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Sticky Expectations: Responses to Persistent Over-Optimism in Marriage, Employment Contracts, and Credit Card Use

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STICKY EXPECTATIONS: RESPONSES TO PERSISTENT OVER-OPTIMISM IN MARRIAGE, EMPLOYMENT CONTRACTS, AND CREDIT CARD USE

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Most people underestimate the likelihood that they will experience negative events and overestimate the likelihood that the law will protect them if those events occur. Many of these mispredictions are highly resistant to change even in the face of accurate and available information. This Article illustrates the consequences of these "sticky" expectations using examples from marriage, employment, and credit card regulation. In each of these areas, erroneous expectations create costs. The largest and most common cost is the failure to adequately self-insure against future negative events like divorce, job loss, or high debt. But proposals for correcting irrational expectations can be costly, in part because unrealistic optimism can also create benefits. This Article develops a Calabresian cost-benefit framework to help us to assess those costs and benefits sensibly, arguing that policy makers should seek to minimize the sum of the cost of disparities between expectations and reality and the cost of reducing those disparities. This approach can help to determine whether it is worth implementing legal reform to close the gap between expectations and reality, and if so, whether to do so by attempting to change the expectations or by changing the law to correspond to existing expectations. This framework provides reasons to rethink existing proposals aimed at informing or debiasing people through law.

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INTRODUCTION

Many people have erroneous beliefs about whether and under what circumstances the law will shield them from the consequences of a negative event. In some contexts, the vast majority of the population systematically mispredicts both the content of the law and its likely effects on their lives. Many of these mispredictions are highly resistant to change even in the face of accurate and available information. This Article illustrates the consequences of these "sticky" expectations using examples from marriage, employment, and credit card regulation. In each of these areas, erroneous expectations create costs. The largest and most common cost is the failure to adequately self-insure against future negative events like divorce, job loss, or high debt. This Article develops a Calabresian cost-benefit framework to assess possi-

ble legal responses to sticky expectations. This framework provides reasons to rethink existing proposals aimed at informing or debiasing people through law.

In many aspects of their lives, most people are irrationally optimistic about their futures. They do not think that negative events will happen to them,[1] and sometimes also believe that the law will protect them if the negative event occurs.[2] For instance, couples entering marriages radically underestimate their likelihood of divorce.[3] They also radically overestimate the likelihood that, if they do divorce, the law will provide a financial safety net for the poorer partner by awarding alimony.[4]

This irrational optimism can create substantial costs. First, it means that people do not adequately plan for divorce or other negative events, and fail to take steps that they might otherwise have taken to insure against their costs. Divorce leaves many women substantially poorer than they were during the marriage,[5] in part because they often leave the workforce during marriage and thus have less post-divorce earning potential. Had they been less optimistic during the marriage, some of these women might have chosen to maintain their work skills, thus self-insuring against the costs of divorce. Irrational optimism can also inflict emotional costs: when expectations are frustrated, people experience needless emotional harm. Loss aversion magnifies these harms—most people are extremely hesitant to accept unexpected losses and will enter high-risk gambles in the irrational hope of averting them.[6] These gambles often take the form of litigating weak claims, which impose unnecessary litigation costs on the parties and the legal system.[7]

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1 Neil D. Weinstein, *Unrealistic Optimism About Future Life Events*, 39 J. PERSONALITY & SOC. PSYCHOL. 806, 806 (1980).

2 *See* Pauline T. Kim, *Norms, Learning, and Law: Exploring the Influences on Workers' Legal Knowledge*, 1999 U. ILL. L. REV. 447, 465.

3 Lynn A. Baker & Robert E. Emery, *When Every Relationship Is Above Average: Perceptions and Expectations of Divorce at the Time of Marriage*, 17 L. & HUM. BEHAV. 439, 443 (1993).

4 *See id.*

5 *See* Richard V. Burkhauser et al., *Wife or Frau, Women Do Worse: A Comparison of Men and Women in the United States and Germany After Marital Dissolution*, 28 DEMOGRAPHY 353, 356 tbl.1, 358 (1991).

6 *See* Amos Tversky & Daniel Kahneman, *Advances in Prospect Theory: Cumulative Representation of Uncertainty*, 5 J. RISK & UNCERTAINTY 297, 298, 306, 312 (1992).

7 Daniel Kahneman & Amos Tversky, *Conflict Resolution: A Cognitive Perspective*, *in* CHOICES, VALUES, AND FRAMES 473, 483–84 (Daniel Kahneman & Amos Tversky eds., 2000).

Legal scholars have long recognized, of course, that people are sometimes irrational. But they have too often assumed that the law can change people's irrational expectations—and that doing so would necessarily be a good thing.[8] In reality, some expectations are highly sticky even in the face of accurate contrary information. For instance, informing people of the overall divorce rate and the relevant statistics on alimony does not alter their optimistic predictions about their own futures.[9] Moreover, even when it is possible, correcting over-optimism can impose collateral costs. For instance, optimism may itself be an important ingredient of a successful marriage—and so correcting couples' misperceptions may make marriages unhappier and divorce more likely.[10] A potentially discomforting conclusion emerges: a state seeking to increase the welfare of its citizens might, in some situations, have an interest in *promoting* misperceptions that stem from unrealistic optimism.

This Article adapts Guido Calabresi's famous argument that the law should minimize the sum of the cost of accidents and the cost of preventing accidents.[11] In the context of sticky expectations, the law should again seek to minimize the sum of two costs: the cost of the disparity between subjective expectations and reality, and the cost of responding to that disparity. Policymakers could take one of three general approaches in order to accomplish this goal. First, they could pursue debiasing strategies; that is, they could attempt to correct the erroneous expectations. Second, they could pursue insulating strategies; that is, they could change the law to align it more closely with the prevailing expectation or reduce the costs of the disparity in some other way. Third, they could allow the disparity to persist. Each choice carries costs. This Article focuses primarily on the costs and benefits of debiasing strategies. It also offers preliminary thoughts on several insulating strategies.

Sticky expectations predominantly result from optimistic biases. Two such biases are particularly relevant to the examples in this Arti-

8 The traditional assumption in Law and Economics literature has been that legal changes beget accurate changes in people's expectations. *See* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 4 (6th ed. 2003) ("The concept of man as a rational maximizer of his self-interest implies that people respond to incentives—that if a person's surroundings change in such a way that he could increase his satisfactions by altering his behavior, he will do so."). For a discussion of specific proposals aimed at changing expectations, *see infra* Parts III.A.4, III.B.4, III.C.4.

9 Baker & Emery, *supra* note 3, at 443.

10 *See* Sanjay Srivastava et al., *Optimism in Close Relationships: How Seeing Things in a Positive Light Makes Them So*, 91 J. PERSONALITY & SOC. PSYCHOL. 143, 151 (2006).

11 *See* GUIDO CALABRESI, THE COSTS OF ACCIDENTS 26 (1970).

cle. First, people tend to believe that they are less likely than the average person to experience negative events like divorce and job loss.[12] This tendency is especially pronounced when people perceive that they have some degree of control over whether the negative event occurs.[13] This pattern is generally referred to as the above-average effect. Second, people tend to interpret ambiguous information in self-serving ways and therefore become overly confident in their predictions.[14] This pattern is generally called the self-serving bias.

Some expectations are stickier than others. Their stickiness is largely a function of their psychological source. The above-average effect is difficult to correct. Because people do not feel that they are average, providing information about the average person is seldom useful. Even providing personalized risk information has only fleeting and inconsistent effects on the strength of the above-average effect.[15] Self-serving biases, on the other hand, may be easier to correct. Lab studies show that people can be debiased by being forced to consider other plausible interpretations of ambiguous information.[16] Although real-world expectations may be stickier, it is possible that similar but intensified interventions could unstick them.

Although most sticky expectations result from a combination of the above-average effect and the self-serving bias, in many situations one of these two biases will play the dominant role. This will affect the choice and potential effectiveness of debiasing strategies. For instance, sticky expectations about marriage are primarily a reflection of the above-average effect. Spouses accurately predict the probability that the average person will get divorced, but believe that these statistical base rates are not probative of their own probability of divorcing.[17] Similarly, spouses accurately predict that courts usually do not award alimony and yet also overwhelmingly predict that they will be among the minority to benefit from this post-divorce safety net.[18] Like all above-average effects, these expectations are difficult to debias. And as noted above, even if debiasing were possible in the marriage context, it might not be advisable because preliminary data suggest that

12 Weinstein, *supra* note 1, at 810.

13 N.C. Higgins et al., *The Controllability of Negative Life Experiences Mediates Unrealistic Optimism*, 42 SOC. INDICATORS RES. 299, 319 (1997).

14 *See* Linda Babcock & George Loewenstein, *Explaining Bargaining Impasse: The Role of Self-Serving Biases*, 11 J. ECON. PERSP. 109, 110 (1997).

15 *See* Matthew W. Kreuter & Victor J. Strecher, *Changing Inaccurate Perceptions of Health Risk: Results from a Randomized Trial*, 14 HEALTH PSYCHOL. 56, 57, 61, 63 (1995).

16 Babcock & Loewenstein, *supra* note 14, at 115.

17 *See* Baker & Emery, *supra* note 3, at 443.

18 *See id.*

there is a causal relationship between optimism and long-term relationship satisfaction.[19]

This analysis of marital optimism sheds light on the potential pitfalls of a number of recent proposals. For example, Jeffrey Stake has suggested making prenuptial agreements mandatory in order to skirt the bluntness of a single default rule.[20] To the extent that mandatory premarital bargaining creates conflict and reduces marital optimism, its cost may exceed its benefits. Similarly, proponents of premarital counseling should carefully examine the content of these interventions in order to ensure that they do not needlessly burden marital optimism.

It may be possible to mitigate the costs of excessive marital optimism (such as poor financial planning) without incurring the costs of dissipating that optimism. To do so, policymakers should consider insulating strategies rather than debiasing strategies. One such insulating strategy would be to change the law to align it more closely with prevailing expectations. That is, policymakers could consider changing the default rules of alimony to increase post-divorce income sharing, helping fulfill spouses' expectations of long-term financial ties.

The framework produces different results in different contexts. At-will employees overwhelmingly believe that they have broad legal protections against termination.[21] They persist in this belief even when they are told that their company expressly "reserves the right to discharge employees at any time, for any reason, with or without cause."[22] This sticky expectation is primarily a consequence of self-serving assumptions that arise in the face of ignorance. Here, although the company's statement surely implies that at-will employment is legal, it does not explicitly say anything about the state of the law. Most workers likely assume that the disclaimer must not be legally enforceable.[23] Because this error results from self-serving biases rather than the above-average effect, it may be susceptible to relatively inexpensive debiasing. Unlike spouses, who have roughly accurate beliefs about alimony law but are unrealistically optimistic about their personal likelihood of receiving this legal protection, at-will employees do not have accurate beliefs about the current state of

19 *See* Sandra L. Murray et al., *The Benefits of Positive Illusions: Idealization and the Construction of Satisfaction in Close Relationships*, 70 J. PERSONALITY & SOC. PSYCHOL. 79, 92 (1996); Srivastava et al., *supra* note 10, at 144, 151.

20 Jeffrey Evans Stake, *Mandatory Planning for Divorce*, 45 VAND. L. REV. 397, 425–29 (1992).

21 Kim, *supra* note 2, at 465.

22 *Id.*

23 *See id.*

law. The beliefs of at-will employees are therefore currently verifiable in a way that the predictions of spouses are not. This has important consequences for debiasing. Worker misperceptions can be corrected through targeted transfers of information.[24]

Debiasing at-will employees probably will not generate large collateral costs. Better informed employees may feel less secure in their jobs, which could carry emotional costs. But if so, employees will have an incentive to bargain for more job protections. Although few employees will be able to bargain for an individualized employment contract, many will be able to bargain with their feet by moving to a company that offers job security[25] or to self-insure against potential job loss in other ways. And to the extent that the loss of job-related optimism hampers work productivity, employers too will have more incentive to provide job protections. Put another way, if employees and employers shared accurate information about the nature of the employment relationship, they would be likely to bargain for terms of that relationship that tend to maximize its benefits for both parties. Employees' irrational optimism, on the other hand, creates an information asymmetry that makes it less likely that the ultimate bargain will be welfare-maximizing.

Again, this analysis sheds light on recent reform proposals. For instance, Cass Sunstein and Cynthia Estlund have each independently proposed shifting the default rule of employment from at-will to for-cause.[26] Employees would only be able to waive for-cause protections

24 Many disclosure strategies, and in particular simple warning labels, have been widely criticized in the legal literature as ineffective. *See generally* Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1195 (1994). However, empirical examinations of even simple, static warning labels have consistently concluded that warnings have useful—albeit modest—effects on behavior. *See, e.g.*, Jennifer J. Argo & Kelley J. Main, *Meta-Analyses of the Effectiveness of Warning Labels*, 23 J. PUB. POL'Y & MARKETING 193, 205 (2004) (examining forty-eight studies and concluding that "[c]onsistent with Cox and colleagues' (1997) meta-analysis, the present research indicates that warnings influence behavior"); Eli P. Cox III et al., *Do Product Warnings Increase Safe Behavior? A Meta-Analysis*, 16 J. PUB. POL'Y & MARKETING 195, 198–99 (1997) (finding that warnings increased safe behavior in fifty-three of seventy-nine experimental conditions, and overall warnings increased the number of people engaging in safe behavior by eleven to twenty percent).

25 The best estimate available indicates that approximately fifteen percent of U.S. firms voluntarily offer for-cause protections. J. Hoult Verkerke, *An Empirical Perspective on Indefinite Term Employment Contracts: Resolving the Just Cause Debate*, 1995 WIS. L. REV. 837, 867. If the demand for such protections grew, it is likely that more firms would offer them, thereby increasing the likelihood that employees could bargain with their feet.

26 Cynthia L. Estlund, *How Wrong Are Employees About Their Rights, and Why Does It Matter?*, 77 N.Y.U. L. REV. 6, 23–24 (2002); Cass R. Sunstein, *Human Behavior and the*

if their waiver was "knowing and voluntary."[27] Their purpose is to create a penalty-default rule that gives employers incentives to disclose information about for-cause and at-will employment. In short, their purpose is to debias. There are multiple reasons to doubt that this debiasing method will be more effective than simple disclosures. For example, the source of a disclosure is important to its credibility, and at least in this narrow context the government is perceived as more credible than a self-interested employer.[28] A "knowing and voluntary" standard will also create significantly higher litigation costs. The exact contours of this standard are unclear, and even recent efforts to define "knowing and voluntary" in a more systematic way fail to provide useful guidance to courts.[29] Because the erroneous expectations of at-will employees are rooted in a verifiable factual mistake, they should be fairly easy to correct without recourse to amorphously heightened standards of a "knowing and voluntary" waiver.

In addition to marriage and employment, sticky expectations are likely to occur in the credit card context. It is likely that many credit card consumers systematically underestimate their likelihood of borrowing in the future, and overestimate the amount that they will repay each month.[30] These predictions are likely to be highly sticky because they are rooted in an above-average effect. The strength of an above-average effect is a function of perceived control.[31] Credit card consumers have substantial control over how often they use their credit card, and how much they repay each month. This nominal control fosters overconfidence and leads a subset of credit card consumers to accrue much more debt than they originally intended.

Over-optimism in relation to credit card debt poses different challenges than over-optimism in marriage or employment. In the context of marriage, individuals do not have the benefit of repeated opportunities to learn, and one's first mistake may be very costly. Sim-

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Law of Work, 87 VA. L. REV. 205, 231–32, 244 (2001) (quoting similar language employed in the anti-discrimination context at 29 U.S.C. § 626(f)(1) (2006)).

27 Estlund, *supra* note 26, at 23–24; Sunstein, *supra* note 26, at 244.

28 *See* Eli P. Cox III & Michael S. Wogalter, *Warning Source, in* HANDBOOK OF WARNINGS 111, 119 (Michael S. Wogalter ed., 2006).

29 *See infra* notes 243–53 and accompanying text.

30 Oren Bar-Gill, *Seduction by Plastic*, 98 NW. U. L. REV. 1373, 1375–76 (2004).

31 David Dunning et al., *Flawed Self-Assessment: Implications for Health, Education, and the Workplace*, 5 PSYCHOL. SCI. PUB. INT. 69, 80 (2004) ("One of the strongest moderators of unrealistic optimism is perceived control. The greater a person's perceived control over an event or its outcome, the stronger the person's optimistic bias." (citation omitted)); N.C. Higgins et al., *supra* note 13, at 319.

ilarly, people do not change jobs very often[32] and therefore have limited opportunity to obtain feedback that counteracts their overoptimism. In the credit card context, by contrast, individuals have the opportunity to learn each time they receive their monthly statement.[33] But even if all consumers learn from their mistakes, this learning process can be quite costly for a minority of credit card consumers. At its extreme, increased debt leads to bankruptcy, and the increasing availability of consumer credit is at least partially responsible for the increases in bankruptcy filings over the last fifteen years.[34]

Because the majority of credit card consumers who accrue more debt than they intend are likely to exhibit strong above-average effects, existing disclosure-based proposals are likely to be ineffective. Oren Bar-Gill has proposed providing credit card customers with individualized predictions of how much they might borrow in the future.[35] However, similar interventions have been studied in the public health context, and researchers have generally concluded that providing individualized risk assessments has only a fleeting and inconsistent impact on the above-average effect.[36]

Insulating strategies—such as banning certain credit card terms or imposing limits on interest rates—are not likely to produce significantly better results. Policymakers need to be especially cognizant of the collateral costs that regulations might impose on the bulk of consumers who do not experience high costs from credit card debt. This may be an area where some regulations can create net benefits, but any intervention sweeping enough to prevent the costs of high debt will probably come with unacceptably high collateral costs. If this is the case, then policymakers should focus on reducing the costs of

32 *See* Robert E. Hall, *The Importance of Lifetime Jobs in the U.S. Economy*, 72 AM. ECON. REV. 716, 716 (1982) (finding that more than twenty-five percent of workers are in a job that will last twenty or more years).

33 *See* Angela Littwin, *Beyond Usury: A Study of Credit-Card Use and Preference Among Low-Income Consumers*, 86 TEX. L. REV. 451, 473–78 (2008) (interviewing low-income women who reported accruing substantial debt when they first obtained a credit card, and who later adopted ways to limit the temptation to borrow).

34 *See* RONALD J. MANN, CHARGING AHEAD 69 (2006) (reporting aggregate country level data that suggests a link between increases in credit card debt and increases in bankruptcies one to three years later); Robert M. Lawless, *The Paradox of Consumer Credit* 63 (Univ. of Ill. Law & Econ. Working Paper Series, Working Paper No. LE06-015, 2006), *available at* http://ssrn.com/abstract=906868 (finding that increases in credit card debt increase bankruptcy rates, but only when the debt surpasses a threshold level).

35 Bar-Gill, *supra* note 30, at 1417–19.

36 Kreuter & Strecher, *supra* note 15, at 57, 61.

learning in this context, and on creating structures that allow knowledgeable consumers to implement their preferences.[37]

Part I of this Article draws from a wealth of theoretical and empirical literature on optimism biases to outline the sources of erroneous expectations. Part II discusses various debiasing techniques and their empirical support or lack thereof. It pays special attention to the problems associated with debiasing heterogeneous populations that are likely to contain people who are overly optimistic, people who are perfectly rational, and people who are overly pessimistic. Part III identifies sticky expectations in the contexts of marriage, at-will employment, and credit card use, and assesses the viability of debiasing techniques in these case studies. It also offers preliminary thoughts on several insulation strategies.

I. STICKY EXPECTATIONS

Sticky expectations predominantly result from optimistic biases. Two patterns identified by the literature on optimistic biases are particularly relevant to the examples in this Article. First, people tend to believe that they are less likely than the average person to experience negative events like divorce and job loss.[38] This pattern is generally referred to as the above-average effect, although scholarship in economics, psychology, and law has not yet coalesced around a uniform term. Second, people tend to interpret ambiguous information in self-serving ways and therefore become overly confident in their self-serving predictions. This pattern is generally referred to simply as the self-serving bias.

A. *The Above-Average Effect, Comparative Optimism, and Overconfidence*

"[P]eople have a pervasive tendency to believe they are better than others in a multitude of ways and that life's negative events are less likely to befall them than their peers."[39] Compared to others, people overwhelmingly think that they are smarter,[40] better drivers,[41]

37 For policy suggestions on dealing with the latter goal, see Littwin, *supra* note 33, at 470, 472 (noting that credit card consumers currently lack sufficient means of implementing their desires to limit their access to easy credit as a self-control mechanism).

38 *See* Weinstein, *supra* note 1, at 810 tbl.1.

39 John R. Chambers & Paul D. Windschitl, *Biases in Social Comparative Judgments: The Role of Nonmotivated Factors in Above-Average and Comparative-Optimism Effects*, 130 PSYCHOL. BULL. 813, 813 (2004).

40 *See* Lauri Larwood & William Whittaker, *Managerial Myopia: Self-Serving Biases in Organizational Planning*, 62 J. APPLIED PSYCHOL. 194, 196 tbl.1 (1977).

better leaders,[42] better managers,[43] better workers,[44] healthier,[45] more socially skilled,[46] more sensitive,[47] more ethical,[48] more charitable,[49] more likely to vote,[50] more productive,[51] and (ironically) less susceptible to optimistic biases.[52] Similar tendencies exist both among college students—the most commonly tested population—and among the broader American population.[53] This form of optimism is commonly referred to as the "above-average" effect.[54]

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41 *See* David Dunning et al., *Ambiguity and Self-Evaluation: The Role of Idiosyncratic Trait Definitions in Self-Serving Assessments of Ability*, *in* HEURISTICS AND BIASES 324, 324 (Thomas Gilovich et al. eds., 2002).

42 *See id.* (noting that seventy percent of students think that they are above average in leadership ability).

43 *See* Larwood & Whittaker, *supra* note 40, at 194 ("[M]anagement students consistently overestimated their abilities; in a marketing exercise, they likewise indicated that a hypothetical firm, of which they were sales managers, would quickly overtake established competition.").

44 *See* Dunning et al., *supra* note 31, at 90.

45 *See id.* at 72 (reporting optimism in flu risk); Weinstein, *supra* note 1, at 810 tbl.1 (examining perceptions of risk for heart attack, lung cancer, cavities, and gum problems).

46 *See* Dunning et al., supra note 41, at 324 (noting that twenty-five percent of students believe that they are in the top one percent in their ability to get along with others).

47 *See* Dunning et al., *supra* note 31, at 72 (reporting that sixty percent of students felt that they were in the top ten percent in terms of interpersonal skills).

48 RAYMOND BAUMHART, AN HONEST PROFIT 20–24 (1968).

49 *See* Dunning et al., *supra* note 31, at 72.

50 *See id.*

51 See K. Patricia Cross, *Not Can, But* Will *College Teaching Improve?*, NEW DIRECTIONS FOR HIGHER EDUC., Spring 1977, at 1, 4 (reporting that ninety-four percent of all college professors think that they do above average work).

52 Dunning et al., *supra* note 31, at 72; Emily Pronin et al., *Objectivity in the Eye of the Beholder: Divergent Perceptions of Bias in Self Versus Others*, 111 PSYCHOL. REV. 781, 785 (2004).

53 Christine Jolls, *Behavioral Economics Analysis of Redistributive Legal Rules*, 51 VAND. L. REV. 1653, 1660 (1998); *see also* Nathan M. Radcliffe & William M.P. Klein, *Dispositional, Unrealistic, and Comparative Optimism: Differential Relations with the Knowledge and Processing of Risk Information and Beliefs About Personal Risk*, 28 PERSONALITY & SOC. PSYCHOL. BULL. 836, 839–40 (2002) (finding above-average effect in adult populations for health risks); Neil D. Weinstein, *Unrealistic Optimism About Susceptibility to Health Problems: Conclusions from a Community-Wide Sample*, 10 J. BEHAV. MED. 481, 488–89 (1987) (analyzing over-optimism among eighteen to sixty-five year olds and finding age correlated with the degree of a subject's over-optimism for only three out of thirty-two hazards: insomnia, food poisoning, and deafness).

54 Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 204 (2006). Because people selectively interpret information, they not only systematically underestimate their relative risk of experiencing a negative event, they also underestimate their absolute level of risk. *Id.* at 204–05.

People also think that they are less likely than others to experience heart attacks,[55] heart disease,[56] strokes,[57] skin cancer,[58] alcoholism,[59] car accidents,[60] divorces,[61] unemployment,[62] unwanted pregnancy,[63] and criminal victimization.[64] This is sometimes referred to as "comparative optimism" but it is in part another manifestation of the above-average effect; people feel they are above average about their ability to exert control over negative events. When they are assured that a potential negative event is truly random, people exhibit minimal above-average effects.[65] But when people have even a very small amount of control over the negative event, such as being injured in an earthquake, they exhibit unrealistic optimism.[66] The relationship between optimism and control can also be seen on a global personality level. People who believe that they can control a wider variety of events exhibit higher levels of unrealistic optimism, and people who believe that they have little control have lower levels of unrealistic optimism.[67] Overall, research has shown a strong and consistent link between the above-average effect and perceptions of control.[68]

Over-optimism is not limited to judgments about one's risk or abilities *relative* to other people. It also affects judgments in a more

55 *See* Neil D. Weinstein & William M. Klein, *Resistance of Personal Risk Perceptions to Debiasing Interventions*, 14 HEALTH PSYCHOL. 132, 134 tbl.1 (1995).

56 *Id.* at 134–35.

57 Kreuter & Strecher, *supra* note 15, at 60.

58 Thomas A. Morton & Julie M. Duck, *Communication and Health Beliefs: Mass and Interpersonal Influences on Perceptions of Risk to Self and Others*, 28 COMM. RES. 602, 610–11 (2001).

59 *See* Weinstein & Klein, *supra* note 55, at 135.

60 *See id.* at 134.

61 *See* Baker & Emery, *supra* note 3, at 444; Weinstein, *supra* note 1, at 810 tbl.1.

62 *See* Weinstein, *supra* note 1, at 810 tbl.1.

63 Jerry M. Burger & Linda Burns, *The Illusion of Unique Invulnerability and the Use of Effective Contraception*, 14 PERSONALITY & SOC. PSYCHOL. BULL. 264, 264 (1988).

64 *See* Linda S. Perloff & Barbara K. Fetzer, *Self-Other Judgments and Perceived Vulnerability to Victimization*, 50 J. PERSONALITY & SOC. PSYCHOL. 502, 504 tbl.1 (1986).

65 *See* Colin Camerer & Dan Lovallo, *Overconfidence and Excess Entry: An Experimental Approach*, 89 AM. ECON. REV. 306, 308, 311 (1999).

66 Jerry M. Burger & Michele L. Palmer, *Changes in and Generalization of Unrealistic Optimism Following Experiences with Stressful Events: Reactions to the 1989 California Earthquake*, 18 PERSONALITY & SOC. PSYCHOL. BULL. 39, 41–43 (1992) (finding that students did not exhibit over-optimism about the risks of natural disasters three days after a major earthquake, but over-optimism returned three months after the quake).

67 Chambers & Windschitl, *supra* note 39, at 816.

68 Dunning et al., *supra* note 31, at 80 ("One of the strongest moderators of unrealistic optimism is perceived control. The greater a person's perceived control over an event or its outcome, the stronger the person's optimistic bias." (citation omitted)).

objective way. Self-assessments of intelligence, athleticism, work performance, interviewing skill, ability to detect lies, knowledge, and ability to make accurate predictions have only a mild correlation with performance when measured on objective scales.[69] The most studied of these phenomenon is the tendency for people to exhibit overconfidence in their ability to correctly answer general knowledge questions. When people claim to be ninety percent sure of their answers to such questions, they tend to be right between forty and seventy-five percent of the time.[70] This pattern also occurs when people are measuring their confidence that one of their predictions will come true. For example, when business school students indicated that they were one hundred percent sure that they would receive more than a certain number of job offers, they were correct only seventy percent of the time.[71]

The above-average effect and comparative optimism are specific manifestations of an even larger set of optimism biases. For example, the "attributional bias" describes people's tendency to attribute positive outcomes to their own skill while attributing negative outcomes to bad luck or other external causes.[72] Beliefs about what is fair are also highly influenced by the person's interests and powers.[73] Optimism-related biases also affect the way that people collect and interpret information, the predictions that people make, and the confidence that people have in their predictions.

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69 *Id.* at 71–72.

70 *See* Fergus Bolger & Dilek Önkal-Atay, *The Effects of Feedback on Judgmental Interval Predictions*, 20 INT'L J. FORECASTING 29, 30 (2004) (requesting that subjects create ninety percent confidence intervals by choosing two bounds for a quantitative answer, and finding that these bounds contained the correct answer only thirty-six to fifty-eight percent of the time); Baruch Fischhoff et al., *Knowing with Certainty: The Appropriateness of Extreme Confidence*, 3 J. EXPERIMENTAL PSYCHOL.: HUM. PERCEPTION & PERFORMANCE 552, 552 (1977) (finding that people who expressed a confidence of ninety percent were right seventy-five percent of the time).

71 Stephen J. Hoch, *Counterfactual Reasoning and Accuracy in Predicting Personal Events*, 11 J. EXPERIMENTAL PSYCHOL.: LEARNING, MEMORY & COGNITION 719, 722, 724 (1985).

72 Amy H. Mezulis et al., *Is There a Universal Positivity Bias in Attributions? A Meta-Analytic Review of Individual, Developmental, and Cultural Differences in the Self-Serving Attributional Bias*, 130 PSYCHOL. BULL. 711, 711 (2004) (collecting and analyzing 266 studies of the "attributional bias" and concluding that the effect is pervasive despite being more severe in North America as compared with several Asian countries).

73 George Loewenstein & Don Moore, *When Ignorance Is Bliss: Information Exchange and Inefficiency in Bargaining*, 33 J. LEGAL STUD. 37, 39–42 (2004).

B. The Self-Serving Bias

Many people interpret information in self-serving ways. This is commonly referred to as the self-serving bias. These patterns have also been studied under the labels of cognitive dissonance and schema reinforcement.[74] The literature from each of these areas comes to similar conclusions. When people search for information from their memory or from the outside world, their "'search is biased in favor of information that is consistent with [their] desired conclusions.'"[75] For example, in three studies of litigation-related bargaining, subjects who were assigned the role of a plaintiff in a tort suit assigned more importance to those facts that favored a large award for the plaintiff.[76] Subjects assigned the role of the defendant put greater weight on facts that were favorable to them.[77]

The results of these studies are not limited to inexperienced bargainers in laboratory settings. Lawyers and professional negotiators also exhibit self-serving biases. In one study of Pennsylvania labor negotiations, teachers' unions and school board presidents separately identified school districts as relevant "comparable" districts for purposes of negotiating a labor contract.[78] This information was not shared, so there was no incentive to select comparison schools strategically.[79] The wages at the schools picked by the union were modestly higher than the wages at the schools picked by the school board president.[80] These modest differences produced large disagreements. These differences were significantly related to the frequency of past strikes. The authors estimated that a discrepancy in the estimation of "comparable" wages of about $1000 annually (or about three percent

74 *See* Sandy L. Robinson, *Trust and Breach of the Psychological Contract*, 41 ADMIN. SCI. Q. 574, 576 (1996) ("A long history of research on cognitive consistency and attitude change has found that people act in ways that preserve their established knowledge structures, perceptions, schemata, and memories.").

75 Babcock & Loewenstein, *supra* note 14, at 114 (quoting Rasyid Sanitioso et al., *Motivated Recruitment of Autobiographical Memories*, 59 J. PERSONALITY & SOC. PSYCHOL. 229, 229 (1990)); *see also* Shelley E. Taylor & Jonathon D. Brown, *Illusion and Well-Being: A Social Psychological Perspective on Mental Health*, 103 PSYCHOL. BULL. 193, 194 (1988) ("'Instead of a naive scientist entering the environment in search of the truth, we find the rather unflattering picture of a charlatan trying to make the data come out in a manner most advantageous to his or her already-held theories.'" (quoting SUSAN T. FISKE & SHELLEY E. TAYLOR, SOCIAL COGNITION 88 (1984)))

76 Babcock & Loewenstein, *supra* note 14, at 114–15.

77 *Id.*

78 *Id.* at 116–17.

79 *Id.*

80 *Id.* at 117.

of total salary) increases the risk of a strike by almost fifty percent compared to a district where there is no discrepancy.[81]

Self-serving biases can be sticky. Indeed, self-serving optimism increases when people have more information.[82] As the number of plausibly relevant pieces of information increases, the number of plausible interpretations often increases as well. People take advantage of the ambiguity and "place great weight on evidence that is consistent with desired outcomes while heavily discounting contrary evidence."[83]

II. A CALABRESIAN APPROACH

In 1970, Guido Calabresi published *The Costs of Accidents.* In it he asserted that "the principal function of accident law is to reduce the sum of the costs of accidents and the costs of avoiding accidents."[84] Calabresi's simple formula mirrored more formal models of cost-benefit analysis, and serves as a useful starting point for areas well outside tort law.

In the context of sticky expectations, a Calabresian approach would seek to minimize the sum of two costs: the cost of unrealistic expectations, and the cost of responding to these unrealistic expectations. Policymakers could take one of three general approaches in order to accomplish this goal. First, they could attempt to change expectations. Because many of these erroneous expectations are

81 *Id.* For evidence that professionals are nonetheless less susceptible to biases than other populations, see Russell Korobkin & Chris Guthrie, *Psychology, Economics, and Settlement: A New Look at the Role of the Lawyer,* 76 TEX. L. REV. 77, 100–21 (1997) (finding that lawyers were less susceptible than undergraduates to a host of biases influencing their choice to settle a hypothetical case).

82 Dunning et al., *supra* note 41, at 328–29 (finding that as the available criteria to evaluate one's performance increased from two to four to six to infinity, so did above-average effect); Leigh Thompson & George Loewenstein, *Egocentric Interpretations of Fairness and Interpersonal Conflict,* 51 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 176, 188–89 (1992) (finding that increasing information provided to unions and workers increases the discrepancy between their assessment of a fair compromise); Nina Mazar et al., The Dishonesty of Honest People: A Theory of Self-Concept Maintenance 36–37 (Apr. 12, 2007) (unpublished manuscript), *available at* http://ssrn.com/abstract=979648 (finding that increasing the number of plausible interpretations of their actions increases their tendency for deception, and that conversely, forcing them to list their own definition of honesty ex ante decreases dishonesty by decreasing their ability to fit a dishonest act into this definition ex post).

83 Dunning et al., *supra* note 41, at 325. This has led several scholars to criticize broad discovery rules in civil litigation, which arguably create more ambiguity than clarity about the strength of any particular lawsuit. *See, e.g.*, Loewenstein & Moore, *supra* note 73, at 50.

84 CALABRESI, *supra* note 11, at 26.

caused by optimistic biases, this Article refers to these expectation-altering interventions as debiasing strategies.[85] Second, policymakers could change one or more relevant legal rules to reduce the costs that result from sticky expectations. This Article refers to such interventions as insulating strategies. Third, policymakers could allow the disparity to persist. Just as not all accidents are worth preventing, not all sticky expectations are worth unsticking. The choice between these three options will depend on how harmful the sticky expectation is, how sticky it is, and whether responding to it would impose collateral costs.

Unlike many of his successors in the law and economics movement, Calabresi concluded that people might deviate in systematic ways from the behavior of a purely rational actor, and that enough people might do so to justify regulation.

> [E]ven if individuals had adequate data for evaluating the risk [of an accident], they would be psychologically unable to do so. The contention is that people cannot estimate rationally their chances of suffering death or catastrophic injury. Such things always happen to "the other guy," and no amount of statistical information can convince an individual that they could happen to him.[86]

Although the current behavioral law and economics literature suggests that this quote may be too strong and too broad, Calabresi basically intuited the above-average effect and comparative optimism. Drawing on the research on cognitive biases that has now forcefully entered the legal academy, this Article focuses on a subset of questions relevant under the Calabresian framework: whether sticky expectations can be altered by legal intervention, and if so whether such debiasing would create more costs than benefits.

A. Debiasing Strategies

The above-average effect is difficult to correct. Because people do not feel that they are average, providing information about the average person is seldom useful.[87] When people are simply told that

85 The terms "debiasing strategy" and "insulating strategy" are borrowed from Jolls & Sunstein, *supra* note 54, at 201, 207.

86 CALABRESI, *supra* note 11, at 56.

87 *See* Alexander J. Rothman & Marc T. Kiviniemi, *Treating People with Information: An Analysis and Review of Approaches to Communicating Health Risk Information*, 25 J. NAT'L CANCER INST. MONOGRAPHS 44, 45 (1999) (citing William M. Klein & Ziva Kunda, *Maintaining Self-Serving Social Comparisons: Biased Reconstruction of One's Past Behaviors*, 19 PERSONALITY & SOC. PSYCHOL. BULL. 732, 732–39 (1993); Alexander J. Rothman et al., *Absolute and Relative Biases in Estimations of Personal Risk*, 26 J. APPLIED SOC. PSYCHOL. 1213, 1213–36 (1996)).

the average person has a certain risk of being in a car accident, having a heart attack, getting an STD, being a victim of burglary, having a sick pet, or getting cancer, most presume that they are above average at taking preventative measures and therefore reduce their risk assessment from this baseline.[88]

Disclosures can be partially successful at increasing risk awareness when people are given the likelihood of experiencing the event if they are a person with above-average protective traits (for example, good driving skill, consistent condom use, responsible about locking doors or taking care of pets, etc.).[89] When given such a "conditional base rate," many people concluded that they were similar to the above-average person and adopted this estimate of their risk without altering it.[90] For example, one study assessed subjects' perceived risk of ever getting into an auto accident on a snowy road.[91] One group of subjects was given a conditional base rate for a person with above-average driving skill and another group of subjects was given a base rate for the average driver. Subjects given the conditional base rates were more likely to exhibit some above-average effect, but the average magnitude of that effect was lower.[92] On balance, it is not clear whether it would be better to have a larger number of moderately optimistic people or a smaller number of highly optimistic people. Therefore, this method of disclosure does not provide policymakers with any clear solution.

Even providing individual customized risk information does not necessarily reduce the above-average effect for any length of time. In one particularly striking study, people were asked to rate their relative risk of having a heart attack, stroke, fatal car accident, and getting cancer.[93] They were also asked questions about their physique, health status, health behaviors, and family history of diseases. These responses were used to calculate an actuarial estimate of their mortality risk, which was given to them after their initial predictions. In a six-month follow-up, optimism for some risks increased, while for others it decreased or remained stable.[94] In a similar study, people were tested and told whether they were above average, average, or below

88 *See* Carla C. Chandler et al., *It Can't Happen to Me . . . Or Can It? Conditional Base Rates Affect Subjective Probability Judgments*, 5 J. EXPERIMENTAL PSYCHOL.: APPLIED 361, 365–67 (1999).

89 *See id.* at 369.

90 *Id.*

91 *Id.* at 363.

92 *See id.* at 365–67.

93 Kreuter & Strecher, *supra* note 15, at 57.

94 *Id.* at 61–62.

average regarding their risk of heart attack.[95] In a follow-up seven to twelve weeks later, most people retained their unrealistic optimism.[96] Only twenty-one percent of people who were told that they had an above average risk of heart attack increased their personal risk assessment.[97] Twelve percent of these people actually lowered their personal risk assessment.[98] Overall, these studies suggest that actuarial information will have some effects, but these effects are inconsistent and ephemeral.[99]

Although the above-average effect is fairly resistant to change, it is easier to limit the effect that self-serving biases have on how people interpret potentially ambiguous information. For example, in an effort to prevent people from interpreting information in self-serving ways in the litigation context, Linda Babcock and George Loewenstein attempted to implement three debiasing strategies.[100] The basic study assigned subjects to the role of plaintiff or defendant in a tort suit, then asked them to read the facts and predict how the judge would rule within a range between $0 and $100,000.[101] Plaintiffs systematically predicted larger awards than defendants.[102] Their first debiasing effort required subjects to read a paragraph about the self-serving bias before they made their prediction.[103] This had no effect on their predictions.[104] Another group of subjects wrote an essay making the best case for their opponent.[105] This strategy was counterproductive, and increased the gap between plaintiffs' and defendants' predictions.[106] A third group of students read a paragraph about the self-serving bias, and then listed the weaknesses of their own case.[107] Although this

95 Meg Gerrard et al., *The Effect of Risk Communication on Risk Perceptions: The Significance of Individual Differences*, 25 J. NAT'L CANCER INST. MONOGRAPHS 94, 97 (1999).

96 *Id.*

97 *Id.*

98 *Id.*

99 *See* Nancy E. Avis et al., *Accuracy of Perceptions of Heart Attack Risk: What Influences Perceptions and Can They Be Changed?*, 79 AM. J. PUB. HEALTH 1608, 1611 (1989) (finding that actuarial risk feedback led many people at high risk of heart attack to improve the accuracy of their perceptions, but cautioning that twelve percent of these high risk subjects developed even greater levels of unrealistic optimism after the feedback).

100 *See* Babcock & Loewenstein, *supra* note 14, at 115–16.

101 *Id.* at 112.

102 *Id.* at 113.

103 *Id.* at 115.

104 *Id.* ("When they learned about the bias, subjects apparently assumed that the other person would succumb to it, but did not think it applied to themselves.").

105 *Id.*

106 *Id.*

107 *Id.* at 115–16.

final debiasing strategy merely combined one ineffective treatment with one counterproductive treatment, it worked. (This highlights the idiosyncratic nature of biases and debiasing techniques, and cautions against making generalizations without testing them.) The plaintiffs and defendants in this group still made divergent predictions, but these predictions only differed by an average of $4674.[108] This was much lower than the average discrepancy that emerged in the absence of any debiasing attempts: $21,783.[109] Many other studies have confirmed these general results and found that people are less prone to self-serving predictions when they are forced to confront plausible arguments that cut against their conclusion.[110]

Christine Jolls and Cass Sunstein have recently proposed exploring the possibility of using some cognitive biases to counteract others.[111] This strategy has the theoretical potential to counteract the above-average effect, comparative optimism, and overconfidence. They note that it may be possible to correct these biases by using the availability heuristic to induce an equal and opposite judgment error. The availability heuristic refers to the tendency of people to overestimate the likelihood that particularly vivid and salient events will occur.[112] Such vivid mental images are more "available" when people make judgments, and therefore have a disproportionate impact on them.[113] The Canadian government has recently used the availability heuristic in a fairly successful attempt to reduce smoking.[114] Instead of including a warning label composed of words, cigarette packs now bear graphic pictures of infected lips and gums.[115] In addition to

108 *Id.* at 116.

109 *Id.*

110 *See, e.g.*, Edward R. Hirt et al., *Activating a Mental Simulation Mind-Set Through Generation of Alternatives: Implications for Debiasing in Related and Unrelated Domains*, 40 J. EXPERIMENTAL SOC. PSYCHOL. 374, 377–379 (2004) (finding that basketball enthusiasts who were induced to think that the Portland Trailblazers would win the championship subsequently reduced their estimate of the probability that they would win after considering whether the Lakers would win instead).

111 Jolls & Sunstein, *supra* note 54, at 210–11; *see also* Kim Witte & Mike Allen, *A Meta-Analysis of Fear Appeals: Implications for Effective Public Health Campaigns*, 27 HEALTH EDUC. & BEHAV. 608, 615–16 (2000) (noting the general effectiveness of fear as a tool for behavioral change).

112 Timur Kuran & Cass R. Sunstein, *Availability Cascades and Risk Regulation*, 51 STAN. L. REV. 683, 685 (1999).

113 *See id.* (citing Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, *in* JUDGMENT UNDER UNCERTAINTY 3, 11 (Daniel Kahneman et al. eds., 1982)).

114 D. Hammond et al., *Impact of the Graphic Canadian Warning Labels on Adult Smoking Behaviour*, 12 TOBACCO CONTROL 391, 391 (2003).

115 *Id.* at 391–92.

images, narrative stories also tend to be more "available" than general statistics. Thus, a personalized story about one man's battle with cancer is likely to have a large effect on risk perceptions.[116] It may be possible to customize this story so that it provides just the right counterbalance to over-optimism.

As the authors acknowledge, this strategy is fraught with practical difficulties. First and foremost, balancing one bias against another may require an enormous amount of fine-tuning. Although they note that using narratives to influence risk perceptions "avoids the difficulty of coming up with an accurate numerical probability estimate"[117] of the population's risk, it creates other problems. Narratives are composed of innumerable elements. Small changes in the story might change its "availability." These changes might also cause it to be more "available" for some subpopulations than others. Thus, small changes must be tested within a number of sub-communities. Given that no one has begun to explore these issues empirically, it is too soon to determine whether this is a plausible debiasing strategy.

The second difficulty with using the availability heuristic to counterbalance over-optimism is that the cure may be worse than the disease. Even if a well-calibrated narrative corrects for the average amount of over-optimism, people may differ widely in their levels of optimism. People who do not suffer severe over-optimism may be induced to *overestimate* their risk after reading the narrative.[118] This is not a problem in all contexts. In the context of smoking, Canada may have concluded that the only optimal level of smoking is zero. Therefore, it would not be concerned about whether formerly rational smokers now overestimate their risk of smoking. In most contexts, however, the goal is not to make all people as pessimistic as possible but rather to increase the accuracy of their predictions. This requires eliminating exaggerated optimism without creating exaggerated pessimism.

Jolls and Sunstein acknowledge the potential to introduce pessimistic biases into the portion of the population that, pre-intervention,

116 George Loewenstein et al., *Statistical, Identifiable, and Iconic Victims*, *in* BEHAVIORAL PUBLIC FINANCE 32, 33 (Edward J. McCaffery & Joel Slemrod eds., 2006) ("Several lines of research have shown that individual cases motivate people more powerfully than statistics, even when the latter are objectively more informative.").

117 Jolls & Sunstein, *supra* note 54, at 212 (citing Alan Schwartz & Louis L. Wilde, *Imperfect Information in Markets for Contract Terms: The Examples of Warranties and Security Interests*, 69 VA. L. REV. 1387, 1459–60 (1983)).

118 *See id.* at 214 (recognizing the potential for consumers to overreact in response to a narrative).

was accurately calculating their risk.[119] They note that this would not occur if optimistic biases and susceptibility to the availability heuristic tend to co-occur.[120] If all of the people who used the availability heuristic also suffered from optimism bias, then vivid narratives could debias without being underinclusive. If all of the people who were immune from over-optimism were also immune from the effects of the availability heuristic, then vivid narratives could debias without being overinclusive. Unfortunately there is no data on whether the various types of bounded rationality tend to co-occur. Until this data is collected and analyzed, we cannot know whether this strategy will create more problems than it will solve.

The challenges of debiasing a heterogeneous population are not only present for Jolls and Sunstein's suggested strategy, but are endemic to all debiasing techniques. Research on heuristics and biases has largely focused on reporting overall averages. These averages may mask a lot of underlying variation.[121] For example, within a population that exhibits a self-serving bias overall, one quarter of people may exhibit a severe bias, while another quarter exhibits mild bias, and the remainder exhibit no bias at all. Broadly speaking, there are two sources of this heterogeneity. First, these differences might stem from personality traits or individual dispositions. I refer to this as dispositional heterogeneity. Similarly, there may be particular situations in which people exhibit stronger self-serving biases, and situations in which no one exhibits a bias. I refer to this as situational heterogeneity. These two assuredly interact in much the same way that nature and nurture interact (some people may be dispositionally prone to exhibit a bias in certain situations but not in others). Nonetheless, it is useful to speak of them as separate types of heterogeneity.

1. Dispositional Heterogeneity

Policymakers could potentially address dispositional heterogeneity by first sorting people into groups that are more and less likely to

119 *Id.* at 229.

120 *Id.* at 229–30.

121 Gregory Mitchell, *Why Law and Economics' Perfect Rationality Should Not Be Traded for Behavioral Law and Economics' Equal Incompetence*, 91 GEO. L.J. 67, 86 n.46 (2002) ("[B]ecause behavioral decision researchers are interested primarily in finding deviations from norms of procedural rationality by any *statistically significant* percentage of subjects (that is, they seek to find nonrandom deviations from the neoclassical economic model, and a small percentage who deviate may suffice for purposes of statistical analysis), an experiment often will be portrayed as having found some 'systematic non-rational tendency' even though less than half of the subjects provided the nonrational response in the experiment.").

exhibit a strong bias, and targeting their efforts on the former. Some researchers have attempted to conduct dispositional sorting, with little success. Studies have identified few observable traits that correlate with either the above-average effect or the degree to which people interpret ambiguous information in self-serving ways.

Neil Weinstein, a pioneer of optimism and debiasing research, examined the correlation between the above-average effect and various demographic variables. He found that the above-average effect does not vary across sex, age, occupation, or educational attainment.[122]

Similarly, there are few observable demographic variables or personality traits that can be used to identify people with a propensity to interpret ambiguous information in self-serving ways. In two negotiation studies, subjects interpreted a set of facts after being assigned a particular role as a union worker or a manager.[123] Both studies generated similar results. Subjects exhibited self-serving biases when they produced estimates of what a fair wage would be.[124] They also exhibited self-serving biases when they rated the importance of various facts; they tended to rate facts as more important if they supported their desired outcome.[125] The author went on to examine individual differences in the magnitude of these two effects. There were no consistent patterns in how a host of personality traits—self esteem, motivation to achieve, self-consciousness, depression, locus of control, need for cognitive closure, or empathy—related to subjects' judgment of what a fair wage would be.[126] Competitive individuals and men showed a somewhat greater propensity to selectively weight facts that were favorable to their position, but no other correlations were significant.

Overall, dispositional sorting appears to be implausible at this time. Jeffrey Rachlinski recently surveyed the literature on dispositional heterogeneity and concluded that no reliable and easily visible traits have yet been identified to allow dispositional sorting.[127] It is

122 *See* Weinstein, *supra* note 53, at 489.

123 Robert D. Yonker, Individual Differences and Egocentrism in Negotiations: Who Is Most Likely to Exhibit the Bias? 25–26 (2003) (unpublished Ph.D. dissertation, University of Missouri, St. Louis).

124 *See id.* at 36 fig.1.

125 *See id.* at 36.

126 *See id.* at 55–59.

127 *See* Jeffrey J. Rachlinski, *Cognitive Errors, Individual Differences, and Paternalism*, 73 U. CHI. L. REV. 207, 224 (2006) (finding that cognitive ability, education, training, and demographic variables had all failed to produce clear correlations with cognitive biases).

possible that researchers will locate identifiable and accurate proxies for these biases, but until they do so dispositional sorting will remain only a theoretical possibility.

2. Situational Heterogeneity

Most of the research on biases and heuristics has reduced situational heterogeneity by placing subjects in a common situation and asking whether they, on average, exhibit a bias.[128] Most debiasing and insulation strategies are similarly situational. Consumer protection laws, for example, tend to be specific to one domain. There are separate statutes that govern disclosure requirements in the context of credit cards, stocks, tobacco, and ladder purchases.[129] Although interest group pressures assuredly contributed to this fractured regulatory regime, these regulations have the added benefit of reducing situational heterogeneity.

Instead of analyzing optimism in all its manifestations, this Article takes advantage of situational heterogeneity to identify areas where optimism is particularly prevalent and particularly costly. For example, more than half of all people report that they have no chance of ever divorcing—that is, they have a zero percent chance of experiencing divorce.[130] Eighty-nine percent of male and ninety-five percent of female college students think that they will never divorce.[131] These numbers are staggering, especially given that most people predict that fifty percent of all couples divorce.[132] In the employment context, at least sixty percent of workers erroneously believe that they have broad legal protections against being fired.[133] Because both divorce and job loss are costly, failing to insure against them can be particularly harmful. In the context of credit cards, there is less data about how many consumers exhibit over-optimism, and how costly these biases might be. Luckily, policymakers can sometimes make informed decisions

128 *See, e.g.*, *supra* notes 123–26 and accompanying text.

129 *See, e.g.*, 15 U.S.C. §§ 77e, 77g, 1637 (2006).

130 *See* Baker & Emery, *supra* note 3, at 443; Heather Mahar, *Why Are There So Few Prenuptial Agreements?* 9 (Harvard Law Sch. John M. Olin Ctr. for Law, Econ., and Bus. Discussion Paper Series, Paper No. 436, 2003), *available at* http://lsr.nellco.org/harvard/olin/papers/436.

131 *How College Women and Men Feel Today About Sex, Aids, Condoms, Marriage, Kids*, GLAMOUR, Aug. 1987, at 261, 263 [hereinafter *Women and Men*] (finding that only eleven percent of college men and five percent of college women thought that they would ever get a divorce), *cited in* Elizabeth S. Scott, *Rehabilitating Liberalism in Modern Divorce Law*, 1994 UTAH L. REV. 687, 700 n.48.

132 Baker & Emery, *supra* note 3, at 443; Mahar, *supra* note 130, at 9.

133 *See* Kim, *supra* note 2, at 465.

even when they only have partial information about biases and their costs.

B. Regulating in the Face of Limited Knowledge: Asymmetric Paternalism

A number of scholars have argued that, when the pattern of biases within the population is unknown, policymakers should only consider "asymmetrically paternalistic" debiasing or insulation techniques.[134] A technique is asymmetrically paternalistic if it has large benefits for biased people, but imposes little cost on unbiased people.[135] For example, cooling-off periods for important contracts (like buying cars or getting married) may help impulsive people avoid hasty decisions while imposing only a small cost on rational actors.[136] Under this guideline, an intervention is likely to be welfare-enhancing even if there are relatively few biased individuals.

But asymmetrically paternalistic interventions are not the only ones that fit the framework that these scholars create. They adopt a standard welfare-maximizing analysis.[137] They argue that the benefits of the intervention to the biased group must outweigh the costs of the intervention to the nonbiased group. Specifically their formula is that an intervention is cost effective when

$$(p*B) - ((1 - p)*C) - I > 0$$

where p equals the proportion of people that exhibit the bias, B equals the benefits to each person that exhibits the bias, C equals the costs of the intervention to each person that does not exhibit the bias, and I equals the costs of implementing and maintaining the intervention.[138]

When put into words, this formula is quite simple. It asks whether the benefits ($p*B$) outweigh the sum of two costs: the direct cost of implementing the intervention (I), and any collateral costs that the intervention may impose on unbiased people ($(1 - p)*C$).[139]

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134 *See, e.g.*, Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism,"* 151 U. PA. L. REV. 1211, 1212 (2003).

135 Other scholars have referred to this as "cautious paternalism." *See, e.g.*, Edward J. McCaffery & Joel Slemrod, *Toward an Agenda for Behavioral Public Finance, in* BEHAVIORAL PUBLIC FINANCE, *supra* note 116, at 3, 13.

136 *See, e.g.*, Camerer et al., *supra* note 134, at 1338–39 (discussing the costs of cooling-off periods).

137 *See id.* at 1251.

138 *Id.* at 1219.

139 This formula assumes that any legal intervention will have only positive effects for the biased population. This Article does not make this assumption, and instead considers the possibility that an intervention will be a mixed blessing even for the people it is intended to benefit.

These scholars then conclude that, if p is unknown, the probability that the benefits of a regulation will outweigh its costs is greater when B is large and C is small.[140] Regulating under these circumstances would be asymmetrically paternalistic because the benefits (B) to the biased population (p) are high and the costs (C) to the unbiased population ($1-p$) are low.[141] Therefore, policymakers might still be able to sensibly impose a regulation even if they cannot assess all of the relevant facts (here, the proportion of the population that suffers from a bias).

Although these scholars did not address other potential uses of their formula, it generates guidelines in other situations of partial ignorance. If p is known to be high—that is, if a large proportion of an identifiable population suffers from a bias—then C can approach and even surpass B before regulation would be unjustified. Put another way, when policymakers know that a large portion of the population suffers from a costly bias, they can be fairly certain that an intervention is cost-justified even if they do not know the extent of the costs that the intervention will impose on the unbiased minority. Thus the formula not only justifies asymmetric paternalism but also much more invasive forms of paternalism, provided that a large proportion of the population suffers from a bias. At a minimum, the burden of persuasion shifts in these situations to those wishing to show that an intervention will carry too many collateral costs. As discussed in the case studies, this and similar welfare-maximizing formulas can justify aggressive interventions.

III. Case Studies

A. Marriage and Divorce

1. Evidence of Sticky Expectations

Marriage is perhaps the quintessential context in which people are unrealistically optimistic, and this optimism is highly resistant to change. Couples exhibit at least three overlapping above-average effects that prevent them from accurately assessing the likelihood and potential consequences of divorce.

First, people are notoriously over-optimistic about the probability that they will live happily ever after. Both men and women believe that fifty percent of marriages end in divorce.[142] More than half, however, predict that there is *no* chance that they will divorce, that is, that

140 Camerer et al., *supra* note 134, at 1219.

141 *Id.*

142 Baker & Emery, *supra* note 3, at 443; Mahar, *supra* note 130, at 9.

their probability of divorcing is zero.[143] Even those that predict that there is some chance that they will divorce tend to be highly optimistic. On average, people predict that their chance of getting a divorce is about ten percent.[144] This optimism obviates any incentive to learn about the rules of divorce or to retain any information about them.

Second, even when people are forced to consider the possibility that they will divorce, they are overly optimistic that a court will award alimony in their case. Most people, including new spouses, tend to be adequately informed about the basic rules of divorce, but extremely optimistic about how those rules would apply to them. For example, newly married spouses predict that courts award alimony in forty to fifty percent of cases.[145] Yet over eighty percent of them predict that a court would award alimony in their case.[146]

Third, spouses overestimate the likelihood that their spouse would, in the event of divorce, comply with court ordered support.[147] New spouses accurately predict that twenty percent of women who are awarded alimony never collect a cent.[148] Nevertheless, one hundred percent believed that their spouse would pay every penny.[149] Similarly, they predict that only forty percent of exes collect all of their court-ordered child support, while ninety-eight percent simultaneously believe that they themselves would collect the full amount.[150]

The Calabresian approach requires that policymakers not only know what proportion of the population exhibits a bias, but also the costs that the bias creates. This Article does not attempt to calculate the overall costs of unrealistic optimism in the marriage and divorce,

143 Baker & Emery, *supra* note 3, at 443 (finding that more than half of people who had recently applied for a marriage license felt that they would never divorce); Mahar, *supra* note 130, at 9 (finding that for both law students and the general population, the median person predicted that they had a zero percent chance of divorcing).

144 Mahar, *supra* note 130, at 15 (finding that law students estimated their risk of divorce at seventeen percent, while the general population estimated their risk at ten percent); *Women and Men*, *supra* note 131, at 263 (finding that only eleven percent of college men and five percent of college women thought that they would ever get a divorce).

145 Baker & Emery, *supra* note 3, at 443. This estimate is over-optimistic. *See* CARL E. SCHNEIDER & MARGARET F. BRINIG, AN INVITATION TO FAMILY LAW 329 (3d ed. 2006) ("In 1984, 30% of wives were awarded alimony when both parties were represented by counsel, while not one alimony award was made when neither party was represented by counsel.").

146 Baker & Emery, *supra* note 3, at 443.

147 *Id.*

148 *Id.* at 442.

149 *Id.* at 443.

150 *Id.*

although it offers reasons to believe that the cost is likely to be high. Instead this Article focuses principally on the second question relevant to the Calabresian framework: whether the law could reduce optimism bias, and whether reducing optimism is likely to have adverse collateral consequences. I conclude that debiasing would be difficult, and that the collateral costs of debiasing would be high. Therefore, policymakers should consider insulating strategies. Although I do not undertake a full cost-benefit analysis of various insulating strategies, I offer some preliminary thoughts. Specifically, I argue that the costs of shifting the legal rule to align with existing expectations are probably relatively low and asymmetrically paternalistic: a default rule that increased post-divorce income would likely have substantial benefits for unrealistically optimistic spouses without imposing substantial costs on realistic spouses.

Most spouses probably underinsure against the possibility of divorce. Currently, the law does not reflect spousal expectations of having a lasting marriage or a lasting financial tie even after divorce. All states allow unilateral divorce.[151] Alimony is rare.[152] Most states give great weight to exes' autonomy interests in moving on with their lives without financial obligations toward one another.[153] These states have adopted a "clean break" theory of divorce that focuses on settling all financial disputes at the time of divorce so that such aspects of the marital relationship are severed.[154] Because people erroneously believe that the law will provide a safety net for the poorer spouse, this spouse will probably underinsure against the financial costs of divorce.

The failure to insure against divorce is likely to create substantial costs. First, the very fact that spouses with more realistic expectations might choose to insure against the costs of divorce suggests that there is a deadweight loss: there are welfare-enhancing transactions that are not occurring because of sticky expectations. Second, the distribution of assets upon divorce creates costs even if a spouse would not have

151 *See* Ira Mark Ellman & Sharon Lohr, *Marriage as Contract, Opportunistic Violence, and Other Bad Arguments for Fault Divorce*, 1997 U. ILL. L. REV. 719, 723.

152 *See* SCHNEIDER & BRINIG, *supra* note 145, at 329 (noting that, in 1984, thirty percent of wives received alimony payments when both parties were represented by counsel); Kathrine C. Daniels et al., *Alternative Formulas for Distributing Parental Incomes at Divorce*, 27 J. FAM. & ECON. ISSUES 4, 6 (2006) (collecting studies and noting that spousal support is only awarded in ten to fifteen percent of cases).

153 The conception of autonomy that these states adopt is, of course, debatable. They view autonomy negatively, as freedom from restraint. But autonomy can also be seen positively, as a right to have the means to pursue your goals. Understood in both of these ways, autonomy would require the courts to balance a high wage earner's negative autonomy against a low wage earner's positive autonomy.

154 *See* Scott, *supra* note 131, at 704–05.

rationally insured against this potential loss. After a divorce, ex-wives and children tend to have lower standards of living than they had during the marriage,[155] while husbands enjoy higher standards of living.[156] These gains and losses do not offset one another; even a traditional welfare maximizer who is only interested in maximizing aggregate utility would not be indifferent to this particular change in the distribution of assets.[157] In a wide variety of realms people exhibit loss aversion; the loss of a good is felt more deeply than the gain of a similar good.[158] This is likely to occur not only for individual goods, but for the aggregation of goods and services that collectively create a standard of living. Therefore, when divorce shifts resources from the wife to the husband, the husband's gain will not offset the wife's loss. For a long time, common law courts acted on an intuitive understand-

155 Burkhauser et al., *supra* note 5, at 356.

156 In total, women tend to be much poorer after divorce than before. *See id.* (reporting that between a quarter and a third of women experience a fifty percent decline in their standards of living after divorce or separation); Daniels et al., *supra* note 152, at 19–20 (collecting studies showing that ex-wives suffer a larger financial loss at divorce, while ex-husbands realize a gain in their standard of living).

157 There are, of course, other normative commitments besides efficiency that are relevant to the distribution of assets upon divorce. The fact that efficiency analysis ignores these issues is both a weakness and a strength. The most often cited normative commitment relevant to the distribution of assets upon divorce is a Lockean labor theory of property under which people who contribute to creating wealth should have an ownership interest in it. JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT 17 (Thomas P. Peardon ed., Bobbs-Merrill Co. 1952) (1690) ("The labor of his body and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature has provided . . . , he has mixed his labor with, and joined to it something that is his own, and thereby makes it his property."). This commitment does not produce clear guidance in the case of divorce. Many scholars have argued that our current system of distributing assets upon divorce violates this contribution theory by failing to recognize the contributions of wives; others however, disagree. *Compare* MILTON C. REGAN, JR., ALONE TOGETHER 144–61 (1999) (discussing the trend toward contribution theories in alimony and evaluating various ways of implementing this theory), Martha M. Ertman, *Marriage as a Trade: Bridging the Private/Private Distinction*, 36 HARV. C.R.-C.L. L. REV. 79, 101–03 (2001) (analogizing marriage to a business partnership), *and* Cynthia Lee Starnes, *Mothers as Suckers: Pity, Partnership, and Divorce Discourse*, 90 IOWA L. REV. 1513, 1550–52 (2005) (same), *with* Allen M. Parkman, *The Recognition of Human Capital as Property in Divorce Settlements*, 40 ARK. L. REV. 439, 448 (1987) (concluding that normally "the investment in human capital prior to marriage will be so large and essential relative to the investment after marriage that an individual's human capital should be treated as separate property"). An analysis based on welfare maximization is impoverished to the extent that it ignores this and other normative commitments. However, it is useful for the same reason: it sidesteps discussions of normative commitments that, as applied at least, do not yield any clear consensus.

158 *See* Tversky & Kahneman, *supra* note 7, at 481–83.

ing of loss aversion in the context of marriage by seeking to maintain ex-wives in the style of living to which they had become accustomed.[159]

2. Is Debiasing Possible?

As discussed above, there are few debiasing strategies that have shown promise in reducing the above-average effect.[160] Even exposure to an entire semester of family law—with its traditional focus on divorce law and divorce statistics—does not reduce unrealistic marital optimism among law students.[161]

To the extent that marital over-optimism is the result of self-serving biases, however, debiasing may be possible. Self-serving biases may play a role in marital optimism if, for example, spouses interpret ambiguous actions of their spouses as supportive and caring.[162] Recall that subjects tend to be significantly less biased in their predictions when they are asked to list reasons why their prediction might be incorrect.[163] This pattern was evident in predictions of litigation outcomes,[164] sports outcomes,[165] and one's own skill.[166] Combined, these studies suggest that this debiasing technique is fairly generalizable.

Unfortunately, it is not clear how effective this debiasing strategy will be in the real world. The subjects of these studies were predominantly students solving problems in a lab. They had only a minimal stake in the outcome, and had not invested any effort or money into their position. Engaged couples are in a vastly different position. They have already invested substantially in the relationship, and their judgment is likely to be affected by these sunk costs. As Ward Farnsworth has noted: "The self-serving biases that infect real parties with deep investments in their positions may well be more robust, making superficial exercises [like listing counterarguments] . . . less likely to be effective."[167]

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159 *See* REGAN, *supra* note 157, at 141–44.

160 *See supra* notes 87–99 and accompanying text.

161 *See* Baker & Emery, *supra* note 3, at 448.

162 *See infra* notes 174–75 and accompanying text.

163 *See supra* note 110 and accompanying text.

164 *See* Babcock & Loewenstein, *supra* note 14, at 115–16.

165 *See* Hirt et al., *supra* note 110, at 379.

166 *See* A. Peter McGraw et al., *The Affective Costs of Overconfidence*, 17 J. BEHAV. DECISION MAKING 281, 288–89 (2004).

167 Ward Farnsworth, *The Legal Regulation of Self-Serving Bias*, 37 U.C. DAVIS L. REV. 567, 583 (2003) (discussing the self-serving bias in the context of litigants).

Even if superficial interventions are unlikely to work, the effectiveness of any intervention is probably a function of how demanding it is and how often it is repeated. In the context of marriage, the law could theoretically require that people undergo premarital counseling in order to obtain a marriage license.[168] This counseling could require that couples learn about optimism biases and confront challenges that their marriage might face, and perhaps even reasons why their marriage may fail. Although a single instance of listing the reasons why one's marriage could fail may have little effect, it is plausible that repeated exercises and discussions about the difficulties of marriage could reduce over-optimism. In short, unrealistic marital optimism may be correctable, but it is likely to be expensive to correct.

3. Collateral Costs of Debiasing

Even if the law could reduce unrealistic marital optimism, doing so is likely to have substantial collateral consequences. Unrealistic optimism creates benefits, in addition to its costs. On a global level, unrealistic optimism correlates with happiness.[169] More specifically, couples who score high on composite measures of optimism are more satisfied with their relationship and stay together longer. In one representative study, partners who were more optimistic at the beginning of the experiment were more satisfied with their relationship two years later.[170] This correlation persisted even after controlling for self-reported initial relationship quality.[171] Similar studies have suggested that early optimism increases relationship duration.[172] Although these studies do not directly speak to the effects of optimism on relationships longer than two years, they suggest that optimism creates benefits, even when it is unrealistic.[173]

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168 Louisiana already requires such counseling for couples who choose to enter into a "covenant" marriage. *See* LA. REV. STAT. ANN. § 9:272 (2006).

169 Jolls, *supra* note 53, at 1661.

170 *See* Kimberly K. Assad et al., *Optimism: An Enduring Resource for Romantic Relationships*, 93 J. PERSONALITY & SOC. PSYCHOL. 285, 292 (2007).

171 *Id.*

172 *See, e.g.*, Srivastava et al., *supra* note 10, at 151 (finding, after controlling for initial relationship satisfaction and a host of personality traits, that seventy-five percent of couples with men at or above-median optimism were still together, whereas only fifty-four percent of couples with men at below-median optimism were still together).

173 *See* Murray et al., *supra* note 19, at 92 (finding that partners were more satisfied in relationships when they had inaccurate favorable views of their partners' traits); William B. Swann, Jr. & Michael J. Gill, *Confidence and Accuracy in Person Perception: Do We Know What We Think We Know About Our Relationship Partners?*, 73 J. PERSONALITY & SOC. PSYCHOL. 747, 747 (1997) ("[C]onfidence [about how well you know your part-

The positive effects of optimism in relationships appear to be mediated by perceptions of support. People who are generally optimistic in life are more likely to interpret ambiguous actions of their partner as nurturing and supportive.[174] When conflicts occur, optimistic couples see each other as engaging in more productive conversations.[175] This explanation comports with research on optimism in other areas. For patients with mild health problems, optimism and the perception of control over the disease improves coping, speeds recovery, and reduces symptoms.[176] Unrealistic optimism even has benefits for patients recovering from major surgery[177] or coping with serious diseases. For example, HIV-positive men tend to be more optimistic than HIV-negative men about eventually developing AIDS.[178] This is clearly unrealistic. However, this unrealistic optimism is associated with more productive coping techniques and more health-promoting behavior.[179] In general, dispositional optimism is also related to feelings of control, which are in turn associated with better stress management, less pain, less disability, and reduced depression.[180] These studies do not show that optimism can cure cancer or prevent

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ner] may sometimes contribute to relationship quality even when it is unrelated to accuracy.").

174 Assad et al., *supra* note 170, at 285 (reporting on the effect of dispositional optimism on relationship satisfaction and duration, and finding that it was mitigated by perceptions of support); Srivastava et al., *supra* note 10, at 143, 147 (same).

175 Srivastava et al., *supra* note 10, at 143, 147.

176 Michael F. Scheier & Charles S. Carver, *Optimism, Coping, and Health: Assessment and Implications of Generalized Outcome Expectancies*, 4 HEALTH PSYCHOL. 219, 233–44 (1985).

177 *See* Michael F. Scheier et al., *Dispositional Optimism and Recovery from Coronary Artery Bypass Surgery: The Beneficial Effects on Physical and Psychological Well-Being*, 57 J. PERSONALITY SOC. PSYCHOL. 1024, 1029–30 (1989).

178 Shelley E. Taylor et al., *Optimism, Coping, Psychological Distress, and High-Risk Sexual Behavior Among Men at Risk for Acquired Immunodeficiency Syndrome (AIDS)*, 63 J. PERSONALITY & SOC. PSYCHOL. 460, 463 (1992).

179 *Id.* at 470–72.

180 For a review of several of these studies, see Michael F. Scheier & Charles S. Carver, *Dispositional Optimism and Physical Well-Being: The Influence of Generalized Outcome Expectancies on Health*, 55 J. PERSONALITY 169, 173–81 (1987); Shelley E. Taylor & Jonathon D. Brown, *Positive Illusions and Well-Being Revisited: Separating Fact From Fiction*, 116 PSYCHOL. BULL. 21, 23 (1994) ("[E]xperiments conducted in medical settings clearly demonstrate that people who believe they have control during stressful procedures cope better than those undergoing the same procedures but not exposed to control-enhancing interventions, as indicated by a broad array of physiological, health-related, and affective measures; these effects occur even when that 'control' is largely perceived rather than actual.").

the onset of AIDS,[181] but they do suggest that optimism (even if unrealistic) significantly improves the quality of life that patients experience by improving their ability to cope.[182]

Although the above studies dealt with overall dispositional optimism, it is likely that marriage-specific optimism has even more beneficial effects on marital satisfaction and duration. When people believe that they were "made for each other" they will be more likely to interpret ambiguous actions of their spouses as supportive, loving, and endearing. Optimistic couples who have a strong (even if unrealistic) sense of control over their marital happiness are also likely to cope with conflict more productively. The aftermath of a serious conflict within a marriage is likely to create stress and trepidation about how long the healing process will take. If optimism and perceptions of control help surgery patients recover faster, and help HIV-positive men to cope with the limitations of their lifespan, they are likely to help couples recover faster from disagreements, and cope better with those rifts that never quite heal. A welfare-maximizing state may therefore have an interest in increasing rather than reducing unrealistic marital optimism, at least if it can also insulate individuals from the ex post costs of this optimism.

The high cost of debiasing strategies—both in terms of implementation costs and potential collateral effects of decreased optimism—suggests that policymakers should consider insulation strategies. This Article briefly explores one such strategy: policymakers could alter default divorce laws to better reflect the prevailing expectations of engaged couples.

Many commentators have argued that divorce law should abandon its current "clean break" philosophy and instead maintain a financial link between exes after divorce. The specific policy proposals all share the same elements: (1) substantial post-divorce income sharing based merely on the fact of marriage rather than on need, and (2) a reduction of this sharing over time in order to allow the exes to (eventually) terminate their obligations to one another.[183] Using the ali-

181 *See* Brian D. Doan & Ross E. Gray, *The Heroic Cancer Patient: A Critical Analysis of the Relationship Between Illusion and Mental Health*, 24 CAN. J. BEHAV. SCI. 253, 262–63 (1992).

182 *See* Frode Thuen & Jostein Rise, *Psychological Adaptation After Marital Disruption: The Effects of Optimism and Perceived Control*, 47 SCANDINAVIAN J. PSYCHOL. 121, 126 (2006) (finding that optimism is strongly correlated with emotional adaptation after a divorce).

183 *See, e.g.*, Milton C. Regan, Jr., *Spouses and Strangers: Divorce Obligations and Property Rhetoric*, 82 GEO. L.J. 2303, 2389 (1994) ("[S]pouses' lives have been intertwined in ways that the logic of this rhetoric cannot fully capture. The extent of this interde-

mony regime as an insulation strategy forces the wealthier spouse to bear the cost of his or her partner's unrealistic optimism. Policymakers could instead spread these costs over the entire population. For example, they could use general tax revenue to fund job training programs for divorcées who did not work during a marriage, or they could create other social safety nets specific to divorce. However, assigning the costs to the wealthier spouse has two advantages, one welfarist and one rooted in notions of autonomy. First, tying the financial fortunes of spouses together increases incentive for each of them to maximize their joint marital surplus.[184] Second, the vast majority of prospective spouses believe that a court will award alimony in their case.[185] Therefore, the existence of a robust alimony scheme was probably an integral piece of the bargain that they struck when they were married. Under autonomy theories of contract, the law should enforce this bargain in order to respect the autonomous capacity of each person to make choices for themselves.[186]

Changing the default rule of divorce would be an example of asymmetric paternalism. It would affect those couples who have a severe optimism bias more than it affects other couples. Overly optimistic couples will not adequately prepare for divorce because they expect that they will share in each other's income for an indefinite period of time. The proposed alimony rule enforces this expectation to a great degree. Couples who are not optimistic are in a much better position to contract out of the default rule, whether through prenuptial or postnuptial agreements.

Even if this default rule is costly to contract around, and therefore not asymmetrically paternalistic, it could still be justified. Recall that asymmetric paternalism is a rule of thumb for those cases where a

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pendence is roughly a function of how long individuals are married. As a result, we might require that ex-spouses share the same standard of living for some period of time corresponding to the length of their marriage."); Jana B. Singer, *Divorce Reform and Gender Justice*, 67 N.C. L. REV. 1103, 1117–18 (1989) (proposing a limited-term alimony that would continue for one year for each two years of marriage); Starnes, *supra* note 157, at 1551 (urging an analogy of marriage law and the law of business partnerships, and arguing that income sharing should continue until the tasks of the partnership are completed: namely, until the youngest child reaches the age of majority); Joan Williams, *Is Coverture Dead? Beyond a New Theory of Alimony*, 82 GEO. L.J. 2227, 2229, 2258 (1994) (advocating alimony payments until the youngest child leaves the home and an arbitrary number of years has passed).

184 *See* Antony W. Dnes, *The Division of Marital Assets Following Divorce*, 25 J.L. & SOC'Y, 336, 339–43 (1998) (discussing incentive effects of various rules of post-divorce property distribution).

185 Baker & Emery, *supra* note 3, at 443.

186 CHARLES FRIED, CONTRACT AS PROMISE 9–17 (1981).

policymaker does not know what proportion of the population suffers from a given bias. As discussed above, marital optimism is widespread and severe.[187] This optimism has costs. Divorce substantially reduces the standards of living of ex-wives and their children. These losses are not offset by the husband's corresponding gains.[188] Because optimism is widespread and costly, policymakers concerned with maximizing welfare have wide latitude to impose costs on the small minority of people that do not exhibit marital optimism. This lends even further support for shifting the default rule to increase post-divorce income sharing.

4. Alternate Proposals

The Calabresian framework also sheds light on other family law proposals. Jeffrey Stake has expressed doubt that any single default rule can accommodate the diversity of couples that seek to marry. He has therefore suggested mandatory prenuptial agreements.[189] Stake's concern with spousal diversity is well founded. Couples may have varying ideas about what marriage means, and what obligations it should entail. The growing number of prenuptial agreements, postnuptial agreements, and people who opt out of marriage entirely suggests that there is demand for some customization within marriage.[190] Merely providing the opportunity to people to write prenuptial agreements is not an effective way of allowing such customization because people are too optimistic to consider their need for one, and engaged couples are concerned that bringing up the idea of a postnuptial agreement will send a distrustful and damaging signal to their prospective spouse.[191] Mandatory prenuptial agreements at least partially overcome the problems of optimism and signaling concerns that prevent most couples from considering prenuptial agreements.

Mandating prenuptial agreements may partially debias couples. The extent of this debiasing, however, is difficult to estimate based on current research. When couples consider the terms of their own divorce, they are likely to view it as a more realistic possibility. If they readily agree on all terms, and therefore are not forced into serious or lengthy discussions, then this debiasing effect is likely to be negligible.

187 *See supra* notes 142–50 and accompanying text.

188 *See supra* notes 156–58 and accompanying text.

189 Stake, *supra* note 20, at 425–29.

190 *See* Rebecca Glass, *Trading Up: Postnuptial Agreements, Fairness, and a Principled New Suitor for California*, 92 CAL. L. REV. 215, 218 (2004) ("Both [prenuptial and postnuptial] agreements are increasingly popular means by which parties allocate assets during marriage and plan for property distribution at the time of death or divorce.").

191 *See* Mahar, *supra* note 130, at 16–18.

However, when couples must debate and compromise about the terms of their divorce, they are likely to experience greater debiasing.

This debiasing may have collateral costs. If mandating prenuptial agreements erodes marital optimism, then it may also weaken marriages. Stake acknowledges that mandating prenuptial agreements has drawbacks: "Just in the rare and fleeting moment of giddy, feet-off-the-ground, reckless abandon, the state steps in and bursts the balloon with a dose of practicality."[192] However, he only focuses on the immediate hedonic costs that stem from this rude intervention. He overlooks the potentially significant ripple effects that lower optimism may have on relationship satisfaction and duration.[193] The possibility of such ripple effects suggests that policymakers should first explore strategies that do not risk these collateral costs, such as extending post-divorce income sharing.

B. Employment Contracts

Most workers appear to have unrealistic expectations about their job security. Although these misperceptions are sticky, they are rooted in the self-serving bias rather than an above-average effect and so debiasing is probably possible. Other interventions, such as requiring employees to "knowingly and voluntarily" waive for-cause employment, could also debias workers, but these would probably create unnecessary litigation costs.

1. Evidence of Sticky Expectations

In the vast majority of states, at-will employment is the norm[194] and employees are only protected against being fired for a narrow class of reasons, such as their race, age, sex, or whistle-blowing activities.[195] However, most employees think that it would be illegal for their employer to fire them for a host of additional reasons. Pauline Kim studied the beliefs of people in New York, California, and Mis-

192 Stake, *supra* note 20, at 447.

193 *See supra* notes 169–73 and accompanying text.

194 Montana is the lone exception. *See* MONT. CODE ANN. § 39-2-904 (2007). There is a pending proposal to return to an at-will default rule. H.B. 513, 60th Leg., Res. Sess. (Mont. 2007); David H. Autor et al., *The Costs of Wrongful-Discharge Laws* 2 n.1 (Nat'l Bureau of Econ. Research, Working Paper No. W9425, 2002), *available at* http://www.nber.org/papers/W9425.pdf.

195 *See* Charles J. Muhl, *The Employment-at-Will Doctrine: Three Major Exceptions*, MONTHLY LAB. REV., Jan. 2001, at 3, 4. Title VII of the Civil Rights Act of 1964 prohibits employment discrimination on the basis of "race, color, religion, sex, or national origin." 42 U.S.C. § 2000e-2(a)(1) (2000).

souri who were filing for unemployment insurance.[196] They were asked whether an employee with no formal employment contract could be fired so that their employer could hire someone who would work for a lower wage.[197] The law in all three states is clear. In the absence of a contract the employee would be terminable at will.[198] A cost-saving termination would be legal under an at-will rule. It would also be legal under the stricter "for cause" standard.[199] The vast majority of Kim's subjects—over eighty percent—thought that it would be illegal for a company to fire an employee in order to hire someone that would work for a lower wage.[200]

These beliefs were sticky. Three-quarters of these people persisted in this error even after they were informed that the company handbook stated: the Company "reserves the right to discharge employees at any time, for any reason, with or without cause."[201] Presumably, these people believed that state or federal law prevented employers from entering into at-will contracts with their employees, rendering this disclaimer moot.[202] This degree of misunderstanding is particularly noteworthy because Kim's subjects—who were recently fired—presumably had a large incentive to learn about the law surrounding terminations both before and after they were terminated.

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196 Kim, *supra* note 2, at 449.

197 *Id.* at 459.

198 *See id.* at 471. In one case, the court even held that an express for-cause clause in a contract did not overcome Missouri's strong presumption in favor of at-will employment. *See* Main v. Skaggs Cmty. Hosp., 812 S.W.2d 185, 189 (Mo. Ct. App. 1991).

199 Even Montana's broad for-cause protections would not apply to the situation in Kim's study. In Montana, a termination is legal if it is based on "a reason that is neither false, whimsical, arbitrary or capricious, and it must have some logical relationship to the needs of the business." Buck v. Billings Mont. Chevrolet, Inc., 811 P.2d 537, 540 (Mont. 1991). The cost-saving termination in Kim's study almost certainly had "some logical connection to the needs of the business" and therefore would be legal.

200 Kim, *supra* note 2, at 463 n.55. Similar results were reported by Richard Freeman and Joel Rogers, who found that workers erroneously believe that employers cannot hire strike breakers, cannot force workers to perform dangerous jobs, and cannot fire workers arbitrarily. RICHARD B. FREEMAN & JOEL ROGERS, WHAT WORKERS WANT 118–22 (1999).

201 Kim, *supra* note 2, at 465.

202 *See* Robert F. Wayland et al., *Employment-at-Will Statements: Perceptions of Job Applicants*, 14 INT'L J. MANPOWER 22, 28 (1993) (finding that fifty-eight percent of students entering the work force thought that an explicit at-will waiver would not be enforceable even if signed by the employee).

The self-serving bias helps explain why workers might confuse aspirational norms of employer etiquette and law.[203] When these norms favor employees, and when employees don't specifically know the content of the law, they are likely to fill in their knowledge gaps in self-serving ways.

There are few opportunities for employees to correct these erroneous beliefs. If workers feel secure, they are more likely to invest in company-specific skills.[204] Therefore, when an employee is fired the employer has an incentive to make it look like it was for cause even if it was not, so as to prevent other employees from feeling insecure. Even when employers don't make deliberate attempts to mischaracterize an arbitrary termination, the self-serving bias predicts that employees will resist absorbing information that challenges their belief that they can only be fired for cause.[205] Kim's data support this prediction. Even subjects that had ample access to such information—union members, employees who had previously been responsible for hiring and firing other employees, and of course, employees who had been fired themselves—mispredicted the law.[206]

Kim's data suggest that many if not most employees systematically overestimate their legal rights. It seems reasonable to infer, based on this overestimate, that workers make either (or both) of two miscalcu-

203 For other potential contributing factors, see Estlund, *supra* note 26, at 14–15 (arguing that when employers adopt internal dispute resolution procedures, employees sensibly infer that their employer needs to have some defensible reason to terminate employees).

204 *See* Kim, *supra* note 2, at 482.

205 A long line of psychological research has confirmed this pattern, which is sometimes discussed under the label cognitive dissonance and sometimes discussed as a tendency to confirm one's prior schemas. *See, e.g.*, Wayne Eastman, *Overestimating Oneself and Overlooking the Law: Psychological Supports for Employment at Will*, 10 EMP. RESP. & RTS. J. 21, 30 (1997) (finding that MBA students who thought at-will employment was a bad policy were less likely to believe that it was the current default rule); Robinson, *supra* note 74, at 576 ("A long history of research on cognitive consistency and attitude change has found that people act in ways that preserve their established knowledge structures, perceptions, schemata, and memories."); Mark V. Roehling & Wendy R. Boswell, *"Good Cause Beliefs" in an "At-Will World"? A Focused Investigation of Psychological Versus Legal Contracts*, 16 EMP. RESP. & RTS. J. 211, 215 (2004) ("[T]he good cause norm contributes to a widely shared preemployment schema . . . that filters employer policies and shapes the employment experience to create a belief that employers are obligated to have a good reason to discharge an employee—formal policies not withstanding." (citation omitted)). Kim has also noted this psychological pattern and its potential effects on employee learning. Kim *supra* note 2, at 496 ("[O]nce formed, beliefs are likely to persist because individuals tend to notice evidence that confirms their beliefs, while overlooking contradictory information.").

206 *See* Kim, *supra* note 2, at 452.

lations, each of which could cause them to underinsure against the risks of job loss. First, workers might believe that their probability of being fired is lower than it actually is. Second, workers might believe that they have a legal remedy if they are fired, and therefore believe that they already have a form of arbitrary job loss insurance. However, there are data that cut against at least the first of these inferences from Kim's study.

Contrary to what one might expect based on Kim's data, workers appear to have a roughly accurate sense of their chances of being fired. Several national surveys ask workers to estimate their likelihood of being fired. Many of these surveys ask workers to use vague probability terms—"fairly likely," "very likely," etc.—to discuss their chances of being fired.[207] But it is not clear whether these terms can be sensibly translated into more specific probabilities so that they can be compared to actuarial job loss data.[208] To date, only one major survey has asked people to use percentages to estimate their probability of losing a job within the next year: the Survey of Economic Expectations (SEE).[209] This would allow for an easy comparison to actuarial job loss data. Unfortunately, the researchers did not follow up to assess the accuracy of job loss predictions.[210] They did, however, interview a new cohort of people one year later and asked them about their own job loss history.[211] As long as both samples were representative of the same underlying population, the aggregate predictions of the first sample can be compared with the aggregate outcomes in the second sample.[212] This analysis revealed that aggregate

207 The venerable General Social Survey asked several nationally representative samples of workers whether they were "very likely," "fairly likely," "not too likely," or "not likely at all" to be fired or laid off in the next twelve months. *See* Stefanie R. Schmidt, *Long-Run Trends in Workers' Beliefs About Their Own Job Security: Evidence from the General Social Survey*, 17 J. LAB. ECON. S127, S128–29 (1999). The Health and Retirement study uses similar probability terms. *See, e.g.*, INST. FOR SOC. RES., UNIV. OF MICHIGAN, 2000 HEALTH AND RETIREMENT STUDY § H, at 539, 543 (2002), *available at* http://hrsonline.isr.umich.edu/meta/2000/core/qnaire/online/15hr00h.pdf.

208 *See* Thomas S. Wallsten et al., *Measuring the Vague Meanings of Probability Terms*, 115 J. EXPERIMENTAL PSYCHOL.: GEN. 348, 360, 363 (1986) (finding that individuals vary widely in their interpretation of words that describe frequencies, and noting that the same words are interpreted differently in different contexts).

209 Charles F. Manski & John D. Straub, *Worker Perceptions of Job Insecurity in the Mid-1990s: Evidence from the Survey of Economic Expectations*, 35 J. HUM. RESOURCES 447, 449–50 (2000).

210 *See* Jeff Dominitz & Charles F. Manski, *Perceptions of Economic Insecurity: Evidence from the Survey of Economic Expectations*, 61 PUB. OPINION Q. 261, 281 (1997).

211 *Id.*

212 *See id.* at 281–82.

predictions were roughly accurate.[213] Overall, men predicted a fifteen percent job loss rate and experienced an eighteen percent job loss rate, while women predicted a twenty-one percent job loss rate and experienced an eighteen percent job loss rate.[214] Neither of these differences were statistically significant.

Similar evidence of aggregate rationality can be seen in the changes in worker perceptions of the probability of job loss. When unemployment is high, more workers perceive that they are at risk of being laid off.[215] Workers are also sensitive to the rate of lay-offs within their particular field and demographic.[216] This does not necessarily mean that workers are making accurate predictions. Consistent with this data, workers might still systematically underestimate their likelihood of being fired. However, combined with the SEE data, it appears that workers have roughly accurate perceptions about their chances of being fired, and that these perceptions respond in sensible ways to changes in the unemployment rate.

These data—and especially the SEE data—put significant pressure on the first plausible inference from Kim's study: that workers underestimate their likelihood of being fired. In order for the aggregate population of workers to be roughly accurate (consistent with the SEE data) and for many workers to underestimate their likelihood of being fired (consistent with Kim's data) there must be a small number of extraordinarily pessimistic workers. The pessimism of this minority, if severe enough, could counterbalance the optimism of the majority and yield an overall population whose mean predictions were roughly accurate. This could be the case. The main limitation of the SEE, like the limitation of many behavioral economic studies discussed earlier,[217] is that it may mask underlying heterogeneity. For example, this data is consistent with a population in which one eighth of people accurately predict their probability of being fired, while three-fourths are optimistic and another one eighth are severely pessimistic. However, the cleanest way to reconcile these competing data is to conclude that workers are roughly accurate in their projections of the probability of job loss, and to reject the first plausible inference based on Kim's data.[218]

213 *Id.* at 282.

214 *Id.*

215 Schmidt, *supra* note 207, at S130–31.

216 *See id.* at S136–39.

217 *See supra* Part II.A.1.

218 Even if many or most workers underestimated their probability of being fired, it is unclear whether any disclosure strategy could debias these beliefs. The probability of being fired, like the probability of getting a divorce, is likely to be sub-

Although there are reasons to question the first plausible inference from Kim's data, there are no countervailing reasons to question the second inference: that workers believe that they are entitled to a legal remedy if they are fired for a host of reasons.[219] Therefore, it seems reasonable to proceed under the relatively conservative conclusion that at least a substantial subset of employees inadequately insure against the possibility of job loss because of their erroneous belief that the law will provide them a safety net in the event that they are terminated arbitrarily. The remainder of this Part proceeds under this assumption.

2. Is Debiasing Possible?

Although sticky, employee misperceptions are probably correctable. In both marriage and employment, many people believe that a safety net exists to protect them if an unlikely negative event occurs—divorce and unemployment, respectively. Although people believe that some form of safety net exists in both cases, the sources of these beliefs are subtly different, and this has consequences for how sticky they are. In the divorce context, an accurate view of the law creates ambiguity in that some people receive alimony but others do not. The probabilistic nature of the law makes people susceptible to the above-average effect; spouses think that they will be protected even if most others are not. In contrast, an accurate view of the at-will doctrine leaves no doubt about whether most kinds of terminations are

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ject to a strong above-average effect. In one pertinent study, eighty-eight percent of students exhibited some above-average effect when predicting whether they would ever be fired from a job. *See* Weinstein, *supra* note 1, at 810 tbl.1 (reporting that optimistic responses outnumbered pessimistic reponses 7.56 to 1). On average, students felt that they were thirty percent less likely to be fired than their peers. *See id.* In a study of two engineering firms, approximately forty percent of engineers believed that they were in the top five percent of their respective companies. Todd R. Zenger, *Why Do Employers Only Reward Extreme Performance? Examining the Relationships Among Performance, Pay, and Turnover*, 37 ADMIN. SCI. Q. 198, 202 (1992). If these engineers believed that their likelihood of being fired was correlated with their performance, then they probably believed that they were significantly less likely than their co-workers to be fired. Workers who believe that they are less likely to be fired than their peers are less likely to respond to disclosures about their technical lack of job security. In short, correcting beliefs of at-will employees in this context would simply bring another bias to the forefront; one that is much less susceptible to debiasing efforts.

219 Of course, if workers do not believe that they have the right to a remedy for being terminated arbitrarily, or if they believe that they cannot obtain a remedy for some practical reason, then they would not believe that the law provides them with any form of safety net. These workers will not be lead to underinsure based on their beliefs about at-will employment, and therefore even if these beliefs are factually incorrect, they would not create costs. Debiasing would therefore be unnecessary.

legal. In short, the factual beliefs of at-will employees are currently verifiable in a way that the predictions of engaged couples are not.

A short, simple, and roughly accurate disclosure could probably debias a substantial number of workers.[220] In Kim's study, the one piece of available information—that the company "reserves the right to discharge employees at any time, for any reason, with or without cause"[221]—was ambiguous in that it did not explicitly say anything about the state of the law. To be sure, it strongly implied that at-will employment was legal. But seventy-five percent of people who initially thought that for cause employment was the default rule rejected this implication and concluded that the company—which was perhaps not a reliable source—was not accurately communicating the current state of the law.[222] This allowed the workers in Kim's study to fill the gaps in their knowledge with self-serving assumptions.

Government warnings are likely to be particularly effective debiasing mechanisms in the employment context. The perceived source of a warning is very important to its perceived reliability.[223] Not surprisingly, warnings are less effective when people think that they come from sources that have a stake in the outcome, or when they come from unknown sources.[224] In some instances, the government is particularly credible.[225] This is likely to be the case in the employment context. If there is one type of information the government should know, it is the current content of domestic law. Consequently, it is probable that workers are much less likely to ignore government disclosures that directly comment on the legality of at-will

220 Michael S. Wogalter et al., *On the Adequacy of Legal Documents: Factors That Influence Informed Consent*, 42 ERGONOMICS 593, 595, 604 (1999) (discussing existing studies and conducting research showing that short and simple consent forms communicate more information than longer, more detailed forms).

221 Kim, *supra* note 2, at 465.

222 *See id.* (reporting that three-quarters of respondents who believed the law forbade cost-saving discharges continued this belief despite the explicit disclosure).

223 Elizabeth J. Wilson & Daniel L. Sherrell, *Source Effects in Communication and Persuasion Research: A Meta-Analysis of Effect Size*, 21 J. ACAD. MARKETING SCI. 101 (1993) (finding source effects in meta-analysis of 114 studies).

224 Cox & Wogalter, *supra* note 28, at 119 (finding that people make commonsense credibility judgments when assessing sources such as the American Medical Association, the U.S. Surgeon General, and unlabeled warnings).

225 C. Samuel Craig & John M. McCann, *Assessing Communication Effects on Energy Conservation*, 5 J. CONSUMER RES. 82, 86 (1978) (finding that consumers reduced energy more when the request was attributed to a government agent rather than the electric company); Michael S. Wogalter et al., *Effect of Signal Word and Source Attribution on Judgments of Warning Credibility and Compliance Likelihood*, 24 INT'L J. INDUS. ERGONOMICS 185, 190–92 (1999) (finding that the mere addition of the words "Government Warning" increases the perceived credibility of nutrition and health labels).

employment than statements by a self-interested company that it reserves the right to fire employees for any reason.

Warnings are no panacea, but they need not be to be useful. No disclosure will be totally free from ambiguity, so no disclosure will completely eliminate the effects of the self-serving bias. Language barriers, inattention, anti-warnings, and information overload all reduce the effectiveness of static warning labels.[226] Yet even these simple warnings produce useful effects. In the largest meta-analysis to date, Eli Cox found that simple static warnings about the risk of physical injury increased compliance with safety precautions by eleven to twenty percent.[227] These studies involved the risk of being injured through the use of a wide variety of consumer products.[228] Individuals are likely to exhibit strong above-average effects when they think about their own chance of being injured by these products, in part because they are likely to have a false sense of control.[229] Therefore, warnings in the employment context might have better results. Even if a simple warning could only debias twenty percent of the United States' at-will employees,[230] it could greatly reduce the information asymmetry in a vast majority of employment contracts and reduce the likelihood that these workers will underinsure against the risks of job loss.

3. Collateral Costs of Debiasing

As with any debiasing strategy, there is a risk of introducing new biases into the population. Telling workers that they can be fired without recourse for any arbitrary reason is likely to have two effects. First, workers are likely to realize that employment law does not provide them with a safety net in the event of most job terminations. This is the main debiasing effect discussed above. Second, this type of disclosure is likely to make workers more pessimistic about the likelihood that they could be fired. If, as the SEE data suggests, workers are

226 *See generally* Latin, *supra* note 24, at 1206–55 (discussing the various reasons for the ineffectiveness of warning labels).

227 *See* Cox et al., *supra* note 24, at 199.

228 *Id.* at 197 tbl.1.

229 *See* Dunning et al., *supra* note 31, at 80.

230 *See* Jack Stieber, *Recent Developments in Employment-at-Will*, 36 LAB. L.J. 557, 558 (1985) (estimating that there are sixty million at-will employees in the United States); *see also* Richard J. Pratt, Comment, *Unilateral Modification of Employment Handbooks: Further Encroachments on the Employment-at-Will Doctrine*, 139 U. PA. L. REV. 197, 197 (1990) ("[E]ighty-five percent of the present American work force—approximately eighty-three million people—are employed under the at-will doctrine.").

roughly accurate in their current predictions, then making them more pessimistic will create a potentially costly bias.

There are two reasons to believe that inducing pessimism is less costly than declining to correct optimism in the employment context, and that therefore it may be worthwhile to trade the later error for the former. First and foremost, the market is better at correcting pessimism than it is at correcting optimism. Second, overinsuring (the main cost associated with pessimism) may be preferable to underinsuring, all else being equal.

As discussed above, employers do not have an incentive to correct the beliefs of optimistic workers.[231] Employers do, however, have an incentive to combat pessimism and make their workers feel secure in their jobs so that they are more willing to invest in job-specific skills.[232] The self-correcting nature of job-related pessimism provides policymakers with a cushion that reduces the ill effects of regulation that moves workers toward the pessimism side of the optimism-pessimism spectrum.

The costs of any remaining pessimism are likely to be much smaller than the corresponding collateral costs in the marriage context. There are plausibly similar stories that one could tell about optimism in both contexts. Recall that in romantic relationships, general optimism improved the quality and duration of relationships.[233] Relationship-specific optimism was likely to have an even stronger effect. Similarly, job-related optimism almost certainly affects job satisfaction, job performance, and the overall duration of an employment relationship.[234] Just as optimistic people perceive that their romantic partner is more supportive, optimistic employees are likely to see their employer as more supportive.[235] Employees that perceive their employer as faithful and supportive are more likely to feel secure, invest in job-specific skills, and perform better overall.[236] This suggests that the costs of pessimism might be high (and ironic): debiasing

231 *See supra* notes 203–06 and accompanying text.

232 Employers may also have an incentive to make false promises of job security. The disclosure strategy advocated here would not, therefore, cut against courts getting involved in enforcing oral promises.

233 *See supra* Part III.A.3.

234 *See, e.g.*, Thomas M. Begley et al., *The Relationships of Type A Behavior and Optimism with Job Performance and Blood Pressure*, 15 J. BUS. & PSYCHOL. 215, 223–25 (2000).

235 *See* Richard G. Best et al., *Core Self-Evaluations and Job Burnout: The Test of Alternative Models*, 10 J. OCCUPATIONAL HEALTH PSYCHOL. 441, 450–51 (2005) (finding a correlation between self-esteem, self-efficacy, and perceived employer support among health care workers).

236 *See* Kim, *supra* note 2, at 482.

workers may cause them to be fired more often. Nonetheless, any adverse effects of decreased optimism will be self-correcting.

Overly pessimistic workers will have the option to purchase job security. To the extent that workers (over)value job security, they can decide how much they are willing to pay for it, and attempt to buy it from their employer. Although few workers have the luxury to negotiate customized employment contracts, employers will have an incentive to sell job security rights in their standard contract. There are two main sources for these employer incentives. First, if employee performance decreases as a result of decreased job-related optimism—and there is evidence suggesting that it will[237]—employers will have an incentive to improve performance by reinvigorating employee optimism. Second, employers whose workers are somewhat mobile will have an incentive to sell job security in order to prevent workers from bargaining with their feet by joining a company that already provides it. It is not entirely clear how many companies currently offer for-cause protections. The best estimate available indicates that approximately fifteen percent of U.S. firms voluntarily offer for-cause protections.[238] If the demand for such protections grew, it is likely that more firms would offer them. This in turn would further increase employer incentives to offer job security by increasing the options available to employees.

If workers choose to purchase job security, then they can remain optimistic about the duration of their work relationship. This distinguishes the employment context from that of marriage. Our cultural norms accept explicit bargaining in employment relationships much more readily than in romantic relationships; the process of bargaining about the end of an employment relationship is unlikely to permanently scar optimism. Further, the legal constraints on marital contracts prevent them from fully repairing optimism. In many states, couples cannot contract into a fault regime—by, for example, waiving their right to seek a divorce absent adultery or other breach of the marital agreement.[239] Therefore, marital contracts have only a limited ability to prevent a divorce from occurring, and entering a marital contract cannot fully restore one's optimism that the relationship

237 *See supra* notes 232–36 and accompanying text.

238 J. Hoult Verkerke, *An Empirical Perspective on Indefinite Term Employment Contracts: Resolving the Just Cause Debate*, 1995 WIS. L. REV. 837, 867.

239 *See, e.g.*, Diosdado v. Diosdado, 118 Cal. Rptr. 2d 494, 496–97 (Cal. Ct. App. 2002) (refusing to enforce a prenuptial agreement providing for a $50,000 adultery penalty because "the agreement attempts to impose a penalty on one of the parties as a result of that party's 'fault' during the marriage, [and therefore] it is contrary to the public policy underlying the no-fault provisions for dissolution of marriage").

will endure. Employment contracts do not suffer from this limitation. Companies can commit to restrictions on the termination of the employment relationship. This provides a degree of security that is absent from marital contracts, and improves the likelihood that the contract can restore relationship-specific optimism. Even if workers cannot successfully bargain for job security, they can (over)insure against the risk of job-loss in other ways, such as investing in skills that are transferable rather than company-specific, or increasing their saving rate.

Because the costs of pessimism are limited by the price of purchasing job security, pessimism may be preferable to optimism. Put another way, overinsuring may be preferable to underinsuring.[240] While overinsuring saps money from workers that they could use for other goods, these costs are small for each individual. Underinsuring, by contrast, leads to small savings for most, but large losses for the few workers who are fired and who have not prepared for it. Even if these two outcomes were equivalent in terms of their aggregate costs, policymakers could sensibly prefer the system that tends to spread the costs of job losses over a larger number of workers.[241] As Alan Schwartz and Louis L. Wilde concluded in a similar context, "Consumers seemingly are worse off if they are without protection . . . than if they sometimes have too much protection."[242]

4. Alternate Proposals

An understanding of sticky expectations provides insights into other proposals for dealing with employee misperceptions. Cass Sunstein and Cynthia Estlund have recommended that policymakers adopt a "for cause" default rule instead of the existing at-will default.[243] This default should be "strong" in that waiving it would require a "knowing and voluntary" act.[244] The exact nature of this heightened standard is unclear. But both scholars note that the Age

240 *Cf.* Alan Schwartz & Louis L. Wilde, *Imperfect Information in Markets for Contract Terms: The Examples of Warranties and Security Interests*, 69 VA. L. REV. 1387, 1427–30 (1983) (analyzing the effects of optimism and pessimism on consumer demands for product warranties and concluding that markets are well suited to correct for pessimism but cannot adequately address optimism).

241 *Cf.* Jules Coleman, *The Costs of* The Costs of Accidents, 64 MD. L. REV. 337, 346, 352 (2005) (arguing that, at a minimum, the questions of reducing costs and distributing costs are separate, and ultimately concluding that the goal of reducing aggregate cost is secondary to issues of justice and distribution).

242 Schwartz & Wilde, *supra* note 240, at 1427–28.

243 Estlund, *supra* note 26, at 23–24; Sunstein, *supra* note 26, at 244–45.

244 Estlund, *supra* note 26, at 23–24; Sunstein, *supra* note 26, at 244.

Discrimination in Employment Act (ADEA) of 1967[245] might provide a useful starting point.[246] The ADEA allows employees to waive their protections from past age-related discrimination if their waiver is knowing and voluntary.[247] An agreement waiving ADEA protections is "knowing and voluntary" if it specifically refers to the rights created by the statute, advises the employee to seek the advice of counsel, and provides cooling-off periods.[248]

It is not clear what benefits the ADEA procedures would bring to at-will employees. Under these procedures, employers would be required to inform employees of the for-cause default rule, and to inform them when they are waiving its protections. This is a good start, but is missing a key piece of information. This requirement only ensures that workers understand the set of rights that they are waiving. But it is much more important for workers to understand what rights (if any) they are retaining. There are a range of protections that a company could provide that would fall somewhere between the rules of at-will employment and for-cause protections. Simply noting that an employment relationship is not governed by the for-cause standard creates ambiguity, which in turn invites the self-serving bias. Workers may waive for-cause protections and yet believe that they have some residual rights.

The other requirements under the ADEA do not appear to be aimed at information-forcing or debiasing. There is little reason to believe that people will become less prone to self-serving biases over the course of a cooling-off period, or that they will be motivated to seek out legal information during this time. It is also unclear whether a warning to seek counsel would help. If an explicit statement that the company "reserves the right to discharge employees at any time, for any reason, with or without cause" does not motivate most employees to question their preexisting beliefs about their legal protections,[249] then providing advice to seek an attorney is likely to do little or nothing. Overall, the ADEA standard is unlikely to facilitate the type of information transfer that is required to inform workers both of their rights, and of the effects of waiving these rights.

Using information-forcing default rules in this context suffers from all the weaknesses of these rules without capitalizing on their unique strength. Information-forcing default rules are particularly

245 Pub. L. No. 90-202, 81 Stat. 602 (codified as amended at 29 U.S.C.A. §§ 621–634 (West 1999 & Supp. 2008)).

246 Estlund, *supra* note 26, at 24; Sunstein, *supra* note 26, at 244.

247 29 U.S.C. § 626(f)(1) (2006).

248 *Id.*

249 Kim, *supra* note 2, at 465.

useful when one party to a transaction has private information—information that is unknown to the other party and to relevant regulatory bodies.[250] In these cases, penalty default rules are a powerful way to elicit that information.[251] In the context of at-will employment, information-forcing rules give the employer an incentive to inform the employee about the nature of her legal rights. But this is not private information. Policymakers already know the legal definition of at-will employment. They can skip the middle man and design the relevant disclosure themselves rather than requiring the employer to develop the content of a disclosure subject to judicial oversight. Such an administrative approach would have several benefits. It would minimize transaction costs by eliminating the need to litigate the effectiveness of many subtly different disclosure statements.[252] It would also provide a method for centralized public input about the content of the disclosure. If there were any question of a disclosure's effectiveness, an agency would always have the option of conducting independent studies. To be sure, charging an agency with this responsibility is not free from problems. Agency capture would be the most pressing concern.[253] A full exposition of these concerns is beyond the scope of this Article. However, an agency's ability to design and test warnings ex ante provides strong reason to suspect that, if policymakers chose to explore the benefits of warnings further, an administrative solution is best.

250 *Cf.* John C. Coffee, Jr., *The Mandatory/Enabling Balance in Corporate Law: An Essay on the Judicial Role*, 89 COLUM. L. REV. 1618, 1623 (1989) ("The rationale for . . . a 'coercive' default rule is that it forces those possessing private information to disclose it to the market . . . .").

251 *See* Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 95–100 (1989) (evaluating penalty default rules as "a way to encourage the production of information").

252 For an example of how unpredictable ex post enforcement waivers can be, see McDonald v. Mobil Coal Producing, Inc., 820 P.2d 986, 990–91 (Wyo. 1991) (holding that an express at-will disclaimer that followed the words "READ CAREFULLY BEFORE SIGNING" was not sufficiently clear because it was not set off by a border, in large print, or in the beginning of the handbook).

253 *See* Thomas W. Merrill, *Capture Theory and the Courts: 1967–1983*, 72 CHI.-KENT L. REV. 1039, 1050 (1997) (defining agency capture as the phenomenon where agencies "become 'captured' by the business organizations that they are charged with regulating").

C. *Credit Card Usage*

1. Evidence of Sticky Expectations

Credit cards are extraordinarily useful. Americans currently owe almost one trillion dollars in credit card debt.[254] Much but not all of this debt is benign. For those who do not keep a revolving balance, credit cards provide a fast, convenient, and free alternative to cash and checks. Consumers who do carry a balance still benefit from fast stigma-free loans. These loans help families cope with emergencies[255] and help entrepreneurs cope with the growing pains of start-up businesses.[256]

There are also potential downsides to credit card borrowing. Credit cards allow consumers to obtain the benefits of a purchase and delay its pains. This leads people to spend more when they make purchases with credit cards as opposed to cash.[257] Even the mere presence of a MasterCard logo induced subjects in one study to say that they would spend more for a given product.[258] Of course, spending more is not necessarily a bad thing. Consumer spending is a hallmark of a healthy and confident economy. But increased credit card spending often leads to increased credit card debt, which can carry several negative consequences.

Most people who accrue credit card debt are not happy about it.[259] In short, many people regret their choices to incur debt.[260] This

254 Federal Reserve Statistical Release: Consumer Credit (July 8, 2008), http://www.federalreserve.gov/RELEASES/g19/20080708 (revolving credit, non-seasonally adjusted).

255 Littwin, *supra* note 33, at 459.

256 MANN, *supra* note 34, at 41.

257 *See id.* 45–56; Richard A. Feinberg, *Credit Cards as Spending Facilitating Stimuli: A Conditioning Interpretation*, 13 J. CONSUMER RES. 348, 355 (1986) (reviewing nearly a dozen studies showing a correlation between using credit cards and spending more); Littwin, *supra* note 33, at 467 (conducting interviews with low-income women and finding that two-thirds of them reported that credit cards created temptation to spend more than they should).

258 *See* Feinberg, *supra* note 257, at 350, 352–54.

259 *See* George Loewenstein & Ted O'Donoghue, *"We Can Do This the Easy Way or the Hard Way": Negative Emotions, Self-Regulation, and the Law*, 73 U. CHI L. REV. 183, 197 (2005) (noting that people think that paying credit card debt is less pleasant than paying a parking ticket).

260 The women in Angela Littwin's study said it well: one woman said, "I charge, and I charged because I needed—you know, you go, 'Oh, I need clothing. Oh, I need a birthday present.' And I've been 'needing.' As you can see, I 'needed' too much." Littwin, *supra* note 33, at 469. Another explained, "When I originally took out that card, I didn't know how quickly the amount could skyrocket, till you owe them an arm and a leg." *Id.* at 480.

regret signifies that the initial choice to incur debt may not have been welfare enhancing, and may result in both monetary and emotional costs.

There are at least two plausible explanations for why consumers might accrue more debt than they intend to. First, they may accurately predict their future borrowing and payment patterns, but misunderstand how quickly their debt will grow. Second, people may mispredict their future borrowing and payment patterns due to an above-average effect.

These explanations lead to different policy prescriptions. Under the first story, overly optimistic expectations are not necessarily sticky. If they learn about how interest is calculated, or if they are provided with the results of these calculations, their predictions of the cost of borrowing should change. Under the second story, consumers have sticky expectations that may not be amenable to debiasing through disclosure. However, the cost of these sticky expectations is debatable. Unlike in the marriage and employment context, credit card consumers have many opportunities to learn from their mistakes. Every month they decide how much to borrow and get feedback about how much debt their borrowing produces. This constant feedback may itself debias consumers. Ultimately, policymakers should focus on reducing the costs of this learning process and on giving knowledgeable consumers the tools they need to manage their own use of credit. But there will assuredly be a group of consumers whom policymakers cannot debias in a cost-effective manner. Just as a cost-sensitive government might not attempt to prevent all accidents, it might not attempt to save every consumer from their overly optimistic borrowing.

The first story explaining why consumers may borrow more than they intend—that consumers may accurately predict their future borrowing and payment patterns, but misunderstand how quickly their owed interest will grow—does not immediately suggest the existence of sticky expectations. Like the errors in the employment context, these erroneous expectations are, at root, a mistake about a currently verifiable fact. Correcting this error has been the focus of most regulation to date. For example, the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) of 2005[261] amends the Truth in Lending Act[262] to require a host of disclosures that are aimed at pro-

261 Pub. L. No. 109-8, 119 Stat. 23 (codified as amended in scattered sections of 11, 12, 18, 28 U.S.C.).

262 Pub. L. No. 90-321, 82 Stat. 146 (1968) (codified as amended at 15 U.S.C. §§ 1601–1677 (2006)).

viding consumers with relevant information about the costs of borrowing.[263] In an effort to make information clear and comparable, it requires late fees and finance charges to be translated into an annual percentage rate terms.[264] In some cases it also requires a simple statement about minimum payments:

> Minimum Payment Warning: Making only the minimum payment will increase the interest you pay and the time it takes to repay your balance. For example, making only the typical 2% minimum monthly payment on a balance of $1,000 at an interest rate of 17% would take 88 months to repay the balance in full. For an estimate of the time it would take to repay your balance, making only minimum payments, call this toll-free number: _____.[265]

In a recent laboratory study, similar disclosures did not improve consumers' knowledge about interest rates, minimum payments, or other relevant concepts.[266] Nor did more detailed disclosures.[267] Further, these disclosures did not have any effect on subjects' subsequent decisions to make purchases with their credit cards. This suggests that most people either did not read, or did not understand, these warnings. This study was repeated with a group of consumers that had filed for bankruptcy—a group that Congress was particularly interested in helping when it designed these warnings.[268] The more detailed warnings had some effect on this group of debtors. Those debtor-consumers presented with the detailed warnings were less likely to use their credit cards.[269] But again, the warnings did not improve their knowledge of key concepts.[270] This raises the intriguing possibility that these warnings are doing no more than a "Caution" sign would. They are communicating that there is some degree of danger involved with credit cards, but they are not successful at communicating anything more specific that would allow consumers to choose between cards or make more nuanced decisions. This interpretation has further empirical support from the same study. After

263 15 U.S.C. § 1637(b) (2006).

264 *Id.* This warning is quite similar to one that California attempted to require in 2002. *See* CAL. CIV. CODE § 1748.13 (West Supp. 2008), *invalidated by* Am. Bankers Ass'n v. Lockyer, 239 F. Supp. 2d 1000 (E.D. Cal. 2002) (holding that the state statute unconstitutionally interfered with multiple federal laws).

265 15 U.S.C. § 1637(b)(11)(A) (2006).

266 *See* Richard Wiener et al., *Consumer Credit Card Use: The Roles of Creditor Disclosure and Anticipated Emotion*, 13 J. EXPERIMENTAL PSYCHOL.: APPLIED 32, 44 (2007).

267 *Id.*

268 *Id.* at 38.

269 *Id.*

270 *Id.*

being presented with the warnings, debtor-consumers become sensitive to the number of times that they used their card, but not to the total amount of money that they charged on it.[271] This suggests that consumers understand that using credit cards might be dangerous, but do not understand that this danger is a function of how much they charge. It may simply be too difficult to teach the math necessary to compute interest in a single disclosure. This suggests that objective factual errors, in addition to mispredictions about uncertain future events, can sometimes be sticky.

The second story—that people may mispredict their future borrowing and payment patterns—strongly suggests the existence of sticky expectations. Consumers may mispredict their future borrowing and payment patterns due to an above-average effect.[272] If the above-average effect is the primary cause of over-borrowing, then the problems of optimism in marriage and divorce are directly parallel to the problems of optimism in the credit card setting. In both cases people suffer adverse financial consequences because they underestimate the likelihood of a future event (divorce and future borrowing, respectively) and fail to take adequate precautionary measures (maintaining job skills and rejecting credit card solicitations, respectively).

It is likely that each story accurately describes as least a subset of the consumer population. Given the number of situations where people exhibit above-average effects and the prevalence of those above-average effects, it is likely that a substantial proportion of consumers exhibit unrealistic optimism in this context. This conclusion is bolstered by the link between perceived control and over-optimism.[273] Credit card consumers have substantial control over how often they use their credit cards and how much they repay each month. This nominal control fosters overconfidence and probably leads at least a subset of credit card consumers to accrue more debt than they originally intended.

The costs that stem from sticky expectations in the credit card context depend in large part on whether and when consumers learn

271 *Id.* at 38–39.

272 For additional costs of over-optimism in this context, see Sha Yang et al., *Unrealistic Optimism in Consumer Credit Card Adoption*, 28 J. ECON. PSYCHOL. 170, 178–79 (2007) (analyzing two measures of optimism and finding that, under each measure, overly optimistic people are less likely to consider interest rates when they obtain a credit card).

273 *See supra* notes 30–31 and accompanying text.

from their mistakes.[274] At one extreme is a consumer who makes a relatively small mistake and thereafter uses credit cards in a more measured way, comparing the costs of her various sources of credit before borrowing. At the other is a consumer who makes a series of mistakes or one large mistake and ends up in bankruptcy. These consumers impose costs not only on themselves, but also all of their potential creditors and the legal system.

Even if all consumers learn, there is still a potential place for regulation. Learning is sometimes a costly process. In one in-depth study of credit usage in a public housing project, only seven out of fifty low-income women were aware of the temptation that credit cards might create before they obtained one.[275] The remainder learned the hard way. Many borrowed more than they intended to, and only then, after getting in over their heads, realized how easily they could slip into debt.[276] Depending on the amount of debt they accrue, consumers may pay a high price to learn their lesson. A state concerned with aggregate welfare has an interest in reducing the costs of these lessons, at least if it can do so without substantially reducing the lesson's effectiveness.[277]

Even those consumers who learn about the dangers of easy credit before they experience it themselves may incur and impose costs. Currently, credit cards are not designed to help consumers limit their

274 For further comments about the dangers of assuming static models of human behavior that do not account for the possibility of learning, see Mitchell, *supra* note 121, at 165.

275 *See* Littwin, *supra* note 33, at 469–70.

276 *See id.*

277 Jonathan Klick and Gregory Mitchell have recently argued that any government intervention that reduces the cost of an error will also substantially reduce individual incentives to learn. Jonathan Klick & Gregory Mitchell, *Government Regulation of Irrationality: Moral and Cognitive Hazards*, 90 MINN. L. REV. 1620, 1633 (2006). This assumes a linear or near-linear relationship between incentives and motivation: the greater the incentive, the more motivated an individual will be to make the proper choice. Experimental economics has shown, however, that there is not a linear relationship between potential losses and cognitive effort; small incentives and large incentives often produce similar results. *See* Mitchell, *supra* note 121, at 114–16. There are also intuitive reasons to believe that one's cognitive efforts may max out at some point, making further increases in the costs of an error irrelevant to cognitive effort. This intuition is borne out in the field. Insurance companies create incentives for drivers to be careful by charging a deductible, even though this deductible can be quite small compared to the cost of an accident. Similarly, our entire educational system is built on the assumption that small incentives (grades) can be sufficiently motivating. This suggests that the government could substantially reduce the costs of error without appreciably affecting the likelihood that individuals will learn from their mistakes.

borrowing.[278] Therefore, even if a consumer is aware of her tendency to overborrow, she might be able to do very little about it. To be sure, these consumers could throw away all of their credit cards and only use debit cards. But this may not be a realistic solution when people need access to some easy credit, and merely want to limit the amount of credit that they have access to.[279]

The largest single indicator that people are accruing more debt than they intend, and that this debt creates costs, is the link between credit card debt and bankruptcy. It is widely acknowledged that there is a correlation between credit card debt and bankruptcy.[280] The exact contours of that correlation are a bit less clear, but the best data suggest that increases in credit card debt lead to increased bankruptcies one to three years later.[281] "Even if credit card spending and consumer debt are held constant, an increase in credit card debt—a shift of consumer borrowing from noncard borrowing to card borrowing—is associated with an increase in bankruptcy filings."[282] This suggests that there is something about credit card debt that makes it more prone to lead to bankruptcy than other forms of consumer debt. That extra "something" might well be the tendency of consumers to spend more than they intend when using credit cards, and to thereby accrue more debt than they intend. This tendency, once combined with consumers' poor understanding of interest charges[283] and the rights of

278 *See* Littwin, *supra* note 33, at 478.

279 Angela Littwin has recently proposed a series of "self-directed" credit card reforms aimed at allowing people to pre-commit to spending limits, opt-out of credit card solicitations, and design cards that reduce their tendency to overborrow. *See id.* at 478–96. These reforms are aimed at a group of consumers that Littwin deems "sophisticated" because they are aware that they may borrow more than they intend. *Id.* at 467. This Article focuses on the second major group of consumers that Littwin identifies—"naïve" consumers who do not think that they will overborrow and later regret their initial choices—and explores how policymakers might help naïve consumers become more sophisticated.

280 *See, e.g.*, TERESA A. SULLIVAN ET AL., THE FRAGILE MIDDLE CLASS 72 (2000); Susan Block-Lieb & Edward J. Janger, *The Myth of the Rational Borrower: Rationality, Behavioralism, and the Misguided "Reform" of Bankruptcy Law*, 84 TEX. L. REV. 1481, 1521–24 (2006); Todd J. Zywicki, *An Economic Analysis of the Consumer Bankruptcy Crisis*, 99 NW. U. L. REV. 1463, 1496 (2005); Ronald J. Mann, *Credit Cards, Consumer Credit & Bankruptcy* 30 (Univ. of Texas Sch. of Law Working Paper Series, Working Paper No. 44, 2006), *available at* http://ssrn.com/abstract=690701.

281 *See* Mann, *supra* note 280, at 27 tbl.9 (repeating an analysis done in MANN, *supra* note 34, at 71, to account for and correct a weakness in his statistical methodology, and largely finding that his original results remained unchanged).

282 *Id.* at 30.

283 Wiener et al., *supra* note 266, at 33.

credit card companies to retroactively increase rates,[284] helps explain why credit card debt is more likely to lead to bankruptcy than other forms of debt.[285]

2. Is Debiasing Possible?

The costs of credit card debt, while potentially severe, do not affect the vast majority of credit card consumers. Most individuals do not make costly mistakes when using credit cards. Only half of credit card users carry any balance on their credit cards.[286] Among them, few get into deep trouble. Half of all households with credit card debt would only need to dedicate four percent of their annual income for one year to pay off that debt.[287] Only about one percent of households would have to dedicate eighty percent or more of their annual income in order to pay off their credit card debt.[288]

Because the highest costs associated with credit card debt are concentrated in a small (at least relatively speaking) subpopulation, policymakers must be careful when responding to these costs. Banning certain credit card terms,[289] or banning credit cards outright,[290]

284 Littwin, *supra* note 33, at 58 (quoting low-income women who did not know that their interest rates could go up because of universal default rules); Ronald J. Mann, "*Contracting" for Credit*, 104 MICH. L. REV. 899, 923 (2006) (describing "universal default provisions" under which credit card companies can raise interest rates on existing debt in response to late payments on *other* credit cards).

285 For a discussion of why credit card debt causes bankruptcies, as opposed to the opposite causal direction—the availability of a future bankruptcy discharge causing increased credit card spending—see Mann, *supra* note 280, at 31–32 (confronting several arguments by Todd Zywicki and arguing that it is doubtful that debtors can predict bankruptcy three years in advance in order to start borrowing strategically); *see also* TERESA SULLIVAN ET AL., AS WE FORGIVE OUR DEBTORS 240–42 (2d ed. 1999) (reporting that the variation in filing rates within states is greater than the variation between states even though some states provide much higher incentives to opportunistically borrow and then file for bankruptcy by protecting substantially more property from creditors); Block-Leib & Janger, *supra* note 280, at 1525 (arguing that opportunistic borrowers would be very costly to credit card companies, and yet there is little evidence that the increase in bankruptcies has had much effect on the cost to credit card companies of extending credit); Joshua D. Wright, *Behavioral Law and Economics, Paternalism, and Consumer Contracts: An Empirical Perspective*, 2 N.Y.U. J.L. & LIBERTY 470, 492 (2007) ("The results also pose a challenge to the hypothesis that [consumers] ramp up borrowing in anticipation of filing because the surge in bankruptcies comes a year after aggregate credit card debt increases.").

286 Wiener et al., *supra* note 266, at 32.

287 DAVID S. EVANS & RICHARD SCHMALENSEE, PAYING WITH PLASTIC 103 (2d ed. 2005).

288 *Id.*

289 Mann, *supra* note 284, at 922–23.

290 Loewenstein & O'Donoghue, *supra* note 259, at 197–98.

will affect a large number of people who benefit from being able to take on credit card debt. Debiasing strategies may offer the best hope of reducing the costs of credit card debt without interfering with the majority of people who appear to use credit cards with a reasonable amount of responsibility.

In *Seduction by Plastic*, Oren Bar-Gill sketched out one potential debiasing strategy for consumer over-optimism in the credit card context. He suggested providing customers with a customized prediction of how much they will borrow in the future.[291] These data should not be too costly to produce, because credit card companies already have similar algorithms that help them to set rates and target certain populations.[292]

Existing research casts some doubt on the efficacy of this proposal. Recall that, in the health context, providing individual customized risk information does not necessarily reduce optimism for any length of time.[293] But there are some intuitive reasons to think that disclosures would be more effective in the credit card context. In both of the health-related studies, subjects received a single risk assessment. After two to six months, such interventions had inconsistent effects.

It is plausible that interventions could achieve more consistent results if they were repeated—and the credit card context facilitates repetition. If every monthly credit card statement contained an estimate of how much each borrower is projected to borrow (or how much each "above-average" cardholder is projected to borrow),[294] and also included feedback showing that a consumer's actual borrowing and repayment patterns were similar to the "average borrower," consumers might learn to incorporate actuarial risk information sooner. This would allow consumers to incur smaller costs between the time when they begin to borrow and the time when they learn to accurately calculate the costs of borrowing. But these are educated guesses only. There is no direct data about whether or to what extent the frequency of a warning influences how much they internalize it. This is a fertile

291 *See* Bar-Gill, *supra* note 30, at 1418–20. This is similar to a suggestion by Alan Schwartz and Larry Wilde that consumers should receive information about how many consumers end up defaulting on their credit card debt, along with an admonition that consumers should not think that they will be better than average at avoiding default. Schwartz & Wilde, *supra* note 240, at 1436.

292 *See, e.g.*, Timothy C. Lambert, *Fair Marketing: Challenging Pre-Application Lending Practices*, 87 GEO. L.J. 2181, 2189–93 (1999).

293 *See supra* notes 93–99 and accompanying text.

294 *See supra* note 291 and accompanying text.

area for future research that would contribute to the credit card debate as well as informing various public health campaigns.

3. Collateral Costs of Debiasing

Assuming that debiasing is possible through customized and repeated information disclosures, it is unlikely to create negative collateral costs. Unlike in the marriage context, unrealistic optimism does not create positive effects. Unrealistically optimistic people borrow more than they otherwise would. Although this allows them to enjoy short-term gains, these gains normally come at a large cost. Individuals end up paying back far more than they borrow[295] and regretting their earlier borrowing decisions.[296] Eliminating unrealistic optimism is therefore likely to save money and regret.

As with any debiasing strategy, there is a risk of introducing new biases into the target population. Although unrealistic optimism is likely to harm borrowers, unrealistic pessimism is likely to harm them as well. Most low-income people obtain credit cards for emergencies.[297] Credit cards provide access to a fast and easy loan in such circumstances, which may be well worth its costs. Therefore, there is a positive optimal level of borrowing. This makes some debiasing methods especially inappropriate. For example, using the availability heuristic (for instance by providing a vivid account enumerating all of the ways a particular individual was harmed by high debt) to create an equal and opposite bias that dissuaded people from borrowing on their credit cards would be extremely difficult. It is likely that some people would remain overly optimistic, while others would become overly pessimistic about the dangers of credit card debt.

Simple disclosure strategies are unlikely to create this type of unrealistic pessimism, provided that they disclose accurate information. If the actuarial warnings that Bar-Gill envisions are fairly accurate, then credit card consumers will gain a more accurate sense of the costs of borrowing. Similarly, informing consumers that they will probably pay two hundred dollars in interest if they borrow five hundred dollars allows them to more accurately judge whether a current emergency calls for credit card borrowing, or whether another borrowing method might be preferable. Even if someone cannot borrow from relatives, she might rationally prefer other forms of borrowing—

295 For example, with an annual percentage rate (APR) of eighteen percent, and a minimum payment of $20, a consumer would pay off a $500 debt in fifty-nine months, and pay a total of $215.68 in interest.

296 *See* Loewenstein & O'Donoghue, *supra* note 259, at 197.

297 *See* Littwin, *supra* note 33, at 459.

pawn shops, rent-to-own stores, or financed purchasing options that are offered by some catalog retailers—to credit cards.[298]

4. Alternative Proposals

What if debiasing is not possible? If consumers systematically underestimate their borrowing and overestimate their ability to repay, and debiasing is not a realistic option, policymakers should explore insulation strategies that decrease the costs of these erroneous expectations. Any insulation strategies, however, will have to confront the fact that most people are not harmed by credit card debt, and the costs of credit card debt are disproportionately borne by a small subset of the population. Policymakers could take one of two approaches to dealing with this issue. First, policymakers could attempt to identify the subpopulation that is at risk of accruing high credit card debt, and target an intervention only at those people. This will prove difficult. Some observable traits correlate with credit card debt, such as age, education, and income.[299] However, academic researchers have not yet been able to create accurate predictions of who will end up in bankruptcy, let alone the more subtle inquiry into who will end up accruing substantially more debt than they intend to.[300]

Second, if policymakers cannot identify at-risk consumers ex ante, or if they cannot create interventions that target only this subpopulation, then they should consider asymmetrically paternalistic interventions, that is, those that impose little or no burden on most credit card consumers. A full discussion of these insulation strategies is outside the scope of this Article. I offer just a few preliminary comments.

Legal scholars have proposed insulation strategies that range from banning credit cards outright[301] to merely restricting a subset of

298 *See id.* at 490 (reporting that low-income women rated pawn shops and financed purchasing plans as better sources of borrowing than credit cards because with credit cards it was too easy to accrue unmanageable debt).

299 Tom Brown & Lacey Plache, *Paying with Plastic, Maybe Not So Crazy*, 73 U. CHI. L. REV. 63, 80 (2006) ("[R]evolvers [consumers who do not pay their credit card balance in full each month] were younger and had lower income, less education, and larger households than nonrevolvers. Revolvers more frequently did not own their homes and were not married compared to nonrevolvers.").

300 F. H. Buckley & Margaret F. Brinig, *The Bankruptcy Puzzle*, 27 J. LEGAL STUD. 187, 196, 206 (1998) (creating a model to predict bankruptcies and ultimately concluding that bankruptcy rates are most affected by local social norms). Of course, the proprietary algorithms of credit card companies may be more successful in predicting bankruptcies, but academics and government regulators do not have access to these data.

301 Loewenstein & O'Donoghue, *supra* note 259, at 200.

credit card advertising.[302] A middle option would be to standardize credit card contract terms in order to facilitate market competition.[303] This could be done, as it is in the mortgage and landlord-tenant markets, by direct government regulation of the terms of the contract.[304] But policymakers face a difficult task here. They must be able to identify those terms that few people benefit from, and that simultaneously create costs for others.

Ultimately, there may be only a narrow range of insulation strategies that are cost justified, and policymakers may have to make do with regulations that only partially alleviate the costs of unanticipated credit card debt. Thus, the credit card context may illustrate the third broad approach that policymakers might take when faced with sticky expectations: inaction.[305] It may not always be worth closing the gap between expectations and reality, at least not completely.

CONCLUSION

Irrational optimism is often resistant to change. Legal scholars and policymakers should acknowledge this stickiness, because it has important implications for the costs and benefits of reform proposals in a wide variety of areas, including family law, employment law, and credit card regulation. A Calabresian framework can help us to assess those costs and benefits sensibly. It can help us decide whether it is worth implementing legal reform to close the gap between expectations and reality, and if so, whether to do so by attempting to unstick the expectations or by insulating against the costs of irrational optimism in other ways. The main pattern that emerges is that debiasing is unlikely to correct above-average effects and errors that people make when they are predicting their likelihood of suffering some future negative event. But debiasing is likely to be useful when people are exhibiting self-serving biases and making errors about the content of the law or some other currently verifiable fact.

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302 For example, Bar-Gill proposes a ban on unsolicited offers that contain low introductory rates or other forms of dual pricing. Bar-Gill, *supra* note 30, at 1421. This would be an example of asymmetric paternalism because consumers who need short-term low rates, and are willing to pay for them with higher future rates, could solicit such offers from the credit card companies. People who underestimate the importance of long-term rates will be insulated from the effects of the misjudgments.

303 *See* Mann, *supra* note 284, at 899 (advocating banning retroactive price adjustments because such terms are "unpriceable" by the consumer at the time she enters the credit card contract); Schwartz & Wilde, *supra* note 240, at 1460 (advocating standardized terms to help facilitate comparison shopping).

304 Mann, *supra* note 284, at 927–28.

305 *See supra* notes 85–86 and accompanying text.

In the context of marriage, where expectations are likely to be highly sticky and debiasing is likely to carry high collateral costs, policymakers should consider insulation strategies. One promising insulation strategy would be to change the law of alimony to reflect spouses' expectations of long-term shared economic ties. In the employment context, expectations are likely to be significantly less sticky. Here, relatively simple debiasing techniques could work, obviating the need to impose penalty-default rules. In the context of credit cards, the framework that this Article develops highlights the potential drawbacks of sweeping credit card regulation, and counsels for a humble approach where policymakers alleviate those costs that they can, and acknowledge that they may not be able to provide a complete solution. For these and many other areas where sticky expectations are likely to exist,[306] the Calabresian framework provides a useful starting point to assess both debiasing and insulating strategies.

306 For example, even equity partners in law firms have sticky expectations about their partnership rights, which may alter the way that courts should interpret them. *See* David B. Wilkins, *Partner Shmartner!* EEOC v. Sidley Austin Brown & Wood, 120 HARV. L. REV. 1264, 1264–66, 1268 (2007).