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## ARTICLE

### DECIDING BY DEFAULT

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*Impersonal default rules, chosen by private or public institutions, establish settings and starting points for countless goods and activities—cell phones, rental car agreements, computers, savings plans, health insurance, websites, privacy, and*

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<sup>†</sup> Robert Walmsley University Professor, Harvard University. Earlier versions of this Article were delivered at the University of Pennsylvania Law School, Cambridge University, and the British Academy, where it was presented as the Maccabean Lecture in Jurisprudence. For a host of suggestions, which significantly improved the manuscript, I am grateful to superb audiences at those lectures and to workshop participants at the University of California at Los Angeles, the University of Chicago Law School, and the J.F. Kennedy School of Government. Thanks as well to Elizabeth Emens, Craig Fox, Eric Johnson, Russell Korobkin, Jane Mansbridge, Eric Posner, Larry Summers, David Tannenbaum, and Richard Thaler for helpful comments on a previous draft. Daniel Kanter provided excellent comments and valuable research assistance.

*much more. Some of these rules do a great deal of good, but others might be poorly chosen, perhaps because the choice architects who select them are insufficiently informed, perhaps because they are self-interested, perhaps because one size does not fit all. The existence of heterogeneity argues against impersonal default rules. The obvious alternative to impersonal default rules, of particular interest when individual situations are diverse, is active choosing, by which people are asked or required to make decisions on their own. The choice between impersonal default rules and active choosing depends largely on the costs of decisions and the costs of errors. If active choosing were required in all contexts, people would quickly be overwhelmed; default rules save a great deal of time, making it possible to make other choices and in that sense promoting autonomy. Especially in complex and unfamiliar areas, impersonal default rules have significant advantages. But where people prefer to choose, and where learning is both feasible and important, active choosing may be best, especially if people's situations are relevantly dissimilar. At the same time, it is increasingly possible for private and public institutions to produce highly personalized default rules, which reduce the problems with one-size-fits-all defaults. In principle, personalized default rules could be designed for every individual in the relevant population. Collection of the information that would allow accurate personalization might be burdensome and expensive, and might also raise serious questions about privacy. But at least when choice architects can be trusted, personalized default rules offer most (not all) of the advantages of active choosing without the disadvantages.*

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## INTRODUCTION

Consider the following:

1. Some people have been interested in increasing consumers' use of "green energy"—energy sources that do not significantly contribute to air pollution, climate change, and other environmental problems. While such energy sources are available in many places, relatively few people

choose them (notwithstanding the fact that in response to questions, many say that they would do so<sup>1</sup>). Nonetheless, two communities in Germany do show strikingly high levels of green energy use—well over 90%.<sup>2</sup> This is a dramatic contrast to the level of participation in green energy programs in other German towns, which was in a recent time period around 1%.<sup>3</sup> The reason for the difference is that in those two communities, people are automatically enrolled in green energy programs, and they have to opt out.<sup>4</sup>

2. In Germany, about 12% of people consent to be organ donors, whereas in Austria, the rate is 99.98%.<sup>5</sup> We might speculate that this significant difference stems from different cultures, different norms, or extraordinarily effective educational campaigns in Austria. The speculation would be wrong. Instead, the difference results from law and more particularly from the default rule.<sup>6</sup> In Austria, consent is presumed, subject to opt out.<sup>7</sup> In Germany, consent is not presumed, and people have to opt in.<sup>8</sup>
3. In the United States, savings rates have often been quite low, in part because people have delayed enrollment in pension plans.<sup>9</sup> A number of employers have produced significant increases in savings through one simple initiative: make enrollment automatic, subject to opt out. The

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<sup>1</sup> Daniel Pichert & Konstantinos V. Katsikopoulos, *Green Defaults: Information Presentation and Pro-environmental Behaviour*, 28 J. ENVTL. PSYCHOL. 63, 64 (2008). This difference is something of a mystery. It might be a product of the fact that it is not easy to find and select green energy, or it might be a product of the default rule. Alternatively, the survey setting may produce somewhat artificial answers, in which people simply say “yes” but do not really mean it, especially if green energy is costly.

<sup>2</sup> *Id.* at 66.

<sup>3</sup> *Id.* at 64.

<sup>4</sup> *Id.*; see also Cass R. Sunstein & Lucia A. Reisch, *Automatically Green: Behavioral Economics and Environmental Protection*, HARV. ENVTL. L. REV. (forthcoming 2013), available at <http://papers.ssrn.com/id=2245657> (discussing green defaults in Germany).

<sup>5</sup> Eric J. Johnson & Daniel Goldstein, *Do Defaults Save Lives?*, 302 SCIENCE 1338, 1338 (2003) (bottom figure).

<sup>6</sup> DUNCAN J. WATTS, EVERYTHING IS OBVIOUS: ONCE YOU KNOW THE ANSWER 30-31 (2011); see also Eric J. Johnson & Daniel G. Goldstein, *Decisions by Default* (discussing various European opt-in organ donor programs), in THE BEHAVIORAL FOUNDATIONS OF POLICY 417, 417-18 (Eldar Shafir ed., 2013).

<sup>7</sup> Johnson & Goldstein, *supra* note 5, at 1338.

<sup>8</sup> *Id.*

<sup>9</sup> See, e.g., Steven Greenhouse, *In and Out, Off and On*, N.Y. TIMES, Mar. 13, 2013, at F1 (noting that only twenty-six percent of all U.S. workers were enrolled in traditional pension plans).

result of this initiative has been to increase participation rates dramatically.<sup>10</sup> For retirement savings, automatic enrollment appears to have a far larger effect than even substantial tax incentives—a truly remarkable finding.<sup>11</sup>

Those who devise default rules are *choice architects*, in the sense that they design the social background against which choices are made.<sup>12</sup> It is not possible to dispense with a social background, and some kind of choice architecture is therefore inevitable. Moreover, default rules, even or perhaps especially if they appear to be invisible, count as prime “nudges,” understood as interventions that maintain freedom of choice, that do not impose mandates or bans, but that nonetheless incline people’s choices in a particular direction.<sup>13</sup> A GPS is a simple example of a nudge; a disclosure requirement falls in the same category.<sup>14</sup> Default rules are canonical nudges.

When private or public institutions establish a default rule, they do not force anyone to do anything. On the contrary, they maintain freedom of choice.<sup>15</sup> Whether people must opt out or opt in, they are permitted to do so as they see fit.<sup>16</sup> What is striking and somewhat (though decreasingly) mysterious is that default rules nonetheless have a large impact, because they tend to stick.<sup>17</sup> If a private or public institution seeks to alter outcomes,

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<sup>10</sup> See, e.g., SHLOMO BENARTZI, *SAVE MORE TOMORROW* 42-45 (2012) (highlighting the impact of employer-implemented “Auto-Takeoff” programs on employee participation in retirement plans).

<sup>11</sup> Raj Chetty et al., *Active vs. Passive Decisions and Crowdout in Retirement Savings Accounts: Evidence from Denmark* 38 (Nat’l Bureau of Econ. Research, Working Paper No. 18565, 2012), available at <http://www.nber.org/papers/w18565>; see also Shlomo Benartzi & Richard H. Thaler, *Behavioral Economics and the Retirement Savings Crisis*, 339 *SCIENCE* 1152, 1152 (2013) (offering a valuable discussion of retirement savings rates and the effect of auto-enrollment).

<sup>12</sup> RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE* 3 (2008).

<sup>13</sup> *Id.* at 6; see also Stefano DellaVigna & Ulrike Malmendier, *Paying Not to Go to the Gym*, 96 *AM. ECON. REV.* 694, 716 (2006) (offering an illuminating example of how nudges and default rules can be used in the domain of exercise).

<sup>14</sup> See Cass R. Sunstein, *The Storrs Lectures: Behavioral Economics and Paternalism*, 122 *YALE L.J.* 1826, 1855, 1866 (2013) (detailing how GPS systems and disclosure requirements act as nudges by informing people’s choices).

<sup>15</sup> The assumption here is that opting in and opting out are both easy and essentially costless. Freedom of choice is limited insofar as there are costs in switching from the default rule. *Id.* at 1881-82.

<sup>16</sup> *But see* RICCARDO REBONATO, *TAKING LIBERTIES* 83-86 (2012) (arguing that some choice-preserving measures lack easy reversibility and resemble forms of hard paternalism); see also Sunstein, *supra* note 14, at 1893-94 (noting that soft paternalistic measures like graphic warnings may become psychologically ingrained and hard to reverse).

<sup>17</sup> See Eric J. Johnson & Daniel G. Goldstein, *Defaults and Donation Decisions*, 78 *TRANSPANTATION* 1713, 1714 (2004) (“[D]ecision makers might believe that defaults are suggestions by the policy maker, implying a recommended action.”).

switching the default rule may be a highly effective route—perhaps more effective than significant economic incentives (as in the case of retirement savings).<sup>18</sup> Such incentives certainly matter, but sometimes people ignore them, especially if they have other things to which to attend.<sup>19</sup> People sometimes ignore default rules too, but that can be an opportunity, not a problem.<sup>20</sup> Default rules stick when and because people ignore them.

It follows that with respect to health care, consumer protection, the availability of organs, energy use, environmental protection, mortgages, savings, and much more, the choice of the default rule is exceedingly important. Public-spirited or self-interested people in both the private and public spheres can and do use default rules to produce outcomes that they deem desirable.<sup>21</sup>

One of the most important tasks of a legal system is to establish default rules. Indeed, many policies operate through default rules, and contract law consists in large part of such rules.<sup>22</sup> What happens if the parties are silent on whether employees may be fired only “for cause,” or instead for whatever reason the employer deems fit? A default rule might specify the answer, and it might well stick.<sup>23</sup> In the law of contract, people often do not contract around default rules even if it is relatively costless for them to do so. Of course, some legal rules are mandatory; they do not merely set the default.<sup>24</sup> Employees are not allowed to opt out of the prohibition on racial discrimination

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<sup>18</sup> The greater success of default rules in altering outcomes can be seen in the context of retirement savings. Benartzi & Thaler, *supra* note 11, at 1152.

<sup>19</sup> Cf. Andrew Caplin & Daniel J. Martin, *Defaults and Attention: The Drop Out Effect* 16-19 (Nat'l Bureau of Econ. Research, Working Paper No. 17988, 2012), available at <http://www.nber.org/papers/w17988> (positing that informative defaults lead individuals to “drop out” and pay less attention to the choices they make).

<sup>20</sup> *Id.* at 2-3 (contrasting the opportunities provided by default rules with those provided by active choice).

<sup>21</sup> See, e.g., Liz Gannes, *Pinterest Now Tracks Everybody by Default, but You Can Opt Out*, ALL THINGS D (July 26, 2013), <http://allthingsd.com/20130726/pinterest-now-tracks-everybody-by-default-but-you-can-opt-out> (highlighting a social media site's recently implemented tracking system that allows the site to track the preferences of both site users and nonusers to create a more user-friendly experience).

<sup>22</sup> See Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 87-88 (1989) (noting the pervasiveness of default rules like the warranty of merchantability and straight voting under corporate statutes).

<sup>23</sup> See Russell Korobkin, *The Status Quo Bias and Contract Default Rules*, 83 CORNELL L. REV. 608, 625-30 (1998) (discussing how preexisting defaults alter personal preferences); see also Samuel Issacharoff, *Contracting for Employment: The Limited Return of the Common Law*, 74 TEX. L. REV. 1783, 1789-90 (1996) (discussing how the common law intervened when parties failed to specify the bases for which an employer could terminate the employer-employee relationship).

<sup>24</sup> In contrast to default rules, these rules have been termed “immutable rules” that cannot be changed contractually. Ayres & Gertner, *supra* note 22, at 87.

or sexual harassment.<sup>25</sup> But even in sensitive and controversial contexts, default rules might be important. For age discrimination, for example, the United States allows people to waive their rights at the point of retirement, subject to certain constraints.<sup>26</sup>

In this Article, I have two major goals. The first is to provide a general overview of what we now know about default rules—about when they have large effects and when they do not, and exactly why. In some cases, preferences do not antedate the default rule, or stand apart from it; they are constructed by it.<sup>27</sup> It is for this reason, among others, that default rules serve as a highly attractive alternative to incentives as a means of altering outcomes—at once less expensive and more effective.<sup>28</sup> Indeed, and because they specify a particular outcome in the (often likely) event of inaction, default rules can have a much larger effect than incentives.<sup>29</sup> Choice architects may well be able to use default rules to produce outcomes that could otherwise be achieved only through substantial expenditures of resources. Indeed, both private and public institutions are already doing exactly that.

The second goal is to make some progress toward understanding the choice among three alternatives: impersonal default rules, active choosing, and personalized default rules. In countless contexts, choice architects select one of these options. An impersonal default rule applies to all of a relevant population, establishing what happens if people do nothing. By contrast, active choosing asks people to make an explicit choice among the various options. Active choosing might be purely voluntary, as in the case of items in a grocery store, or it might be required, in the sense that people must make a choice in order to receive a benefit or to avoid a sanction. A personalized default rule attempts to distinguish among members of the relevant population, ensuring (in the extreme case) that each individual receives a default rule that fits his or her particular situation.

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<sup>25</sup> See, e.g., Title VII of the Civil Rights Act of 1964, 42 U.S.C. §§ 2000e–2000e-17 (2006) (prohibiting sex and race discrimination in the workplace under federal law).

<sup>26</sup> 29 U.S.C. § 626(f)(1) (2006). Note that the right is waivable for past violations, but not for future violations.

<sup>27</sup> See Johnson & Goldstein, *supra* note 6, at 425 (discussing how default rules might overcome organ shortages and encourage donation).

<sup>28</sup> *Id.* Another study finds that a default rule has a far greater effect than significant economic incentives in promoting savings, as reflected in the authors' suggestion: "[A]utomatic contributions are more effective at increasing savings rates than price subsidies for three reasons: (1) subsidies induce relatively few individuals to respond, (2) they generate substantial crowdout conditional on response, and (3) they do not influence the savings behavior of passive individuals, who are least prepared for retirement." Raj Chetty et al., *supra* note 11, at 2.

<sup>29</sup> See Johnson & Goldstein, *supra* note 6, at 425.

Most default rules are impersonal, in the sense that they do not distinguish among members of large groups to which they apply. Impersonal default rules might be chosen on several grounds. Perhaps there are no relevant differences among members of the groups affected by such rules, and hence impersonality is not damaging; personalized rules would be pointless. Perhaps choice architects lack the information that would justify greater personalization, and hence impersonality is the only approach that is feasible. Perhaps active choosing would be an unnecessary and unhelpful burden, producing confusion and frustration, and wasting time and effort, without improving outcomes. For these reasons, impersonal default rules may be the best approach, all things considered.

As we will see, however, active choosing can have significant advantages over impersonal default rules, especially when choice architects are ill-informed or untrustworthy and the relevant population is diverse. In the face of diversity, active choosing may reduce the mistakes associated with impersonal default rules. It may also promote learning and the development of new understandings, preferences, and values. If choice architects lack an accurate understanding of people's situations, or if they have their own agendas, it may be best to insist on active choosing. Those who emphasize the informational deficits faced by government might well favor active choosing.<sup>30</sup> While default rules allow people to opt out, they might not do so even if opting out is in their best interest. For the same reasons that default rules matter, opt-outs might be rare, or at least insufficiently frequent, even if and when they are desirable.<sup>31</sup>

Unfortunately, active choosing can also impose high costs. Life is short and people are busy. If they were required to engage in active choosing in the many domains in which they now benefit from default rules, they would end up having time for little else.<sup>32</sup> For many people, life is good in part because a series of desirable default rules are in place, ensuring that if they do nothing at all, things will go fine.<sup>33</sup> Default rules can promote both welfare and autonomy. Societies overlook this point at their peril. To be

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<sup>30</sup> See F.A. Hayek, *The Uses of Knowledge in Society*, 35 AM. ECON. REV. 519, 524-25 (1945) (discussing the problems that incomplete information can pose for decisionmakers).

<sup>31</sup> REBONATO, *supra* note 16, at 118-19. Note the importance of automatic escalation to accompany automatic enrollment to ensure that automatic enrollment does not produce low savings rates. Benartzi & Thaler, *supra* note 11, at 1152.

<sup>32</sup> See, e.g., Anuj K. Shah et al., *Some Consequences of Having Too Little*, 338 SCIENCE 682, 682 (2012) (addressing the competition for an individual's attention and its impact on decisionmaking).

<sup>33</sup> See ABHIJIT BANERJEE & ESTHER DUFLO, POOR ECONOMICS 64-68 (2011) (highlighting how nudges can start positive feedback loops in behavior that remain over time).

sure, learning can be important, but in many domains, it is not especially important to learn, especially because life is short.

In complex areas, active choosing might also lead to errors, as people make decisions that do not serve their own interests. Default rules may produce significantly better outcomes. If private or public institutions require active choosing, they might impose large burdens on themselves and on those with whom they interact, and the result might be to make people worse off. To be sure, these objections are not always serious, let alone decisive; free societies do not default people into either marriage or votes.<sup>34</sup> But in some contexts, the objections do have a great deal of force.

The great promise of personalized default rules is that they might eliminate the problems associated with impersonal ones without imposing the burdens, costs, and potential mistakes of active choosing. As default rules become more personalized, the comparative advantages of active choosing start to diminish, because personalized approaches can handle the problem of heterogeneity without requiring people to act at all. In many areas, personalized default rules promise to confer large social benefits. At the same time, such rules do not promote learning, and they may serve to narrow rather than broaden people's horizons, by promoting outcomes that are consistent with their past choices. In addition, it can be burdensome and expensive for choice architects to produce accurate personalized default rules, and such rules might be used opportunistically by those who are motivated by their own self-interest, rather than the interests of potential choosers. Personalized default rules might also create serious risks to personal privacy.

My basic conclusion is that the choice among impersonal default rules, active choosing, and personalized default rules cannot be made in the abstract. To know which is best, choice architects need to investigate the costs of decisions and the costs of errors. Four propositions are clear. *First*, impersonal default rules should generally be preferred to active choosing when the context is confusing and unfamiliar, when people would prefer not to choose, when learning is not important, and when the population is not heterogeneous along any relevant dimension. *Second*, active choosing should generally be preferred to impersonal default rules when choice architects lack relevant information, when the context is familiar, when people would actually prefer to choose (and hence choice is a benefit rather than a cost), when learning matters, and when there is relevant heterogeneity. *Third*,

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<sup>34</sup> For a detailed discussion of default rules in the context of marriage, see generally Elizabeth F. Emens, *Intimate Discrimination: The State's Role in the Accidents of Sex and Love*, 122 HARV. L. REV. 1307 (2009).

personalized default rules should generally be preferred to impersonal ones in the face of relevant heterogeneity. *Fourth*, personalized default rules (if accurate and in the face of heterogeneity) have significant advantages over active choosing because they produce benefits without requiring people to devote the time and effort to choosing;<sup>35</sup> hence personalized default rules deserve serious consideration whenever choice architects are both informed and trustworthy, at least if safeguards are in place to protect privacy.<sup>36</sup>

One of my basic claims is that in many domains, personalized default rules are the wave of the future, and for good reason. In ordinary life, family members and friends adopt, every day and in ways large and small (and often unconsciously), the functional equivalent of personalized default rules by assuming that people will want in the future what they have wanted in the past—or perhaps that they will want the same kinds of variety and surprise in the future that they have enjoyed in the past. For example, spouses and close friends select default options for restaurants, vacation spots, romance, and even conversations, subject to opt-out. If people like routine, spouses and friends choose routine as the default; if people like surprises, they choose surprises. As information accumulates about people's actual choices, many private and public institutions will be in a position to provide personalized default rules.<sup>37</sup>

A target of the discussion—one that I leave mostly implicit—is the idea that government legitimately interferes with private choices only to prevent “harm to others.” In a famous passage, John Stuart Mill insisted,

The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant. He cannot rightfully be compelled to do or forbear because it will be better for him to do so, because it will make him happier, because, in the opinion of others, to do so would be wise, or even right.<sup>38</sup>

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<sup>35</sup> See Daniel G. Goldstein et al., *Nudge Your Customers Toward Better Choices*, HARV. BUS. REV., Dec. 2008, at 99, 99-100 (providing real-world examples where the selection of specific default rules by businesses improved the customer experience).

<sup>36</sup> *Id.* at 101. A qualification is that personalized default rules do not promote learning; active choosing is preferable on that count.

<sup>37</sup> See Emir Kamenica et al., *Helping Consumers Know Themselves*, 101 AM. ECON. REV. 417, 422 (2011) (highlighting how improvements in technologies allow companies to learn more about their customers and institute default rules to match customer habits).

<sup>38</sup> JOHN STUART MILL, ON LIBERTY (2d ed. 1863), reprinted in THE BASIC WRITINGS OF JOHN STUART MILL: ON LIBERTY, THE SUBJECTION OF WOMEN, AND UTILITARIANISM 3, 11-12 (Dale E. Miller ed., 2002).

This passage raises many questions of interpretation, but it must engage with the fact that public institutions, no less than private ones, establish default rules, and these represent an exercise of power. Mill did not discuss default rules, and perhaps such rules can be squared with his basic account. Certainly such rules do not “compel” anyone to do or to forbear. But choice architects often select default rules on the ground that they help to produce decisions that will make people happier, and are either wise or right. Whether this is a point against such rules and in favor of active choosing requires careful consideration.

The remainder of the discussion is organized as follows. Part II explores why default rules matter, emphasizing the roles of inertia, suggestion, and loss aversion. Part III discusses defaults that do not stick. It shows that when people have clear preferences that antedate the default rule, they may well go their own way. Part IV investigates how to choose a default rule. It urges that the central goal should be to identify the approach that informed choosers would select—a proposition that raises both empirical and conceptual difficulties. Part V investigates the problem of bad defaults. Part VI turns to active choosing and the circumstances in which it is desirable. Part VII explores personalized default rules and suggests that they are, in many ways, the wave of the future. The Conclusion offers a general accounting.

## I. WHY DO DEFAULT RULES STICK?

### A. *The Remarkable Power of Defaults*

To appreciate the importance and potential of default rules, it will be useful to provide a few additional illustrations. For the moment, we shall be dealing only with impersonal default rules. In due course, we shall explore their limitations as well, and turn to more personalized alternatives.

#### 1. Bean Sprout and Soy Cheese Sandwiches

In 2011, I helped to organize a White House conference on information disclosure. Conference materials were sent out in advance to the three hundred registrants, who came from more than sixty agencies in the U.S government. In those materials, people were told that unless they specifically requested otherwise, they would receive the healthy lunch option. The materials explained: “Healthy options for lunch may include, but are not

limited to, a bean sprout and soy-cheese sandwich on gluten-free soda bread.”<sup>39</sup>

Most people are not enthusiastic about the idea of bean sprout and soy-cheese sandwiches, and it is doubtful that many people actually wanted them. But eighty percent of attendees failed to opt out. On the morning of the event, the participants were not exactly thrilled to learn that most of them had “selected” the bean sprout and soy cheese sandwich for lunch.<sup>40</sup> The good news is that people were not held to their apparent “selections”; they ended up with pretty good sandwiches.<sup>41</sup> Still, it is noteworthy that the well-educated participants ended up signing up, by default, for a quite unappealing meal.

## 2. Insurance

In the context of auto insurance, an unplanned, natural experiment showed that default rules can be very “sticky.”<sup>42</sup> Pennsylvania offered a default program containing a full right to sue and a relatively high premium; purchasers could elect to switch to a new plan by “selling” the more ample right to sue and paying a lower premium.<sup>43</sup> By contrast, New Jersey created a system in which the default insurance program for motorists included a relatively low premium and no right to sue; purchasers were allowed to deviate from the default program and to purchase the right to sue by choosing a program with that right and also a higher premium.<sup>44</sup>

In both cases, the default rule tended to stick. A strong majority accepted the default rule in both states, with only about twenty percent of New Jersey drivers acquiring the full right to sue, and seventy-five percent of Pennsylvanians retaining that right. Experiments confirm this basic effect, showing that the value of the right to sue is much higher when it is presented as part of the default package.<sup>45</sup> In a testimonial to the economic importance of defaults, an estimate suggests that the selection of the default in Pennsylvania

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<sup>39</sup> Richard Thaler & Will Tucker, *Smarter Information, Smarter Customers*, HARV. BUS. REV. Jan.–Feb. 2013, at 4 (describing the experiment).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> See, e.g., Eric J. Johnson et al., *Framing, Probability Distortions, and Insurance Decisions* [hereinafter *Framing*], in CHOICES, VALUES, AND FRAMES 224, 238 (Daniel Kahneman & Amos Tversky eds., 2000); see also Colin F. Camerer, *Prospect Theory in the Wild* (asserting that default rules establish a “reference point” from which people do not like to move), in CHOICES, VALUES, AND FRAMES, *supra*, at 288, 294–95; Cass R. Sunstein, *Switching the Default Rule*, 77 N.Y.U. L. REV. 106, 113 (2002) (explaining the effect of default rules in employment law).

<sup>43</sup> *Framing*, *supra* note 42, at 238.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 235–38.

produced \$140 million annually in additional insurance payments—and an aggregate amount of \$2 billion since 1991.<sup>46</sup> In the same vein, a natural field experiment at a large Swedish University found a large reduction in the use of paper as a result of a double-sided default for printing—with a significant and immediate effect in the form of a fifteen percent drop in paper consumption, and with that effect staying stable over time.<sup>47</sup>

### 3. Privacy

We are in the midst of a great deal of discussion of privacy rights on the Internet. Strong views are held on all sides. Some people believe that there should be a strong presumption in favor of privacy, to be overcome only by explicit statement of consent. On this view, the default rule should be protective of privacy. Other people believe that information sharing is an affirmative good and that privacy safeguards can create a kind of prisoner's dilemma, in which individually rational choices produce collective harm (in the form of reduced information about consumer goods, social risk, and political affairs). On this view, the default rule should support information sharing. Whatever the outcome of these debates, there is every reason to think that privacy rights and information sharing will be greatly affected by the default rule.

Suppose that a public or private institution says that information about your behavior (for example, the websites that you visit) will not be shared with anyone *unless you click on a button to allow information sharing*. Now suppose that the same institution says that such information will be shared *unless you click on a button to forbid such sharing*. Will the results be the same? Far from it.<sup>48</sup>

If people are asked whether they want to sacrifice privacy and opt in to information sharing, a lot of them will either ignore the question (perhaps because they are busy, inattentive, or distracted, or do not want to focus

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<sup>46</sup> Johnson & Goldstein, *supra* note 6, at 417.

<sup>47</sup> See Johan Egebark & Mathias Ekström, *Can Indifference Make the World Greener?* 3 (Research Inst. Of Ind. Econ., Working Paper No. 975, 2013), available at <http://papers.ssrn.com/id=2324922>.

<sup>48</sup> See Eric Johnson et al., *Defaults, Framing and Privacy: Why Opting In-Opting Out*, 13 *MARKETING LETTERS* 5, 9 (2002) (highlighting that rates of participation in online studies were drastically different depending on whether participation was framed as an opt-in or opt-out); see also Rebecca Balebako et al., *Nudging Users Towards Privacy on Mobile Devices* (2011) (unpublished manuscript), available at <http://www.andrew.cmu.edu/user/pgl/paper6.pdf> (reviewing the literature on nudges in privacy decisionmaking). For some significant qualifications, see Lauren Willis, *Why Not Privacy by Default?*, *BERKELEY TECH. L.J.* (forthcoming 2014), available at <http://papers.ssrn.com/id=2349766>.

on it) or decline (perhaps on the ground that if their privacy is now protected, they do not want to sacrifice that protection). In either case, their information will not be shared. If, by contrast, people are asked whether they want to opt out of information sharing and protect their privacy, a lot of them will also ignore the question, or decline, perhaps on the ground that they might not want to lose the potential advantages of such sharing—especially if they have to think a little bit, read something complicated, and form a preference in order to decide whether to switch. In that case, their information will be shared.

In the domain of privacy on the Internet, a great deal depends on the default rule. If a web browser defaults people into privacy-protective settings, the outcomes will be very different from what they would be if people have to select privacy settings every time. Consider, for example, the current choice architecture on Google Chrome. People are allowed to select “Incognito,” but it is not the default, and users cannot establish it as the default; they are required to select it, and to “go Incognito” by choice, every time.<sup>49</sup>

#### 4. Vacation Time

Might people’s workplace benefits, such as vacation time, depend on the legal default rule? To answer that question, consider a simple experiment that I conducted a few years ago.<sup>50</sup> About seventy-five randomly chosen law students were asked to answer Question 1, and about seventy-five randomly chosen law students were asked to answer Question 2.<sup>51</sup> Note that the answers to these two questions were in many respects quite realistic. Law students are very much in the position of trading off variables in the selection of work, and both vacation time and salary matter to their decisions.

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<sup>49</sup> See *Incognito Mode (Browse in Private)*, GOOGLE, <https://support.google.com/chrome/answer/95464?hl=en> (last visited Oct. 28, 2013) (explaining what Incognito mode is and how to use it).

<sup>50</sup> Sunstein, *supra* note 42, at 113-14.

<sup>51</sup> *Id.* at 113.

## Question 1:

Imagine that you have accepted a job with a law firm in a large city. Your salary will be \$120,000. Under state law, all companies must provide non-managerial employees, including associates at law firms, with a minimum of two weeks in vacation time each year.

Suppose that the firm that you have chosen tells us that it will allow you to have two extra weeks of vacation, but at a somewhat reduced salary. What is the most that you would be willing to pay, in reduced salary, to obtain those two extra weeks of vacation time? (Assume that no adverse consequences could possibly come to you from bargaining for that extra vacation time.)<sup>52</sup>

## Question 2:

Imagine that you have accepted a job with a law firm in a large city. Your salary will be \$120,000. Under state law, all companies must provide non-managerial employees, including associates at law firms, with a *non-waivable* minimum of two weeks in vacation time each year. State law also provides that all companies must provide non-managerial employees, including associates at law firms, with a *waivable* extra two weeks in vacation time each year. The extra two weeks can be waived only as a result of “explicit, non-coerced agreements” between the parties.

Suppose that the firm that you have chosen would be willing to pay you a certain amount, in extra salary, to get you to waive your right to the two extra weeks in vacation time. What is the least that the firm would have to pay you, in extra salary, to give up those two extra weeks? (Assume that no adverse consequences could possibly come to you from your refusal to waive, or from your demanding a high amount to waive.)<sup>53</sup>

The results were dramatic. If the legal default rule includes more vacation time, people will demand a great deal to give it up; if the legal default rule does not include more vacation time, people will not pay a great deal to “buy” it. More specifically, the median willingness to pay (Question 1) was \$6000, whereas the median willingness to accept (Question 2) was \$13,000.<sup>54</sup>

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<sup>52</sup> *Id.*

<sup>53</sup> *Id.* (emphasis added).

<sup>54</sup> *Id.*

### 5. Taxis and Default Tips

In a number of cities, taxi cabs have installed a credit card touchscreen,<sup>55</sup> which suggests three possible tips by making them visible and easily available for customers to select with a quick “touch.” In New York City, for rides of more than \$15, the suggested amounts are usually 20%, 25%, or 30%.<sup>56</sup> People are free to give a larger tip, a smaller tip, or no tip at all, but it is easiest just to touch one of the three conspicuous options.

The touchscreen makes everything simpler, but it also operates as a kind of default. To be sure, it is not precisely that, because it does not establish what happens if people do nothing. Any tip requires some kind of effort. But the touchscreen does, in a sense, establish default tips. To depart from them, customers have to do at least a little bit of extra work, and for that reason it might be expected that the defaults will affect the tips that drivers receive. Do they?

Kareem Haggag and Giovanni Paci compiled data on more than 13 million New York taxi rides.<sup>57</sup> To test the effect of the defaults, they examined data from two companies that were contracted to provide credit card machines to New York City taxis.<sup>58</sup> One company provided somewhat lower defaults of 15%, 20% and 25%.<sup>59</sup> Do people tip less when presented with these lower defaults? The other company, with the higher defaults, provided lower default percentages for fares less than \$15. Do those lower percentages reduce tips?

The main finding is that the higher default tips led to significant increases—by an average of more than 10%.<sup>60</sup> If a driver makes \$6000 in tips in a year, the higher defaults lead to a \$600 raise (and the taxi industry as a whole will receive many millions of dollars of additional revenue annually). Notably, the relatively high defaults also have an unintended side effect: They produce a 1.7 percentage-point increase in the probability of a tip of

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<sup>55</sup> See, e.g., Benjamin R. Freed, *Credit Card Readers Are Actually Being Installed in D.C. Taxis*, DCIST (July 3, 2013, 10:35 AM), [http://dcist.com/2013/07/credit\\_card\\_readers\\_are\\_actually\\_be.php](http://dcist.com/2013/07/credit_card_readers_are_actually_be.php) (discussing the gradual introduction of these screens in the nation's capital).

<sup>56</sup> See Michael M. Grynbaum, *City's Cabbies Like Plastic. Who Knew?* N.Y. TIMES, Nov. 8, 2009, at A1 (discussing how credit cards have been good for business); Alex Tabarrok, *Taxi Tip Nudge*, MARGINAL REVOLUTION (Dec. 6, 2012), <http://marginalrevolution.com/marginalrevolution/2012/12/taxi-tip-nudge.html> (discussing the taxi tip nudge and providing an example of a credit card touchscreen).

<sup>57</sup> Kareem Haggag & Giovanni Paci, *Default Tips 2* (Columbia Dep't of Econ. Discussion Paper Series, Paper No. 1213-1, 2013), available at <http://academiccommons.columbia.edu/catalog/ac:157853>.

<sup>58</sup> *Id.* at 6.

<sup>59</sup> *Id.* at 3.

<sup>60</sup> *Id.*

zero.<sup>61</sup> That backlash effect is not huge, and drivers are still significantly ahead on balance. But it is reasonable to speculate that higher default tips would increase the probability of zero tips, and that speculation, along with the backlash finding, are suggestive about when a default will not prove sticky. Nonetheless, the central finding is clear, and it is that default tips have a significant impact.

### B. *Explanations*

A great deal of research explores exactly why default rules have such a large effect on outcomes.<sup>62</sup> There appear to be three principal contributing factors.

#### 1. Inertia

The first involves inertia and procrastination (sometimes described as “effort” or an “effort tax”<sup>63</sup>). To change the default rule, people must make an active choice to reject that rule. They have to focus on and answer the relevant question—whether they should be enrolled in a savings plan, or whether they should have green energy, or whether they would gain or lose from a privacy policy, or whether they should give a particular tip. Especially (but not only) if the question is difficult or technical, it is tempting to defer the decision or not to make it at all. In view of the power of inertia and the tendency to procrastinate, people may simply continue with the status quo.

Consider in this regard a study of television viewing, where inertia exerts a powerful force.<sup>64</sup> As programs become more popular, the programs that follow them also become more popular simply because the current

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<sup>61</sup> *Id.* at 24.

<sup>62</sup> See, e.g., Gabriel D. Carroll et al., *Optimal Defaults and Active Decisions*, 124 Q.J. ECON. 1639, 1641-43 (2009) (studying the effect on outcomes when a firm switched to an auto-enrollment 401(k) plan); William G. Gale, J. Mark Iwry & Spencer Walters, *Retirement Savings for Middle- and Lower-Income Households: The Pension Protection Act of 2006 and the Unfinished Agenda* (exploring the effects of default rules on 401(k) plans), in *AUTOMATIC* 11, 13-14 (William G. Gale et al. eds., 2009); Isaac M. Dinner et al., *Partitioning Default Effects: Why People Choose Not to Choose* 3 (Nov. 28, 2010) (unpublished manuscript), available at <http://papers.ssrn.com/id=1352488> (examining “no-action” defaults).

<sup>63</sup> See Johnson & Goldstein, *supra* note 6, at 420-21 (noting that defaults can increase the difficulty of opting in to a nonmajority option); see also Jeffrey R. Brown et al., *The Downside of Defaults* 20-21 (Sept. 16, 2011) (unpublished manuscript), available at <http://www.nber.org/programs/ag/rcc/NB1101%20Brown,%20Farrell,%20Weisbenner%20FINAL.pdf> (citing procrastination as one reason for default).

<sup>64</sup> Constança Esteves-Sorenson & Fabrizio Perretti, *Micro-Costs: Inertia in Television Viewing*, 122 ECON. J. 867, 868 (2012).

channel is the default. More particularly, a ten percent increase in the popularity of the preceding program leads to a remarkable two to four percent increase in the audience for the following program.<sup>65</sup> A striking finding is that stations exploit this behavior when scheduling their programs—and if they did not, they would lose up to forty percent of their profits.<sup>66</sup>

For television programs, of course, viewers simply need to push a button to switch the channel, and channel-switching is the furthest thing from difficult. Opting in or opting out of default rules might be equally easy, but in many cases, it involves some thinking and some risk. The default rule might stick simply because people do not want to engage in that thinking and take that risk. And even if they want to do so, they might decide that they will do so tomorrow—and tomorrow never comes.

Are there neurological markers of the effects of defaults? A study of the brain, using fMRI scanning, confirms the suggestion that default settings are especially important in complex situations.<sup>67</sup> In this study, participants acted as line judges in a tennis match.<sup>68</sup> An established default, provided to participants, suggested whether the ball was in or out, but the participants could override the default.<sup>69</sup> As the decision became harder—because the call was closer—people became more likely not to alter the default.<sup>70</sup> The striking finding is that the regions of the brain associated with more difficult decisions (the inferior frontal cortex) were more active when people rejected the default.<sup>71</sup> This finding has general implications. It suggests that default rules are more likely to stick when the underlying decision is hard—and hence that opt out is less likely to be a useful safeguard in such circumstances. Consistent with this suggestion, complexity has sometimes been treated as an independent reason for the power of defaults,<sup>72</sup> though it might be more properly treated as an amplifier of inertia, or an increase in the “effort tax.” I will return to this point.

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<sup>65</sup> *Id.* at 869.

<sup>66</sup> *Id.* at 900.

<sup>67</sup> Stephen M. Fleming et al., *Overcoming Status Quo Bias in the Human Brain*, 107 PROC. NAT'L ACAD. SCI. 6005, 6005 (2010).

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* at 6007.

<sup>72</sup> See John Beshears et al., *The Importance of Default Options for Retirement Saving Outcomes: Evidence from the USA* (arguing that lower participation in opt-in savings plans is a result of the complexity of making an optimal savings plan decision), in LESSONS FROM PENSION REFORMS IN THE AMERICAS 59, 74-75 (Stephen Kay & Tapen Sinha eds. 2008).

We might want to make a distinction here between two kinds of effort. The first is the effort involved in focusing on the problem and the default rule, and then on whether to change it. Even if one begins with an initial preference of some kind, any such effort may be at least mildly unwelcome. Life is short, people are busy, and there are other and more enjoyable things to do. The second and perhaps more interesting kind is the effort involved in forming a preference in the first place. People may not yet have developed a preference with respect to whether to enroll in some program or to start some activity. The default rule may help to construct that preference, but what I am now emphasizing is an independent point, which is that people might have to engage in some real work in order to decide what their preferences are. Consider, for example, the question of which energy source to use; people may not have a preference on that count and it may take considerable work to form one.<sup>73</sup>

The importance of effort, in helping defaults to stick, is demonstrated by evidence that when people are tired—for example, because they have made a large number of choices—they are more likely to stay with the default.<sup>74</sup> One implication is that if time is scarce, or if people have many decisions to make, the default will be particularly appealing because something like the “‘yeah, whatever’ heuristic”<sup>75</sup> will be hard to resist.<sup>76</sup>

With respect to the effects of inertia, consider the finding that a change in the default thermostat setting has a major effect on OECD employees.<sup>77</sup> During winter, a 1°C decrease in the default caused a significant reduction in the average chosen setting. The evident explanation is that because of the power of inertia, most employees did not bother to alter the default. This interpretation is supported by the noteworthy finding that when choice architects reduced the default setting by 2°C, the reduction in the average chosen setting was actually smaller, apparently because sufficient numbers of employees thought that it was too cold, and returned the setting to the

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<sup>73</sup> See Sunstein & Reisch, *supra* note 4, at 1-4 (discussing the factors an individual might consider relevant when choosing a particular energy source).

<sup>74</sup> See Jonathan Levav et al., *Order in Product Customization Decisions: Evidence from Field Experiments*, 118 J. POL. ECON. 274, 277 (2010) (“[C]hoice overload’ can prompt people to forgo making a choice altogether . . .”).

<sup>75</sup> See THALER & SUNSTEIN, *supra* note 12, at 34-35 (suggesting that the “yeah, whatever” heuristic is a form of the status quo bias, which is defined as a “general tendency to stick with the[] current situation”).

<sup>76</sup> See generally SENDHIL MULLAINATHAN & ELДАР SHAFIR, SCARCITY (2013) (discussing the effects of scarcity, particularly the impact of scarcity of time on decisionmaking).

<sup>77</sup> See Zachary Brown et al., *Testing the Effects of Defaults on the Thermostat Settings of OECD Employees*, 39 ENERGY ECON. 128 (2013).

one that they preferred.<sup>78</sup> In the face of clear discomfort, inertia is overcome.

## 2. Endorsement

The second factor involves what people might see as an “implicit endorsement” of the default rule. If choice architects have explicitly chosen that rule, people may believe that they have been given an implicit recommendation, and that they should not depart from it unless they have private information that would justify a change.<sup>79</sup> Suppose, for example, that the default choice is green energy, or that a public or private employer automatically enrolls employees into a particular pension plan. It is tempting to think that experts, or sensible people, believe that these are the right courses of action. Those who are deciding whether to opt out might trust the choice architects well enough to follow their lead. Many people appear to think that the default was chosen by someone sensible and for a good reason. Especially if they lack experience or expertise, they might simply defer to what has been chosen for them.

Indeed, there is strong evidence that a lack of information on the part of choosers, including a lack of information about alternatives, helps to account for the power of defaults.<sup>80</sup> This finding suggests that default rules are less likely to have an effect when people consider themselves to be experienced or expert, and indeed there are findings to precisely this effect among environmental economists, who reject selected defaults in the environmental area.<sup>81</sup> In another study, over half of those who stuck with the default specifically mentioned an absence of private information as one of their reasons for doing so.<sup>82</sup> An implication of this explanation—suggestive of a

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<sup>78</sup> *Id.*

<sup>79</sup> See Brigitte C. Madrian & Dennis F. Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, 116 Q.J. ECON. 1149, 1182 (2001) (suggesting that employees are more likely to invest in a 401(k) retirement plan if the default rule is to allocate part of their income because “employees view the default investment allocation under automatic enrollment as implicit advice from the company on ‘the best’ allocation of one’s retirement assets”); Craig R.M. McKenzie, Michael J. Liersch & Stacey R. Finkelstein, *Recommendations Implicit in Policy Defaults*, 17 PSYCHOL. SCI. 414, 418-19 (2006) (describing experiments in which policymakers’ preferences were reflected in the default option provided to decisionmakers, who were in turn unlikely to deviate from the default). Of course, it is not true that all defaults are chosen because they produce the best outcomes for decisionmakers.

<sup>80</sup> See Brown et al., *supra* note 63, at 3 (“[A] lack of adequate information about decision alternatives is a significant driver of the likelihood of default . . .”).

<sup>81</sup> Åsa Löfgren et al., *Are Experienced People Affected by a Pre-Set Default Option—Results From a Field Experiment*, 63 J. ENVTL. ECON. & MGMT. 66 (2012).

<sup>82</sup> See Brown et al., *supra* note 63, at 19 (“In total, 51.3 percent of the defaulters chose at least one information-related problem as an explanation for their default behavior . . .”).

method for testing whether inertia or instead perceived endorsement is making the default rule stick—is that if choosers do not trust the choice architect, they will be far more likely to opt out. And indeed, there is evidence for this proposition as well.<sup>83</sup>

An important qualification of the “implied endorsement” explanation involves an apparent information asymmetry.<sup>84</sup> There is evidence that people believe that *automatic enrollment conveys information about what is sensible or best—but that automatic nonenrollment does not*.<sup>85</sup> The evident reason is that people take automatic enrollment as a deliberate choice by the choice architects, and they believe that the choice would be made only if there was a good reason. By contrast, people take nonenrollment to reflect simple inaction, without any supporting reason, and hence not to convey information.<sup>86</sup> (Note that this is a plausible inference.) Apparently many people are willing to ask about the reason for the default rule. While people understood automatic enrollment to be motivated by a judgment that enrollment is a good idea, they think that nonenrollment may have no particular motivation and may instead result from a failure to make any kind of judgment about what is best.<sup>87</sup>

This evidence suggests that while automatic enrollment would stick as a result of both inertia and endorsement, automatic nonenrollment would stick only for the former reason. Another implication, with experimental support, is that when people trust the choice architect, automatic enrollment will be particularly sticky, but not so much when trust is low; similar swings should not be seen for nonenrollment.<sup>88</sup>

### 3. Reference Point and Loss Aversion

The default rule helps to establish the “reference point” for people’s decisions. Consider in this regard the behavioral finding of loss aversion. People dislike losses far more than they like corresponding gains,<sup>89</sup> and

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<sup>83</sup> See David Tannenbaum & Peter H. Ditto, Information Asymmetries in Default Options 11-17 (unpublished manuscript), available at <https://webfiles.uci.edu/dtannenb/www/documents/default%20information%20asymmetries.pdf> (describing a study in university classrooms that found a positive correlation between students’ trust in their instructor and their decision to stick with a default scheme of assignment due dates).

<sup>84</sup> *Id.* at 17.

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

<sup>87</sup> Note that viewing nonenrollment as a result of mere inaction is also a plausible inference.

<sup>88</sup> Tannenbaum & Ditto, *supra* note 83, at 4.

<sup>89</sup> See Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem* (highlighting the phenomenon of loss aversion, where “losses are weighted substantially more than objectively commensurate gains”), in *QUASI RATIONAL*

whether a loss or a gain is involved does not come from nature or from the sky. The default rule determines what counts as a loss and what counts as a gain.

To appreciate the power of loss aversion and its relationship to default rules, consider an ingenious study of teacher incentives.<sup>90</sup> Many people have been interested in encouraging teachers to do better to improve their students' achievements. The results of providing economic incentives are decidedly mixed; unfortunately, many of these efforts have failed.<sup>91</sup> But the relevant study enlists loss aversion by resetting the default. The authors gave teachers money in advance and told them that if their students did not show real improvements, *the teachers would have to give the money back*.<sup>92</sup> The result was a significant increase in math scores<sup>93</sup>—indeed, an increase equivalent to a substantial improvement in teacher quality. The underlying idea here is that losses from the status quo are especially unwelcome, and people will work hard to avoid those losses.<sup>94</sup>

In short, what counts as a loss depends on the reference point, which is established by the default rule.<sup>95</sup> Suppose that employees are receiving \$5000 per month in take-home salary, and that the question is whether they want some of that amount to be deducted for savings. If so, employees might decline. Who wants to lose a significant part of their take-home pay? But if employees are receiving \$4800 per month in take-home salary and \$200 per month is going into savings, they might not complain—and they

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ECONOMICS 167, 169 (Richard H. Thaler ed. 1994); A. Peter McGraw et al., *Comparing Gains and Losses*, 21 PSYCHOL. SCI. 1438, 1443-44 (2010) (concluding that loss aversion manifests itself even in tasks where gains and losses are placed in the same context). Vivid evidence of loss aversion can be found in David Card & Gordon B. Dahl, *Family Violence and Football: The Effect of Unexpected Emotional Cues on Violent Behavior*, 126 Q.J. ECON. 103, 105-06, 130-35 (2011) (finding an increase in domestic violence after a favored football team suffers an upset loss).

<sup>90</sup> Roland G. Fryer, Jr. et al., *Enhancing the Efficacy of Teacher Incentives Through Loss Aversion: A Field Experiment 2-3* (Nat'l Bureau of Econ. Research, Working Paper No. 18237, 2012), available at <http://www.nber.org/papers/w18237.pdf>.

<sup>91</sup> Field experiments in the United States that have linked teacher pay to teacher performance "have shown small, if not negative, treatment effects." *Id.* at 2.

<sup>92</sup> *Id.* at 3.

<sup>93</sup> *Id.*

<sup>94</sup> A study that examined the District of Columbia's small, five-cent tax on disposable grocery bags clearly demonstrates the powerful effect of loss aversion. That study showed that the tax has had a significant effect in reducing disposable grocery bag use—but that, prior to the implementation of the tax, small, five-cent bonuses that stores offered customers for using reusable bags had essentially no effect. Tatiana A. Homonoff, *Can Small Incentives Have Large Effects? The Impact of Taxes Versus Bonuses on Disposable Bag Use 2-4* (Mar. 27, 2013) (unpublished manuscript), available at [http://www.princeton.edu/~homonoff/THomonoff\\_JobMarketPaper.pdf](http://www.princeton.edu/~homonoff/THomonoff_JobMarketPaper.pdf).

<sup>95</sup> See Dinner et al., *supra* note 62, at 6 (explaining how a decisionmaker may act as if she has already chosen the default option and will use it as a reference point).

might strongly resist the idea of taking away that \$200 per month from savings. Who wants to lose their savings? With respect to the power of default rules, several of the findings described thus far are plausibly attributable to loss aversion.

In many areas, loss aversion matters, and it helps to explain the effect of the default rule. Energy use and environmental protection are among them. If, for example, the default rule favors energy-efficient light bulbs, and people are asked whether they want less efficient bulbs, then the loss (in terms of reduced efficiency) may loom large and they will continue to purchase energy-efficient light bulbs.<sup>96</sup> But if the default rule favors less efficient (and initially less expensive) light bulbs, and people are asked whether they want to pay more for efficient ones, then the loss (in terms of upfront costs) may loom large, and there will be a tendency to favor less efficient light bulbs.

#### 4. Deliberate Defaulting and Reflective Indifference

The three factors just outlined are the major ones, but there are others.<sup>97</sup> In particular, choosers might actually prefer the default and stick with it because they do so. Alternatively, choosers might be indifferent, on reflection, among the various options, and they might stick with the default simply to minimize costs and burdens. This explanation is close to the first, but it does not involve inertia as such. In some cases, people stick with the default, whatever it is, because they do not think it is worthwhile to undertake (even minimal) effort to change it.

#### 5. Diverse Explanations, Diverse Concerns

The explanation for the stickiness of the default rule may be relevant to the decision about whether to change it. Each explanation raises its own concerns.<sup>98</sup>

Suppose that people do not alter the default rule because they believe that choice architects have implicitly endorsed it. On the one hand, choice architects might consider themselves relatively free to adopt the default rule that they do in fact endorse. On the other hand, some prominent work

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<sup>96</sup> *Id.* at 12-14; see also THALER & SUNSTEIN, *supra* note 12, at 22-37 (describing a set of heuristics and biases).

<sup>97</sup> See Brown et al., *supra* note 63, at 18-21 (listing various reasons that may account for default behavior).

<sup>98</sup> See Johnson & Goldstein, *supra* note 6, at 422 (suggesting that among effort, implied endorsement, and loss aversion, none is the primary cause of a default rule's stickiness, and that "it seems quite possible that the strength of each differs according to context").

suggests that when trusted authorities tell people to do something, they become more likely to do it, even if it involves cruelty and indeed torture.<sup>99</sup> Recent explanations of this phenomenon point to the fact that people believe in experts, and when trusted authorities seem to have expertise, people will follow them.<sup>100</sup>

Here, then, is a serious problem: People may follow authorities who set default rules, in deference to their expertise, even if the rules are objectionable or nefarious. To be sure, choice architects are most unlikely to believe themselves to be nefarious, and hence they are unlikely to be moved by this concern. But from the social point of view, the power of authority and expertise will argue in favor of active choosing in circumstances in which the choice architects cannot be trusted.

If the default rule sticks as a result of inertia or loss aversion, the underlying concern is different. There might seem to be a risk that choice architects are manipulating people or exploiting behavioral findings to produce their preferred outcomes.<sup>101</sup> Even in such cases, however, we do not have an objection to default rules as such. Any default is likely to have an influence, and the question would seem to be which default rule is best. That question must be addressed on the merits. But at least in cases involving inadequately informed or untrustworthy choice architects, there is an argument on behalf of active choosing; I turn to that argument in due course.

## II. NONSTICKY (IMPERSONAL) DEFAULT RULES

In some circumstances, impersonal default rules do not stick. To understand the uses and limits of this particular kind of nudge, and to see why active choosing and personalized defaults might be better, we need to specify those circumstances.

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<sup>99</sup> See STANLEY MILGRAM, *OBEDIENCE TO AUTHORITY: AN EXPERIMENTAL VIEW* 1-12 (1974) (describing an experiment in which participants obeyed instructions to administer electric shocks to actors who were pretending to be volunteers in another room despite orders to increase the number of volts administered).

<sup>100</sup> See CASS R. SUNSTEIN, *WHY SOCIETIES NEED DISSENT* 32-37 (2003) (summarizing the Milgram experiment and exploring it as a prominent example of individuals blindly following expertise).

<sup>101</sup> See, e.g., Edward L. Glaeser, *Paternalism and Psychology*, 73 U. CHI. L. REV. 133, 136-39 (2006) (offering examples of how individuals' beliefs and opinions can be manipulated); Joshua D. Wright & Douglas H. Ginsburg, *Behavioral Law and Economics: Its Origins, Fatal Flaws, and Implications for Liberty*, 106 NW. U. L. REV. 1033, 1049 & n.71 (2012) (citing literature studying how companies exploit cognitive biases).

*A. Clear Preferences and Extreme Defaults*

Consider the question of marital names.<sup>102</sup> When people marry, all states in the United States have the same default rule: Both men and women retain their premarriage surnames. But there is nothing inevitable about the current default rule. We could easily imagine a large number of alternatives. For example:

- The husband's surname stays the same and the wife's surname changes to that of her husband. Indeed, that approach, however discriminatory (and almost certainly unconstitutional), would mimic people's actual choices, at least in the United States.
- The husband's surname changes to that of his wife, and the wife's name stays the same.
- The spouses' surnames are hyphenated.
- The spouses' surnames are changed to Skywalker, or Longstocking, or Obama, or Gaga, or Potatohead.

What are the effects of the current rule? In the overwhelming majority of cases, American men do stick with the default. Relatively few men change their names. By contrast, the overwhelming majority of American women do so—for college graduates, eighty percent.<sup>103</sup> In that respect, the default rule seems to have relatively little impact on women. To be sure, it is quite possible that the percentage of women who change their names would be even higher if they were defaulted into doing so. Nonetheless, it is revealing that most married women reject the default.

Why doesn't the default rule stick for women? Three factors seem to be important. First, many women (undoubtedly affected by social norms, which some women may wish to be otherwise) affirmatively want to change their names, and their desire is not unclear.<sup>104</sup> This is not a complex or unfamiliar area in which people have vague or ambiguous all-things-considered

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<sup>102</sup> For a full discussion of defaults in the context of marital names, see generally Elizabeth F. Emens, *Changing Name Changing: Framing Rules and the Future of Marital Names*, 74 U. CHI. L. REV. 761 (2007).

<sup>103</sup> *Id.* at 786.

<sup>104</sup> To be sure, the full picture here is unclear, and the word "want" elides some important issues. In many cases, social norms (whether or not women or men approve of them) exert a degree of pressure, and some husbands undoubtedly make their own preferences clear. These factors can affect the choices of wives. Social norms can operate as the equivalent of a default rule and overcome the legal default. It is possible that this account is, for many wives, the underlying story here.

preferences. The social norm may establish a kind of default that overwhelms the effect of the legal default rule. Second, the issue is highly salient to married women, and because marriage is a defined and defining event, the timing of the required action is relatively clear as a social matter at least. Procrastination and inertia are therefore less important; the effort tax is worth incurring. Third, the change of name is, for some or many of those who do it, a kind of celebration. It is not the sort of activity that people seek to defer. If people affirmatively like to choose, a supposed effort tax is nothing of the sort; it may even be a kind of effort subsidy.<sup>105</sup> (There is a lesson here about when choosing is a benefit rather than a burden.) When the relevant conditions are met—clear preferences, clear timing, and positive feelings about opt-in—the default rule is unlikely to matter much.<sup>106</sup>

Indeed, clear preferences are likely to be sufficient to ensure that the default rule will not stick. Recall that preferences may be constructed by default rules, rather than antedating them.<sup>107</sup> If preferences are clear, inertia will be overcome; people will not be much moved by any endorsement taken to be reflected in the default rule;<sup>108</sup> and loss aversion will be far less relevant, in part because the clear preference helps define the reference point from which losses are measured. Suppose that employees are automatically enrolled into a plan that puts eighty percent of their income into savings, or sixty percent of their income into their nation's treasury (after taxes!), or twenty percent of their income into their worst enemy's savings account,<sup>109</sup> or ten percent of their income into the toilet. Most employees in such plans will undoubtedly opt out.

A study in the United Kingdom found that most people opted out of a savings plan, admittedly less horrible than those just described, but with an unusually high default contribution rate (twelve percent of pretax income).<sup>110</sup> Only about twenty-five percent of employees remained at that rate after a year, whereas about sixty percent of employees shifted to a lower default

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<sup>105</sup> In certain circumstances, of course, making a choice may serve as a benefit rather than a burden.

<sup>106</sup> Elizabeth Emens has offered a number of suggestions in the context of marital names. *Emens, supra* note 102, at 829-36.

<sup>107</sup> Johnson & Goldstein, *supra* note 6, at 425.

<sup>108</sup> Though the general point holds, in the context of marital names the issue may be more complex, especially in light of the evident power of social norms. *Emens, supra* note 102, at 839.

<sup>109</sup> On using strategies of this sort as precommitment devices, see generally IAN AYRES, *CARROTS AND STICKS* (2010).

<sup>110</sup> John Beshears et al., *The Limitations of Defaults* (Sept. 15, 2010) (unpublished manuscript), available at <http://www.nber.org/programs/ag/trc/NB10-02,%20Beshears,%20Choi,%20Laibson,%20Madrian.pdf>.

contribution rate.<sup>111</sup> Notably, people with lower incomes were more likely to stay at the unusually high contribution rate.<sup>112</sup> Similar findings have been made elsewhere, with growing evidence that those who are less educated or less sophisticated are more likely to stick with the default.<sup>113</sup>

A clear implication is that “extreme” defaults are less likely to stick. A more puzzling implication, based on the lower incomes of those who stayed with the default in the study just described, is that default rules may be more sticky for low-income workers than for their higher-earning counterparts. One reason may be that low-income workers have a great deal to worry about,<sup>114</sup> and so are less likely to take the trouble to think through and to alter the default rule. An effort tax may seem especially high to, and have an especially large adverse effect on, people who are already facing a large number of decisions and costs. Another reason may be that low-income workers have less confidence in their own judgments, and so they allow the default allocation to stick.

Indeed, there is general evidence that when people are experienced, and hence know what they want, they are far less likely to be affected by the default rule.<sup>115</sup> One reason is that the effort tax is worth incurring.<sup>116</sup> The fact that low-income workers have been found not to opt out has important implications for the uses and limits of default rules. Among other things, it suggests a potential danger in both impersonal and personalized defaults, which may prove harmful and be likely to stick. Distributional considerations, and in particular adverse effects on poor people, may raise particular problems for certain default rules, at least if they are not in the interest of a number of people to whom they apply—a point to which I will return.

There are other situations in which the default rule does not have a large impact. Workers are not so much affected if a significant fraction of their tax

<sup>111</sup> *Id.* at 8.

<sup>112</sup> *Id.* at 10-11.

<sup>113</sup> Brown et al., *supra* note 63, at 3.

<sup>114</sup> See BANERJEE & DUFLO, *supra* note 33, at 64-68 (explaining that people, especially the poor, postpone small costs necessary for long-term rewards in exchange for small rewards in the present); see also Shah et al., *supra* note 32, at 682-83 (describing some effects of attention neglect on low-income individuals); cf. Jacob Goldin & Tatiana Homonoff, *Smoke Gets in Your Eyes: Cigarette Tax Salience and Regressivity*, 5 AM. ECON. J.: ECON. POL’Y, Feb. 2013, at 302, 331 (finding that low-income people pay more particular attention to taxes at the register than wealthier people). For a discussion of the effects of scarcity in depleting psychological resources of poor people, see generally MULLAINATHAN & SHAFIR, *supra* note 76.

<sup>115</sup> See Löfgren et al., *supra* note 81, at 68-69 (2012) (finding “no significant effect of default options in [the] experienced sample”).

<sup>116</sup> Note, however, that poor people are uniquely attentive to sales taxes levied at the register. Goldin & Homonoff, *supra* note 114, at 331. This finding suggests the possibility that in some domains, poor people may be especially attentive and hence more likely to opt out.

refund is defaulted into U.S. savings bonds. In large numbers, they opt out, apparently because they have definite plans to spend their refunds and do not have much interest in putting their tax refunds into savings.<sup>117</sup> The central finding—that default rules will have a weaker effect, and potentially no effect, when people have a strong antecedent preference for a certain outcome—is both a warning and an opportunity. It is a warning because it suggests that the default rule may not have the hoped-for effect. It is an opportunity because it suggests that the ability to opt out can be an important safeguard against defaults that are unhelpful or affirmatively harmful.

For choosers, relevant considerations include knowledge of alternatives and trust in the choice architect. If choosers know about approaches that differ from those in the default, they may well consider whether to select those options. And if choosers think that the choice architects are not trustworthy, they will not be much influenced by them (though inertia may still have a powerful effect). Indeed, there is good evidence that people will switch if they do not trust choice architects; in particular, a number of people reject automatic enrollment for that reason.<sup>118</sup> And if people do not have preexisting preferences—if their preferences are effectively constructed by the choice architect—then they are highly likely to stick with the default.<sup>119</sup>

### B. Prompting Opt-Out

In some situations, defaults may not stick even though they *are* important safeguards. Suppose that self-interested people have a strong incentive to promote opt-out. If so, they might be able to take steps to achieve their goals. If green energy is far less profitable than more conventional energy sources, we can be confident that those who sell conventional energy will take aggressive steps to encourage people to opt out of any default rule in favor of green energy. Especially if those steps are not only aggressive but also behaviorally informed, they might well succeed; they might, for example, enlist loss aversion to encourage opt-out. Here, then, is

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<sup>117</sup> See Erin Todd Bronchetti et al., *When a Nudge Isn't Enough: Defaults and Saving Among Low-Income Tax Filers* 28-29 (Nat'l Bureau of Econ. Research, Working Paper No. 16887, 2011), available at <http://www.nber.org/papers/w16887> (explaining that default manipulation did not have an impact on tax refund allocation to a savings bond where an individual previously intended to spend the refund). Note, however, that the “default” in this study consisted of a mere statement on a form with the option to opt out. *Id.* at 17-18. In such a case, the line between the use of such a “default” and active choosing is relatively thin.

<sup>118</sup> See *supra* note 83 and accompanying text.

<sup>119</sup> I am grateful to Eric Johnson for pressing this point.

an important safeguard against ill-chosen defaults but also a serious obstacle to public-interested efforts to use defaults to produce desirable social change.

The problem of such an obstacle is not hypothetical. Consider the regulatory effort in 2010 by the Federal Reserve Board to protect consumers from bank overdraft fees.<sup>120</sup> The regulation forbids banks from charging a fee for overdrafts from checking accounts unless the accountholder has explicitly enrolled in the bank's overdraft program.<sup>121</sup> One of the goals of the nonenrollment default rule is to protect customers, and especially low-income customers, from ending up taking the equivalent of extraordinarily high interest loans—indeed, loans with interest rates of up to 7000%.<sup>122</sup> In principle, the regulation should have had a large effect, and an understanding of the power of default rules helped to motivate promulgation of that regulation. But the available evidence suggests that the effect may well be modest because people are opting into the program, and thus rejecting the nonenrollment default, in large numbers.

What explains this modest effect? As Lauren Willis shows in an important and illuminating article,<sup>123</sup> a central reason is that banks much dislike the regulation, want to be able to charge overdraft fees, and hence use a number of tools to facilitate opt-out. They have taken steps to make opt-out as easy as possible—for example, simply by pushing a button on an ATM.<sup>124</sup> They have also engaged in active marketing and created economic incentives to persuade people to opt out.<sup>125</sup> Showing an implicit (or perhaps even explicit) understanding of behavioral economics, they exploit loss aversion and consumer confusion to encourage account holders to think that they will lose money if they do not opt out.<sup>126</sup> Consider the following excerpt from one bank's marketing materials, explicitly enlisting loss aversion:

Yes: Keep my account working the same with Shareplus ATM and debit card overdraft coverage.

No: Change my account to remove Shareplus ATM and debit card overdraft coverage.<sup>127</sup>

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<sup>120</sup> Requirements for Overdraft Services, 45 § C.F.R. 205.17 (2010).

<sup>121</sup> See Lauren E. Willis, *When Nudges Fail: Slippery Defaults*, 80 U. CHI. L. REV. 1155, 1174-75 (explaining the regulation).

<sup>122</sup> *Id.*

<sup>123</sup> *Id.* at 1186-87.

<sup>124</sup> *Id.* at 1187.

<sup>125</sup> *Id.* at 1188.

<sup>126</sup> *Id.* at 1189-91.

<sup>127</sup> *Id.* at 1192.

As one bank employee explained, “People are scared of change so they’ll opt in [to overdraft] to avoid change.”<sup>128</sup> There is a large contrast here with the retirement context, where providers enthusiastically endorse automatic enrollment.<sup>129</sup> The general lesson is that if regulated institutions are strongly opposed to the default rule and have easy access to their customers, they may well be able to use a variety of strategies, including behavioral ones, to encourage people to move in their preferred directions. In some circumstances, it may be necessary to take further steps to make the default rule sticky, if ensuring that it sticks is indeed the goal.

### III. A PUZZLE FOR CHOICE ARCHITECTS: WHICH DEFAULT RULE?

We have seen enough to know that in many domains, choice architects can achieve desirable goals—and do so while maintaining freedom of choice and at low cost—by selecting good default rules and by avoiding harmful ones. But which default rule should choice architects select?<sup>130</sup> How do we know which is good and which is harmful? My narrow focus in this section is on choice architects who work for the public sector, in the capacity of regulators or judges. Selection of default rules by the private sector raises different questions, though some of the suggestions here bear on the choice of such rules by nongovernmental actors as well.<sup>131</sup>

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<sup>128</sup> *Id.*

<sup>129</sup> See, e.g., *Automatic Enrollment*, NATIONWIDE, <http://www.nationwide.com/automatic-enrollment.jsp> (last visited Oct. 28, 2013) (noting that “the Pension Protection Act of 2006 made provisions for companies to automatically enroll [their] employees in[to] defined-contribution [retirement] plans”); see also Willis, *supra* note 121 (discussing the potential ineffectiveness of defaults).

<sup>130</sup> See THALER & SUNSTEIN, *supra* note 12, at 83-100 (discussing various factors that choice architects should consider when crafting defaults).

<sup>131</sup> In a well-functioning market, competitive pressures should lead to optimal default rules if choice architects are attempting to maximize profits. If companies select default rules that harm consumers, they should soon find themselves with fewer consumers. Under optimistic assumptions, the profit motive should therefore be sufficient to produce good default rules; armed with an understanding of when and why default rules stick, companies should act consistently with that motive. On the other hand, competitive pressures may, under plausible assumptions, lead to harmful rather than helpful default rules, at least in certain markets. See OREN BAR-GILL, *SEDUCTION BY CONTRACT: LAW, ECONOMICS AND PSYCHOLOGY IN CONSUMER MARKETS* 6-8 (2012) (exploring behavior market failures). In addition, some companies pursue social welfare goals that do not involve maximizing profits, which may bear on their selection of default rules. Cf. Aneel Karnani, *The Case Against Corporate Social Responsibility*, WALL ST. J. (June 14, 2012), <http://online.wsj.com/article/SB10001424052748703338004575230112664504890.html> (arguing that companies only pursue social welfare goals where this pursuit maximizes profits).

### A. *The Informed-Chooser Default*

If default rules are to be chosen by reference to the most basic social commitments, we could imagine a number of possible answers.<sup>132</sup> Some people might think that the best approach promotes economic efficiency. Others might believe that we should choose default rules that are most fair or just. Still others might believe that choice architects should decide which rules would maximize social welfare and choose accordingly.<sup>133</sup>

#### 1. The Central Idea

Begin with the standard case in which there are no (or modest) third-party effects. I propose that we might bracket the deepest questions and obtain an “incompletely theorized agreement” on a preferred approach—that is, an agreement that can attract support from people with diverse foundational commitments, and from those who are not sure about which commitments they believe to be foundational.<sup>134</sup> The preferred approach is *to select the default rule that reflects what most people would choose if they were adequately informed*.<sup>135</sup> Call this the “informed-chooser default.” The advantage of this approach is that it should simultaneously appeal, at least in general, to those who focus on efficiency, welfare, autonomy, or fairness.<sup>136</sup> If we know that a particular default rule would place people in the situation that informed people would bargain their way to or select, we have good reason to select that default rule (with the understanding that those who differ from the majority may opt out).

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<sup>132</sup> See, e.g., MATTHEW D. ADLER, *WELL-BEING AND FAIR DISTRIBUTION: BEYOND COST-BENEFIT ANALYSIS* 1-11 (2012) (introducing social welfare functions (SWFs) and arguing that the SWF approach should be used to morally evaluate governmental or other large-scale choices).

<sup>133</sup> See Sunstein, *supra* note 42, at 109 (describing the effect of a default rule on workers' welfare as a “key question” in evaluating a default rule); see also ADLER, *supra* note 132, at 22-32 (discussing the philosophical issues with ranking and structuring outcomes).

<sup>134</sup> See CASS R. SUNSTEIN, *LEGAL REASONING AND POLITICAL CONFLICT* 35 (1996) (exploring incompletely theorized agreements as a way to achieve consensus on outcomes amidst theoretical divisions).

<sup>135</sup> See N. Craig Smith et al., *Smart Defaults: From Hidden Persuaders to Adaptive Helpers* 15-16 (INSEAD, Working Paper No. 2009/03/ISIC, 2009), available at [https://flora.insead.edu/fichiersti\\_wp/inseadwp2009/2009-03.pdf](https://flora.insead.edu/fichiersti_wp/inseadwp2009/2009-03.pdf) (noting that the greatest number benefit when the “default is set to the preference most people would make when faced with making an active choice”).

<sup>136</sup> To be sure, there are some complications. People who are concerned with fairness or distribution may fear that the bargaining power of one side will cause informed people to settle on an unfair agreement, and that a different default rule might be better. For present purposes, I put that point to one side. For a more detailed discussion of this point, see Sunstein, *supra* note 42, at 119-22.

Suppose that we know that eighty percent of people, given a great deal of information, would choose green energy. That is a strong reason to favor automatic enrollment in green energy. One reason is that if informed people would select a particular option, defaulting people into that option is respectful of their autonomy. Another reason is that the informed-chooser default is likely to promote people's welfare. It is also easy to defend on grounds of both efficiency and fairness.

## 2. Doubts

To be sure, the idea of an informed-chooser default raises many questions. First, choice architects may not have enough information to know what approach informed people would choose. It might well be necessary for them to do a great deal of empirical work in order to identify that approach. As we shall see, this is a point in favor of active choosing. If choice architects lack the knowledge that would enable them to select the appropriate default, they might want to ask people instead.

Second, and apart from the empirical challenge, the idea of "informed" choice will sometimes raise hard normative and conceptual problems. As behavioral economists have stressed, people may blunder even if they are well informed.<sup>137</sup> They may, for example, display unrealistic optimism or discount the long term.<sup>138</sup> Their judgments about probability may go wrong.<sup>139</sup> Perhaps those who make such errors can be counted as uninformed, but this claim is a bit of a cheat; people may err even if they have all relevant information. If informed people are subject to biases, choice architects may not want to base default rules on their choices.

At the same time, there is a serious risk in any effort to develop the idea of an informed chooser by attempting to correct such biases. The risk is that choice architects will not really be deciding what choosers want, but instead relying on what they believe to be right—in which case the choosers, as agents, do not seem particularly important. To avoid that risk, choice architects should probably rely on what informed choosers actually do, while acknowledging that if their choices can really be shown to be opposed to their interests (perhaps because of a behavioral bias), then it might make sense to depart from those choices.

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<sup>137</sup> See Sunstein, *supra* note 14, at 1830-31.

<sup>138</sup> *Id.* at 1831 (describing the frequently incorrect predictions that people make regarding future benefits).

<sup>139</sup> See THALER & SUNSTEIN, *supra* note 12, at 33 (noting that pervasive optimism may prevent people from taking "sensible preventive steps").

It is also important to emphasize that in a setting that involves bargaining and negotiation, it may be especially difficult to know what informed people would choose, and a default rule that seems to favor one side may not be the provision to which informed people would bargain. For example, informed workers and informed employers may not bargain their way toward a “good cause” provision for the termination of employment if the consequence of that provision would be to impose high costs on employers (and eventually on employees) without providing important or meaningful safeguards for workers. Informed customers and energy companies may refuse to bargain their way to a particular “green” default if it turns out to impose much higher costs.<sup>140</sup> (Of course, the existence of third party effects, taken up below, may argue in favor of green defaults.<sup>141</sup>)

On all of these counts, actual evidence—about what informed choosers do—is extremely important. It would be useful to assemble information about the level of opt-out under various alternatives.<sup>142</sup> And indeed, selection of a default rule might well be preceded by a period of active choosing as a way of assembling that information. Perhaps experiments or pilot programs would provide such information. If only two percent of people opt out under *A*, and fifty percent opt out under *B*, we have reason to believe that *A* is better.

Of course, it is possible that majority rule is too crude. Suppose that there are two default rules, *A* and *B*. Suppose that fifty-five percent of informed people would be relatively indifferent between *A* and *B*, but would slightly prefer *A*. Suppose too that because of their unusual situation, forty-five percent of people would strongly prefer *B*. We should probably select *B* because almost half of the population would very much like it and the (narrow) majority would care only a little bit. The example shows that it is important to ask not only about which approach would be preferred by informed people, but also about the intensity of their preferences.

### 3. Intensity and Opt-Out

To be sure, there is a wrinkle here. If people have intense preferences, they are more likely to opt out, and hence we might not want those with intense preferences to have a large role in setting the default rule—because, for them, that rule will not stick in any case. As we have seen, clear and

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<sup>140</sup> Sunstein & Reisch, *supra* note 4, at 17-18 (noting that consumers tend to choose less expensive green energy options).

<sup>141</sup> *Id.*

<sup>142</sup> *Id.* at 16-17 (raising the possibility of “experiments or pilot programs” to collect such information).

intense contrary preferences are the essential reason that default rules do not stick—and for those with weak preferences, such rules will stick even if they would not prefer it. For this reason, it would be possible to suggest that we should simply use majority rule, even or perhaps especially in the face of strong contrary preferences. But this suggestion raises a further question, which is whether in the particular context, we really do have reason for confidence that those with strong preferences will switch. They may not do so if for them, inertia is a powerful force, or if any kind of effort tax proves decisive, or if their otherwise strong preferences are affected by the suggestion implicit in the default rule.

The most natural way to think of the choice is in terms of costs and benefits.<sup>143</sup> If a default rule turned out to stick, what would be the costs and what would be the benefits?<sup>144</sup> In the example just given, there is a good argument that default rule *B* would be best. We could easily imagine cases in which the choice architect would seek “tailored” default rules, suitable to particular people and settings, in a way that greatly overlaps with the idea of personalized defaults.<sup>145</sup> We could easily imagine cases in which the choice among possible default rules is hard, and in such cases, active choosing might be better; I will return to this point.<sup>146</sup>

Note, however, that the question of marital names suggests an interesting qualification to the idea that the default rule should track the choices of informed people. Taken seriously, that idea would suggest that states should presume that men want to keep their premarital surnames and that women want to change their surnames to those of their husbands. But a default rule of this kind would be discriminatory, and it would almost certainly be found unconstitutional.<sup>147</sup> The example shows that in some settings, informed choices lack authority if they run afoul of important social commitments, at least if government proposes to use those choices as a basis for policy.<sup>148</sup>

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<sup>143</sup> See, e.g., Johnson & Goldstein, *supra* note 5, at 1339 (discussing the tradeoff between the benefit of saving lives and the potential physical, cognitive, and emotional costs imposed on those opting out of various organ donation default rules).

<sup>144</sup> Distributional issues may of course matter as well. See ADLER, *supra* note 132, at 108 (discussing the use of distributive weights in governmental decision procedures); Sunstein, *supra* note 42, at 126-27 (discussing potential distributional gains from different default rules).

<sup>145</sup> See Ayres & Gertner, *supra* note 22, at 91-92 (discussing the difference between tailored and untailored default rules).

<sup>146</sup> See *infra* Section VI.B.

<sup>147</sup> Cf. Emens, *supra* note 102, at 834-36 (discussing how setting legal defaults for marital name changes that are different for men and for women raises constitutional problems).

<sup>148</sup> The domain of marital names overlaps in this regard with that of racially based adoption policies. See R. Richard Banks, *The Color of Desire: Fulfilling Adoptive Parents' Racial Preferences Through Discriminatory State Action*, 107 YALE L.J. 875, 877-82 (1998) (discussing deeply divided views over “race matching” in adoptions).

*B. Penalty Defaults*

If choice architects do not know which rule would be chosen by informed people, standard contract theory suggests that they might favor a “penalty default,” designed to elicit that information.<sup>149</sup> Under this approach, the law (or some other actor) would place the burden of change on the party who is most likely to seek change, if change is desirable. Instead of tracking people’s informed choices, this approach attempts to figure out what those choices are, by using a default rule that penalizes people who do not reveal those choices.

For example, employees sometimes lack information about their legal rights, showing unrealistic optimism.<sup>150</sup> A default rule that gives certain rights to employees might increase the flow of information between the parties and to the legal system.<sup>151</sup> Suppose that if the default rule confers certain rights on employees—say, to job security—employers will want to “buy” those rights. If this is the case, we will see a system in which certain information is disclosed to employees, simply as part of the process by which employers bargain. A default rule that protects workers might give them important information when they would otherwise overestimate their legal rights.

If there are third-party effects, of course the assessment of default rules will be affected. The issue is no longer limited to the welfare of choosers. Suppose that under default rule *A*, significant costs are imposed on third parties, but that under default rule *B*, those costs are avoided. If so, *B* is clearly preferable. In the case of default rules for organ donations and energy, this possibility is not hypothetical. A default rule in favor of organ donation would of course produce significant benefits for third parties; the reason for such a default is not to protect choosers, but to protect those who would benefit from an increase in the number of available organs.<sup>152</sup> In addition, we could easily imagine energy choices that would impose lower

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<sup>149</sup> See Ayres & Gertner, *supra* note 22, at 91-95 (explaining that penalty defaults reveal information because they are purposefully set at what parties do not want, and providing ways to analyze the efficiency of penalty defaults).

<sup>150</sup> See RICHARD B. FREEMAN & JOEL ROGERS, *WHAT WORKERS WANT* 118-22 (1999) (finding, in a survey of individuals in the work force, that these individuals frequently overstated the protections available in the workplace).

<sup>151</sup> See Issacharoff, *supra* note 23, at 1792-94 (arguing for penalty default rules that would increase information sharing).

<sup>152</sup> THALER & SUNSTEIN, *supra* note 12, at 177-84 (highlighting the influence of default rules on organ donation rates, but suggesting that mandated active choosing would be more appropriate given the sensitivity of the matter).

environmental and other costs; green defaults might be justifiable on that ground.

In such cases, there is a strong argument for preferring the default rule that reduces those costs. The selection of the default rule should be based on an analysis of all relevant benefits and costs (capaciously understood), and choice architects should select the approach that maximizes net benefits (understood to include the range of ingredients in social welfare). And if third-party effects are large, we might not be in the domain of mere default rules. If a particular approach prevents the imposition of serious costs on third parties, then there is a strong argument that it should be a mandate, not subject to opt-out. But we could imagine cases in which the existence and magnitude of third-party effects is disputed, and in such (admittedly unusual) cases, the best approach might be a default rule that prevents such effects.

As in the case of informed-chooser defaults, net-benefits defaults may not be easy to identify. In the case of energy providers, for example, choice architects might have to consider not only the costs of service, but also environmental costs, perhaps including the costs of greenhouse gas emissions, which would require assessment of the social cost of carbon.<sup>153</sup> The overall assessment may present formidable challenges. Unlike in cases where the question is the welfare of choosers, moreover, active choosing would not be a way out of the dilemma because it would likely result in disregard of the interests of third parties.<sup>154</sup>

#### IV. BAD DEFAULTS

Default rules can of course be badly chosen or misused by private and public institutions alike. In fact some such rules can be extremely harmful. Imagine, for example, a voting system that says that if you do nothing, your vote will be registered as favoring the incumbent—but that you can opt out if you like. Or imagine a nation that defaults you into a certain political party or religion—but that allows you to opt out. Or a rental car company that defaults you into all sorts of insurance policies and payment plans that are essentially a waste of money—but that allows you to opt out.

Fortunately, market forces constrain at least some of the most harmful default rules. Competitive markets impose real limits on bad defaults.

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<sup>153</sup> See, e.g., Sunstein & Reisch, *supra* note 4, at 18 (acknowledging potentially serious empirical challenges in identifying an appropriate default rule in the environmental context).

<sup>154</sup> *Id.* at 17-18 (discussing the impact of externalities on choice architecture and arguing that mandates are appropriate in cases of significant negative externalities).

Before long, customers are not likely to go to companies that choose a series of such defaults. For this reason, many companies choose default rules that are helpful rather than harmful; for example, the default settings for computers and cell phones are generally in the interest of customers. In some cases, however, companies may have an incentive to promote unhelpful defaults, especially when they are dealing with fine print and when the relevant attributes of the product are shrouded and not salient.<sup>155</sup> In credit markets, providers may be helped, not punished, if they exploit behavioral biases such as unrealistic optimism; providers who do not exploit those biases may find themselves at a competitive disadvantage.<sup>156</sup> Serious problems may also arise when there are information asymmetries, or when choice architects can help construct preferences. For example, a company may know what it wants, and consumers may not know what they want, and hence there may be opportunities for deals that are bad from the standpoint of consumers.

Consider in this regard the practice of “negative option marketing.” This practice occurs when people who accept a “free” product are automatically enrolled in a plan or program that carries a monthly fee (unless they explicitly opt out).<sup>157</sup> Customers might, for example, receive a hotel room for free, but as a result they might be enrolled in a program that charges them fifteen dollars per month. The monthly charge might be mentioned quietly and obscurely, if at all, and if it is mentioned, people might be given (quietly) the option to opt out.<sup>158</sup> In some cases, negative option marketing has a most unfortunate effect, which is that it uses a default rule to exploit the tendency toward inertia in a way that can cost people a great deal of money. Customers might not see the monthly bill, or if they see it, they might assume that all is well, and they might not cancel the plan until they have (automatically) paid a great deal. In this case, inertia, and apparently a

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<sup>155</sup> See BAR-GILL, *supra* note 131, at 91-94 (discussing how credit card issuers design complex, multidimensional contracts to exploit consumers’ lower sensitivity to less salient features such as long-term prices).

<sup>156</sup> *Id.* at 95 (noting that credit card issuers worked to find new, less salient price dimensions as consumers became more aware of annual fees and interest rates in the 1990s).

<sup>157</sup> See 16 C.F.R. § 425.1 (2012) (regulating the use of prenotification negative-option plans); FTC, NEGATIVE OPTIONS 2 (2009), available at <http://www.ftc.gov/os/2009/02/Po64202negativeoptionreport.pdf> (describing four types of plans that could be classified as negative-option marketing).

<sup>158</sup> I received a little lesson about this problem when my credit card company graciously offered to provide me with a free three-month subscription to several magazines of my choice. As a result, I found myself subscribing to those magazines, even though I didn’t like them. But many years after the three-month period, I was automatically subscribing for full price. It was not until I faced the prospect of government employment, and the resulting salary cut, that I cancelled my subscriptions.

kind of “effort tax,” are working against customers’ interests, and companies are aware of that fact. In the United States, the Federal Trade Commission has expressed serious concerns about this kind of marketing.<sup>159</sup>

It is easy to imagine both private and public analogues. Inertia, endorsement, and loss aversion might ensure that default rules stick, at least to some extent, even if they are not in people’s interests. Consider, for example, an automatic enrollment policy that puts an unreasonably large percentage of employees’ salaries into savings, or that enrolls them in a health insurance plan that is a bad deal for their circumstances, or that signs them up for an exercise plan that they do not need, do not use, and perhaps hate. Automatic enrollment can be a waste or even a disaster.

Lest this point be misunderstood, recall that the risk, important and troubling though it is, does not argue against default rules in general. We cannot do without them. (Active choosing is a qualification, to be discussed very shortly.) The question is which ones are best, not whether to have one. And for reasons discussed above, the risk should not be overstated. We have seen that extreme defaults do not stick when and because people have preferences that are independent of the default rule, and are willing to expend effort to set things right. Nonetheless, harmful defaults can and do impose significant burdens and costs, not least because inertia may not be so easy to overcome, and many consumers may think that they were chosen for a good and legitimate reason. Recall in particular that low-income people are, in certain circumstances at least, especially unlikely to opt out—a finding that suggests that default rules may prove especially harmful to people who can least afford to be harmed.

To evaluate the use of automatic enrollment, the particular circumstances certainly matter. If automatic enrollment is not made clear and transparent to those who are enrolled, it can be considered a form of manipulation. The problem is worse if it is not in people’s long-term interest.

## V. ACTIVE CHOOSING

The discussion thus far suggests a number of potential problems with impersonal default rules.<sup>160</sup> A distinctive approach, responsive to those problems and sometimes worth serious consideration, is this: *Avoid any*

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<sup>159</sup> See FTC, *supra* note 157, at 5 (discussing the various problems posed by negative option marketing).

<sup>160</sup> See also Brown et al., *supra* note 63, at 29 (concluding that impersonal defaults could be troubling in complex and high-stakes situations and could lead to regret and welfare loss).

*default rule and call for active choices.*<sup>161</sup> Those who greatly distrust private or public institutions, and who want to avoid any kind of steering by them, will have considerable interest in active choices. They will want to reject default rules of any kind and put the key questions to people themselves. As we shall see, this approach has special advantages in the face of heterogeneity—especially if default rules would otherwise be impersonal.

Note that active choosing comes in two varieties: optional and required. When people visit a grocery store or shop for cell phones or sneakers, they make an active choice, but they can leave the store immediately without any kind of adverse effect; no sanction is imposed if they fail to make a selection. If, by contrast, people are told that they cannot receive a driver's license without saying whether they want to be organ donors, an active choice is essentially required. Admittedly, the line between optional and required active choosing is not clear; in all cases, something happens if one does not make an active choice (for example, no groceries and no cell phone). My focus here is on required active choosing.

#### A. *Life Without Defaults?*

##### 1. The Basic Idea

With active choices, people are required to make an actual decision among the various options; they are not defaulted into any particular alternative. With respect to healthcare, privacy, organ donation, and savings, for example, choice architects might reject both opt-out and opt-in and simply require people to indicate their preferences. It is worthwhile to underline the potential advantages of active choosing in nations and cultures in which certain issues (such as organ donation) are highly sensitive, and in which people would greatly resist the idea of being defaulted into outcomes that they might believe to be intrusive or offensive.

I shall have a fair bit to say in support of active choosing, but we should note three important complications at the outset. First, what does it mean to “require” people to indicate their preferences? Those who insist on the inevitability of default rules will object that there is no good answer to this question. Even if choice architects seek to promote active choosing, they have to specify what happens if *people simply refuse to choose*. Isn't the answer some kind of default rule?

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<sup>161</sup> See, e.g., Carroll et al., *supra* note 62, at 1641-43 (describing an experiment involving an “active decision regime” in which employees were required to make active choices regarding their 401(k) retirement plans).

The question is a good one, because some kind of default rule is ultimately necessary. For defenders of active choosing, the best response is that when active choosing is required, choice architects implement it through a sanction that is so severe that it is the functional equivalent of a mandate. For example, a state might say that unless people indicate whether they want to be organ donors, they cannot receive their driver's licenses. Or an employer might say that unless employees indicate their preferences for a retirement plan or for health insurance, they cannot begin to work. It remains true that people can simply refuse, in which case a default rule does apply (nonenrollment); but this point need not greatly disturb those who believe in active choosing.

The second complication, and an especially interesting one, is that some people do or would prefer not to choose. In that sense, active choosing is itself a nudge, a form of libertarian paternalism, and not a refusal to engage in the whole project. Some choosers undoubtedly have a second-order preference not to choose, and active choosing overrides that preference. It calls for choosing even in circumstances in which choosers, faced with the option, would choose not to choose. Those who prefer active choosing are not avoiding nudges; they are nudging those who do not want to choose. They are not avoiding libertarian paternalism; they are engaging in it. One form of libertarian paternalism favors choosing, and advocates of that form of libertarian paternalism will steer people in favor of active choice—an approach that embeds a form of paternalism insofar as some people would prefer not to choose. As we will see, however, advocates of active choosing might be able to contend that these claims miss their central points, and they do have some good reasons in favor of their preferred approach.

The third complication is that while active choosing is designed to elicit people's preferences, and to do so in a neutral fashion, the very decision to require active choosing might contain a "signal," and that signal might affect choosers. Suppose, for example, that the default rule has been nonenrollment in an organ donation plan, and that in order to promote organ donation, a state shifts to active choosing. We can imagine three potential outcomes. First, people might now simply indicate their preferences; they might be genuinely unaffected by the signal. Second, the shift might signal the state's view that organ donation is a good idea—and hence the organ donation rate might increase because people receive, and trust, that signal. Third, the signal might indicate the state's view that organ donation is a good idea, and people might receive, and distrust, that signal, thus reducing participation below the level that was seen with a

nonenrollment default. We could imagine any of these three outcomes, depending on the strength of the signal and people's reactions to it.

Notwithstanding these points, inertia matters, and it is reasonable to speculate that active choosing would usually produce higher participation rates than an opt-in system but lower than an opt-out system. The speculation is supported by what we currently know. For example, active choosing has been found to result in far higher levels of savings than default rules that require people to opt in (but lower than in the case of automatic enrollment).<sup>162</sup> Or return to the question of privacy. Most web browsers currently default people into a situation in which their movements are visible and can be tracked. Another possibility would be to ask customers—either the first time they open the browser or periodically—about the privacy setting that they prefer, and perhaps to prevent them from proceeding until they answer. A reasonable guess is that this approach would produce more privacy than they currently enjoy.<sup>163</sup>

## 2. Active, but Influenced, Choosing

It is also possible to imagine a host of variations on active choosing. We could even identify a continuum of approaches from the most neutral form of active choosing to forms of active choosing that choice architects self-consciously attempt to influence. For example, active choosing might be “enhanced,” or influenced, in the sense that one of the choices might be highlighted or favored, perhaps through the use of behaviorally informed strategies.<sup>164</sup> If choice architects intend to avoid a default rule but nonetheless want to promote selection of one of the options, they might list it first, or use a bold or large font, or adopt verbal descriptions that make it especially salient or appealing.

In one study, choice was “enhanced” by enlisting loss aversion to discourage selection of the option disfavored by the experimenters.<sup>165</sup> The experimenters introduced several different messages in the following way:

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<sup>162</sup> *Id.* at 1670 (highlighting the results of the 401(k) experiment testing active choice).

<sup>163</sup> Whether that would be desirable is, of course, another question. Recall that information is a public good and individually rational decisions in favor of protecting privacy might produce less information than is desirable. See Johnson et al., *supra* note 48. For some empirical complications, see Willis, *supra* note 121.

<sup>164</sup> See Punam Anand Keller et al., *Enhanced Active Choice: A New Method to Motivate Behavior Change*, 21 J. CONSUMER PSYCHOL. 376, 378 (2011) (arguing that “enhanced active choice,” which communicates the preferred choice by highlighting the losses incumbent in the nonpreferred alternative, will result in more compliance than “basic active choice”).

<sup>165</sup> *Id.* at 379.

We would like you to imagine that you are interested in protecting your health. The Center for Disease Control indicates that a flu shot significantly reduces the risk of getting or passing on the flu virus. Your employer tells you about a hypothetical program that recommends you get a flu shot this Fall and possibly save \$50 off your bi-weekly or monthly health insurance contribution cost.<sup>166</sup>

In the *opt-in condition*, people were asked to “Place a check in the box if you will get a Flu shot this Fall.”<sup>167</sup> In a “neutral active-choice condition,” people were asked to “Place a check in one box: I will get a flu shot this Fall or, I will not get a flu shot this Fall.”<sup>168</sup> With “enhanced or influenced choice,” people were asked to choose between two alternatives: “I will get a Flu Shot this Fall to reduce my risk of getting the flu and I want to save \$50” or “I will not get a Flu Shot this Fall even if it means I may increase my risk of getting the flu and I don’t want to save \$50.”<sup>169</sup> Compared to the opt-in condition, the active-choice condition led to a significant increase in the percentage of people who would get a flu shot; the percentage was highest when active choice was influenced.<sup>170</sup>

There is an obvious parallel here with the efforts of banks to promote opt-out by enlisting loss aversion and other behaviorally informed strategies. The principal point is that active choosing can be more or less neutral with respect to the relevant options. As the choice architect becomes decreasingly neutral, active choosing starts to look closer to a default rule.

### B. *In Favor of Active Choosing*

Let us put the question of influence to one side and assume that if choice architects favor active choosing, they will remain neutral and not attempt to affect the choice. What might be said on behalf of this approach?<sup>171</sup>

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<sup>166</sup> *Id.*

<sup>167</sup> *Id.*

<sup>168</sup> *Id.*

<sup>169</sup> *Id.*

<sup>170</sup> *Id.*

<sup>171</sup> A growing literature explores, or has implications for, the topic of active choosing. See Carroll et al., *supra* note 62, at 1670-72 (asserting that an active decision framework may be particularly attractive in 401(k) enrollment); see also Bruce Carlin et al., *Libertarian Paternalism, Information Sharing, and Financial Decision-Making* 5 (Mar. 12, 2013) (unpublished manuscript), available at <http://faculty.haas.berkeley.edu/manso/liberty.pdf> (arguing for a judicious use of libertarian paternalism so as not to stifle social learning and the development of self-corrective behavior).

### 1. Overcoming Inertia

Because a decision is required, active choosing overcomes inertia. If inertia and procrastination are playing a significant role, active choosing may be far better than opt-in. Active choosing requires people to incur effort costs that might otherwise lead them to focus on other matters. Consider savings plans, health insurance, and privacy settings. The problem with opt-in in those situations is that it will likely ensure that some people end up with outcomes that they would not prefer if they were to make a choice. A key virtue of active choosing is that it increases the likelihood that people will end up with their desired outcomes.

### 2. Overcoming Error-Prone or Nefarious-Choice Architects

I have noted that active choosing is a safeguard against uninformed or self-interested choice architects. When choice architects lack relevant information, so that the chosen rule might be harmful to some or many, there are significant advantages to active choosing. Suppose that a private institution is producing the default rule, and it really does not know a great deal about what informed people would choose. In the context of ice cream flavors, tablets, cell phones, and sneakers, people tend to know what they like, and while advice may be welcome, active choosing is far better than an impersonal default rule. The same is true for many activities and goods provided by private institutions. Market pressures can lead such institutions to a good mix of default rules and active choosing that fits the desires of diverse customers.

Or suppose that the government is producing the default rule. If public officials are biased or inadequately informed, and if the default rule is no better than a guess, that rule might lead people in the wrong direction. Followers of Friedrich Hayek, emphasizing “the knowledge problem,”<sup>172</sup> assert that public officials will inevitably know less than participants in the market do.<sup>173</sup> An appreciation of the knowledge problem might well argue in favor of active choosing. The same point argues against a default rule, and in favor of active choosing, when self-interested private groups are calling for government to select it even though it would not benefit those on whom it is imposed. Active choosing is much less risky on these counts. If we do not

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<sup>172</sup> See Hayek, *supra* note 30, at 519-20 (emphasizing local and decentralized information).

<sup>173</sup> See, e.g., L. Lynne Kiesling, *Knowledge Problem* (manuscript at 15-16), available at <http://papers.ssrn.com/id=2001633> (arguing that “made” institutions, those created through administrative or legislative procedure, may actually exacerbate the knowledge problem), in *Oxford Encyclopedia of Austrian Economics* (Peter Boettke & Christopher Coyne eds.) (forthcoming 2013).

trust public officials—perhaps because they do not know everything, perhaps because their motivations may not be pure—we might like active choosing best.<sup>174</sup>

### 3. Learning and Development of Preferences

Active choosing promotes learning and thus the development of preferences. Choice architects might know that a certain outcome is in the interest of most people, but they might also believe that it is independently important for people to learn about the underlying questions so that they can use the “stock” of what they learn to make choices in multiple areas in the future. In the context of financial decisions, it may be valuable for people to develop the kinds of understandings that will enable them to choose well for themselves. We could easily imagine a kind of science fiction, envisioning a Brave New World in which people are defaulted into a large number of good outcomes but are thereby deprived of agency and learning. If some people fear that nudging and default rules threaten to infantilize people, the underlying concern may be here. And while the objection should not be overstated, there are certainly domains in which learning is important and active choosing is necessary to promote it.

### 4. Accommodating Changes over Time

Impersonal default rules are usually static, and if situations change over time, such rules might become suboptimal even if they were sensible when originally imposed.<sup>175</sup> By contrast, active choosing could be designed in such a way as to require periodic revelation of a chooser’s preferences. In theory, of course, impersonal default rules could also change over time to become less impersonal (as a result of learning by choice architects). But even if so, they might less accurately reflect a chooser’s preference than would active choosing.

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<sup>174</sup> See REBONATO, *supra* note 16, at 221-26 (questioning whether the government can act as a “benevolent nudger”).

<sup>175</sup> See, e.g., James J. Choi et al., *Defined Contribution Pensions: Plan Rules, Participant Decisions, and the Path of Least Resistance*, 16 TAX POL’Y & ECON. 67, 70 (2002) (finding that in the case of savings plans, employees followed the plan of least resistance and did not opt out even when they had the opportunity to do so).

### 5. Paternalism and Its Discontents

Defenders of default rules favor nudges, or libertarian paternalism; they seek to maintain freedom of choice.<sup>176</sup> They contend that if we bracket the possibility of active choosing, a default rule is inevitable, and hence a form of paternalism is inevitable as well. As we have seen, they add that active choosing itself involves nudging, and therefore a form of libertarian paternalism. These points seem convincing, but active choosing is indeed different from default rules in the important sense that with such rules, nothing happens unless choosers affirmatively indicate their wishes.<sup>177</sup> If we reject paternalism—perhaps because of distrust of choice architects, perhaps because of a commitment to learning, perhaps because of a belief that individual choice is a good in itself—then active choosing will seem quite appealing.

In addition, there appears to be an asymmetry in public perceptions, and the asymmetry may argue on behalf of active choosing. In particular, people appear to see automatic enrollment as paternalistic and as requiring special justification; by contrast, they see automatic nonenrollment as not paternalistic and as requiring no such justification.<sup>178</sup> Indeed, they tend to see active choosing and nonenrollment as equally nonpaternalistic.<sup>179</sup> These findings are closely associated with the finding that people understand automatic enrollment as a signal that choice architects endorse enrollment, even though they do not view automatic nonenrollment as a signal that choice architects favor nonenrollment.

By themselves, these points are hardly decisive objections to automatic enrollment. But if choice architects are concerned about public reactions, and in particular about objections to paternalism, they might favor active choosing for that reason.

### 6. Heterogeneity

Finally, active choosing appropriately handles diversity. As compared with either opt-in or opt-out systems, active choosing can have major advantages when the relevant group is heterogeneous, so that a single approach is unlikely to fit diverse circumstances. If one size does not fit all

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<sup>176</sup> See THALER & SUNSTEIN, *supra* note 12, at 5 (arguing that libertarian paternalism is “liberty preserving”).

<sup>177</sup> Of course it is also true that some background sanction must be in place to “require” active choosing, and some kind of default rule must attach if people simply refuse to choose.

<sup>178</sup> Tannenbaum & Ditto, *supra* note 83, at 7-8.

<sup>179</sup> *Id.*

for health insurance or savings plans, then choice architects might want to ensure that people make choices on their own. For this reason, active choosing may be far better. In the face of diversity, an impersonal default rule may be especially harmful, because the power of inertia, or the force of suggestion, may mean that many people will end up in a situation that is not in their interest. People might be far better off if they are asked, “What health insurance plan do you like best?” than if they are automatically enrolled in a plan chosen by their employer.

### C. *Against Active Choosing*

Notwithstanding its potential benefits, active choosing could also create serious problems, and it is hardly the right approach in all situations. To see why, consider the words of Esther Duflo, one of the world’s leading experts on poverty:

[W]e tend to be patronizing about the poor in a very specific sense, which is that we tend to think, “Why don’t they take more responsibility for their lives?” And what we are forgetting is that the richer you are the less responsibility you need to take for your own life because everything is taken care for you. And the poorer you are the more you have to be responsible for everything about your life. . . . [S]top berating people for not being responsible and start to think of ways instead of providing the poor with the luxury that we all have, which is that a lot of decisions are taken for us. If we do nothing, we are on the right track. For most of the poor, if they do nothing, they are on the wrong track.<sup>180</sup>

Duflo’s central claim is that people who are well off do not have to be responsible for a wide range of things, because others are making the relevant decisions for their benefit. In countless domains, choices are in fact “taken for us.” Such steps not only increase our welfare but also promote our autonomy, because our time is freed up to spend on other matters.<sup>181</sup> We do not have to decide how and whether to make water safe to drink or air safe to breathe; we do not have to decide how to build roads and refrigerators and airplanes; the alphabet is given to us, not chosen by us. It is true and important that we may participate in numerous decisions through

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<sup>180</sup> Susan Parker, *Esther Duflo Explains Why She Believes Randomized Controlled Trials Are So Vital*, THE CTR. FOR EFFECTIVE PHILANTHROPY BLOG (June 23, 2011), <http://www.effectivephilanthropy.org/blog/2011/06/esther-duflo-explains-why-she-believes-randomized-controlled-trials-are-so-vital>.

<sup>181</sup> See Shah et al., *supra* note 32, at 684-85 (describing how scarcity conditions draw attention to immediate needs, often hindering more efficient planning).

politics and markets. But often we rely on the fact that choices are made by others, and we go about our business without troubling ourselves about them. This is a blessing, not a curse.

These points suggest an initial problem with active choosing, which is that it can impose large burdens on choosers. That burden may in fact be quite unwelcome. Suppose that the situation is unfamiliar and complicated. Suppose that people lack information or experience. If so, active choosing may impose unjustified or excessive costs on people; it might produce frustration and appear to require pointless red tape. Most consumers would not much like it if, at the time of purchase, they had to choose every feature of their cell phone plan or all of their computer's initial settings. The existence of defaults saves people a lot of time, and most of these defaults may well be sensible and suitable. Few consumers would like to spend the time required to obtain relevant information and to decide what choice to make. As compared to a default rule, active choosing increases the costs of decisions, possibly significantly.

At the same time, active choosing can impose large burdens on providers of goods or services. For them, defaults can be desirable and even important because it allows them to avoid costs, which might result in increases in prices (and thus harm consumers as well). Without a series of default rules, significant resources might have to be devoted to patient, tedious explanations and to going through the various options with consumers or users, who might not welcome the exercise. The experience of buying a cell phone or a laptop might be horrific if active choosing were required for many product characteristics. We could easily imagine a bit of science fiction, or perhaps a situation comedy, that makes this point especially vivid.

A final point is that active choosing can increase errors. The goal of active choosing is to make people better off by overcoming the potential mistakes of choice architects. But if the area is unfamiliar, highly technical, and confusing, active choosing might have the opposite effect. If consumers are required to answer a set of technical questions, and if the choice architects know what they are doing, then people will probably enjoy better outcomes with defaults. Perhaps it would be best to rely on experiments or pilot studies that elicit choices from informed people, and then to use those choices to build defaults. But if choice architects have technical expertise, and are trustworthy, there is a question whether this exercise would be worthwhile.

## VI. PERSONALIZED DEFAULT RULES

My focus thus far has been on default rules that are impersonal in the sense that they apply to all members of the relevant population, subject to the ability to opt-out. But as I have noted, some default rules are highly personalized. Such approaches draw on available information about which approach best suits different groups of people, and potentially each individual person, in the relevant population.

A. *The Best of Both Worlds?*

We could imagine a continuum of personalized approaches, from the most fine-grained to the far more crude. In principle, choice architects could design default rules for every one of us. Perhaps this idea seems far-fetched, but in the fullness of time, private and public institutions are likely to use a large number of personalized default rules. In fact we are already heading in that direction. Smartphone data, for example, can be (and has been) mined to ascertain personality traits, and those traits can in turn be used to personalize services on smartphones.<sup>182</sup> We can easily imagine the use of website browsing data to personalize a range of services and default options. Google already does something quite like this. In many contexts, it will be possible to move from active choosing to personalized default rules, as choice architects build such defaults for individuals on the basis of what they have actively chosen in the past.

In their ideal form, personalized default rules might be thought to produce the best of both worlds. Like impersonal default rules, they reduce the burdens of decision and simplify life. But like active choosing, they promote individualization and increase accuracy by overcoming the many problems associated with one-size-fits-all approaches.

Of course the idea of personalized default rules raises serious concerns. Some of these involve narrowing one's horizons; others involve personal privacy. I shall turn to those concerns in due course. But at least in some contexts, the design of such personalized rules would be a great boon. The key advantage of such rules is that they are likely to be more fine-grained and thus beneficial than "mass" default rules.<sup>183</sup> As technology evolves and

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<sup>182</sup> See generally Gokul Chittaranjan et al., Mining Large-Scale Smartphone Data for Personality Studies (Oct. 14, 2011) (unpublished manuscript), available at [http://publications.idiap.ch/downloads/papers/2011/Chittaranjan\\_PUC\\_2012.pdf](http://publications.idiap.ch/downloads/papers/2011/Chittaranjan_PUC_2012.pdf) (analyzing the relationship between behavioral characteristics derived from smartphone data and certain self-reported personality traits).

<sup>183</sup> See Johnson & Goldstein, *supra* note 6, at 423-24 (contrasting persistent and smart defaults, two kinds of personalized default rules, with mass defaults).

information accumulates, it should become increasingly possible to produce highly personalized defaults, based on people's own choices and situations. For this reason, there will be promising opportunities to use default rules to promote people's welfare.

Every day, family members and friends use the equivalent of personalized default rules. They tend to know what people like in various domains. With respect to conversation, food, restaurants, vacations, romance, and more, they use those personalized defaults for people's benefit. They do not ask, in every case, for an active choice, which would make life more complicated and potentially even intolerable. Sometimes spouses order for one another at restaurants or select clothing for each other, using the functional equivalent of default rules and pursuant to an implicit delegation.<sup>184</sup> Indeed, a large part of what it means to be a spouse, a partner, or a close friend is to be able to identify personalized defaults. (By contrast, strangers rely on impersonal ones, which may cause big trouble.)

Especially as technology develops, an important function of marketing and marketing research should be to gather knowledge of this kind (subject to safeguards for privacy, taken up below). Indeed, such marketing and research might well become—and now appear to be becoming—standard fare.<sup>185</sup> Similar efforts are being made in the area of political campaigning as well, with something close to the functional equivalent of personalized defaults.<sup>186</sup>

## B. *Not Quite the Best of Both Worlds?*<sup>187</sup>

### 1. Problems

Notwithstanding their many virtues, personalized default rules are not without disadvantages, even if we put privacy to one side. Most obviously, they do not promote learning, and hence they do not promote and may impede the development of (increasingly) informed preferences. Consider the context of health insurance. People might be defaulted into a plan that suits their needs, which seems unobjectionable—but if so, they do not have

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<sup>184</sup> A cautionary note here, at once amusing and sad, suggests that people often make significant mistakes about what their family members and friends like. See JOEL WALDFOGEL, SCROOGENOMICS 29-39 (2009) (highlighting Christmas as a prime example of “inefficient gift giving” to loved ones).

<sup>185</sup> See, e.g., Chittaranjan et al., *supra* note 182, at 4-5 (illustrating the use of a mobile software program to research the personality traits of participants).

<sup>186</sup> See Benedict Carey, *Academic 'Dream Team' Helped Obama's Effort*, N.Y. TIMES, Nov. 13, 2012, at D1 (exploring defaults in the context of voting and politics).

<sup>187</sup> I am grateful to Daniel Tannenbaum for pressing the points in this Section.

the opportunity to learn, which might prove important in the long term. Perhaps it is best to require active choosing, so that people know more about health insurance and about their health care needs. Learning can be important, and active choosing promotes learning while defaults do not.

Or consider the analogy of books and music. We have seen that on the basis of one's past choices, it is possible, indeed easy, to offer advice, or even to suggest defaults, that reflect what one likes. If you have liked books by a certain mystery writer or science fiction writer, there is a good chance that you will like books by other identifiable mystery writers or science fiction writers. If you have liked music by certain singer-songwriters, companies can identify other singer-songwriters whom you will enjoy; this is how Pandora works its magic.<sup>188</sup> But people's preferences change over time, especially if they are able to learn, and if people are defaulted into options that simply reflect their current "likes," such learning will not occur. In multiple domains, serendipity has great value, as people encounter, entirely serendipitously, activities and products that do not in any way reflect their past choices. The problem, in short, is that if defaults are based on such choices, the process of development might be stunted. When your experiences are closely tailored to your past choices, your defaults are personalized, but you will also be far less likely to develop new tastes, preferences, and values.

In the context of communications generally, some people have expressed concern about the risks associated with an "architecture of control," in which people create a kind of "Daily Me"—an informational universe that is entirely self-selected.<sup>189</sup> Imagine, for example, that people are able to use perfect filters, so that they can see and hear what they want and exclude everything else. In some ways, this would be a great boon, and we do appear to be moving in its direction. Now imagine that if producers learn about your past choices, they could, very much in the style of Pandora, provide you with other things that you want to see and hear—so that the method of selection is based on projections from your past choices. This too might be a great boon. But insofar as it ensures a kind of narrowing, and prevents people from expanding their horizons, it is nothing to celebrate. Personalized echo chambers may produce individual and social harm.<sup>190</sup> An "architecture of serendipity" has large advantages.

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<sup>188</sup> Pandora is a free Internet radio that allows users to create stations on the basis of a single song. The station then plays songs with similar characteristics. See <http://www.pandora.com/about>.

<sup>189</sup> CASS R. SUNSTEIN, *REPUBLIC.COM 2.0* 94 (2007) (arguing that this "Daily Me" universe can promote extremism and stifle cooperative behavior).

<sup>190</sup> See generally CASS R. SUNSTEIN, *GOING TO EXTREMES 2* (2008) (explaining that "[w]hen people find themselves in groups of like-minded types, they are especially likely to move to extremes.").

A genuinely extreme case would be a political system with personalized voting defaults, so that people are defaulted into voting for the candidate or party suggested by their previous votes, subject to opt-out. In such a system, people would be presumed to vote consistently with their past votes, to such an extent that they need not show up at the voting booth at all, unless they wanted to indicate a surprising or contrary preference. Such a system would not entirely lack logic. It would certainly reduce the burdens and costs of voting, especially for voters themselves, who could avoid a trip to the polls, assured that the system would register their preferences.

But there is a (devastating) problem with an approach of this kind, which has to do with what might be called the internal morality of voting. The very act of voting is supposed to represent an active choice, in which voters are selecting among particular candidates. In other contexts, there is not an equivalent internal morality, but active choosing is an individual and social good precisely because it promotes learning over time, and thus the development of informed, broadened, and perhaps new preferences.

Personalized default rules have other disadvantages. We have seen that people tend to stick with the default, and this is true whether it is impersonal or personalized. Sticking with the default can lead to feelings of regret. There is empirical support for this proposition: In the context of retirement plans, those who passively stayed with the default showed more regret than those who engaged in active choosing.<sup>191</sup> It is possible that such regret will amount to a significant welfare loss.

In addition, passive choice will, almost by definition, decrease choosers' feelings of identification with the outcome. In part for that reason, any kind of default rule, including a highly personalized one, may not create the kinds of motivation that can come from active choosing. Suppose that choice architects seek to promote healthy behavior. They might use something akin to default rules of certain kinds (involving, for example, portion size and easy availability of certain foods). Such an approach may be effective, but it may not have certain benefits associated with active choosing, such as increased self-monitoring and stronger intrinsic motivations.

A separate objection applies to default rules of all kinds: People may like choosing, and default rules deprive them of something that they like. Consider the experience of ordering from a menu at a restaurant. Some people affirmatively favor a situation in which they receive a number of options and can make their own selections from the list. When people like to choose, there is an argument for active choosing and against any sort of

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<sup>191</sup> Brown et al., *supra* note 63, at 21-22.

default rule. It is natural, and not false, to answer that if they want to choose, they can do so even in the presence of a default. But for many people in many contexts, it is better to be presented with a menu of options, and to be asked for their preference, than to be provided with a default, and to be asked whether they want to depart from it.

## 2. Abstractions and Concrete Cases

These points—about narrowing, regret, chooser identification, and valuing the experience of choice—should not be taken as decisive, certainly not in the abstract. It is one thing to worry about a narrow communications universe; it is quite another thing to worry about a highly personalized retirement plan, or health insurance plan, or credit card plan. In the latter cases, learning may or may not be important, but personalization (so long as it is accurate) does not appear to threaten individual or social harm. Whether narrowing in the form of personalization is a blessing or instead a curse depends on the situation.<sup>192</sup>

We have seen that in many contexts, people would prefer a default. More generally, personalized default rules may have benefits that dwarf the costs, even when the costs are real. While such defaults do not have all of the advantages of actual choice, they have many of them, and at the same time they promise to overcome most of the problems associated with impersonal defaults. Above all, they can handle the problem of heterogeneity, and thus accurately reflect preferences, without imposing the burdens and costs associated with active choosing.<sup>193</sup>

### C. Tracking and Extrapolating

A personalized default might be based on people's own past choices or on those of people "like them." Consider, for example, Amazon.com, which provides recommendations to its customers on the basis of their past

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<sup>192</sup> Note that if the relevant program is designed to promote risk pooling, it makes sense to default everyone into the same risk pool, and under plausible assumptions, to forbid opt-out. By its very nature, a system that is intended to pool risks is unlikely to use default rules, impersonal or personalized.

<sup>193</sup> Special questions might be raised by the potential creation of "personalized prices." Typical price systems name a single price for a good or service, even though people who are subject to that price would be willing to pay widely varying amounts for precisely the same items. Smith might be willing to pay far more than Jones for the same tablet or meal, perhaps because Smith is wealthier or because Smith has stronger preferences. The various questions raised by the possibility of personalized prices deserve a separate discussion.

choices.<sup>194</sup> Amazon.com knows that if customers like books by a certain author, they will probably like books by another author as well. Amazon.com might be thought to have created something in the general vicinity of default rules in the form of visible, salient choices. Of course the presentation of such choices is akin to advice and not literally a default in the sense that if customers do nothing, they will purchase nothing. But the same technologies could easily be used to create defaults of multiple kinds.

Once enough information is available about Smith, choice architects could design default rules for Smith with respect to health insurance, privacy, rental car agreements, computer settings, and so on. For some services, including travel, personalized defaults have become familiar and common. If a website knows where customers like to sit on an airplane, when they like to travel, which airlines they prefer, and how they like to pay, it can use this information to generate outcomes (subject to customer revision).<sup>195</sup> Personalized default rules can also be dynamic, in the sense that they can change over time. In principle they could incorporate new information in real time. The best default rules or settings for a particular person in one year might be very different from those in the next year. The default rules could change on a daily or even hourly basis. As private and public institutions receive increasing amounts of information about each of us, this project is becoming increasingly feasible. Multiple websites are already moving in this direction, providing defaults for people based on their own past choices. In general, those defaults make life simpler and more convenient.<sup>196</sup>

We could imagine a large variety of possibilities here. In some cases, defaults might be based directly on people's own past choices. Return to the travel setting: If you make certain choices in the past, you will be defaulted into the same choices in the future. In other cases, defaults might involve a degree of extrapolation from those choices. Choice architects might think that if people have made certain choices with respect to privacy in the domain of health insurance, they are likely to make certain choices with respect to privacy in other domains as well. Consider the familiar idea that if certain consumers actually like certain products, they may like certain other products as well. If sufficient data is available, personalized default rules might be generated in this way.

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<sup>194</sup> See *Amazon Advertising Preferences*, AMAZON.COM, [http://www.amazon.com/gp/dra/info?ie=UTF8&ref\\_=ya\\_advertising\\_preferences](http://www.amazon.com/gp/dra/info?ie=UTF8&ref_=ya_advertising_preferences) (last visited Oct. 28, 2013).

<sup>195</sup> See Johnson & Goldstein, *supra* note 6, at 424 (explaining that “[a] persistent defaults policy takes as a default that which the person chose last time”).

<sup>196</sup> See Smith et al., *supra* note 135, at 18-20 (discussing how consumer sales or marketing websites can use “smart” and “adaptive” defaults to understand and help serve customers).

*D. Information Acquisition and Privacy*

## 1. Feasibility

With respect to personalized defaults, one challenge involves feasibility. For defaults to be personalized, choice architects must obtain relevant information. In some contexts, obtaining such information is essentially costless. On websites, people make repeated choices, and if choice architects know what they usually choose, they can make that usual choice the default. Return to the case of travel preferences, or consider shipping times and credit cards for book purchases. But in other cases, there will be no such track record, at least at the beginning, and acquisition of relevant information will be costly or perhaps impossible. Suppose, for example, that people are purchasing new computers, and the question is the appropriate privacy setting for them. By hypothesis, choice architects will lack the necessary information. Personalized default rules will not be feasible.

## 2. Privacy

Even if personalization is feasible, there is an additional challenge, which is that if defaults are based on people's past choices, there is a potentially serious concern about privacy. By hypothesis, choice architects can identify people's past choices, and some choosers will not be delighted by that fact. People might well object if others know that they tend to like (say) silly science fiction novels—and that for that reason, they are being defaulted into a wide range of choices favored by people who like such novels.

We might make a distinction here. First, certain choice architects—those who operate relevant programs or websites—might simply know about people's past choices; if people are purchasing goods from them, such knowledge would seem inevitable (though there may be retention issues).<sup>197</sup> Second, and alternatively, the choice architects who are receiving that information as a result of commercial interactions might take the further step of revealing those choices to independent people and providers. On one view, such revelations would facilitate mutually agreeable interactions, but it is easily imaginable that some choosers would object to those revelations. If they object to the latter, sharing of that kind should probably not be

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<sup>197</sup> One safeguard for privacy might include the nonretention of information after a specified period of time. Perhaps people could be asked to indicate their preferences (that is, make an active choice with respect to retention), or perhaps people could be subject to an impersonal (for example, retention unless indicated otherwise, or vice versa) or a personalized default.

permitted—and a prohibition on sharing will make it harder to generate personalized defaults.

There is a potential solution to the privacy problem, which is that choice architects might use, with respect to privacy itself, either (1) active choosing or (2) personalized default rules. Perhaps choice architects should ask Jones explicitly about her preferences with respect to privacy. Or perhaps choice architects know that Jones is fiercely protective of her privacy and that in the face of any kind of doubt, she prefers to prevent other people from knowing about her behavior and her choices. If so, that very knowledge can be used to produce privacy-protective default rules. In the case of doubt, active choosing might be selected so that people do not give up privacy unless they explicitly state their willingness to do so. With respect to privacy, there is a great deal of heterogeneity and a risk of self-interested judgments on the part of choice architects, both of which argue for active choosing.

#### *E. Demographics*

Less ambitiously, personalized default rules might be based on group characteristics, such as geographic or demographic variables.<sup>198</sup> For example, age and income might be used in determining appropriate default rules for retirement plans. In fact, this approach is already standard practice. For example, universities typically default faculty members into what seems to be an appropriate plan (subject of course to an easy out). With respect to employees over sixty, the default allocation might be different from what it would be with respect to employees who are thirty. For those with large incomes, the default might be different from what it would be for those who are making a smaller amount. The general idea is that your default rules would track what would be best for “people like you.”

Evidence suggests that for retirement plans, default rules that respect diversity (especially with respect to age) are indeed feasible, and they can increase the probability of enrollment in the default plan by sixty percent.<sup>199</sup> Default rules can also create very large gains for participants.<sup>200</sup> Life-cycle

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<sup>198</sup> See Johnson & Goldstein, *supra* note 6, at 424 (discussing how and why smart defaults take into account individual measurements like group and location).

<sup>199</sup> See Gopi Shah Goda & Coleen Flaherty Manchester, *Incorporating Employee Heterogeneity into Default Rules for Retirement Plan Selection* 29 (Nat’l Bureau of Econ. Research, Working Paper No. 16099, 2010), available at <http://www.nber.org/papers/w16099> (studying the effects on retirement plan choices when the default plan is altered based on participant age).

<sup>200</sup> See *id.* at 29 (“Substantial welfare gains are possible by varying defaults by observable characteristics.”).

and life-stage funds do exactly this, and they are increasingly common. We could easily imagine similar approaches to health insurance, credit cards, cell phones, mortgages, and much more. Of course, there might be constraints on the use of certain demographic variables—such as race, religion, and gender—if they would run afoul of principles of nondiscrimination.

### CONCLUSION

Whether or not we notice them, default rules are omnipresent. They establish settings for many activities and goods, including cell phones, rental car agreements, computers, savings plans, health insurance, and energy use.<sup>201</sup> In countless domains, they identify the consequences if choosers do nothing. In part because of the power of inertia, default rules tend to stick.

For private and public institutions, a central question is what happens if people do nothing, because nothing is exactly what people may do. Nor should default rules be disparaged. It should go without saying that freedom of choice is exceptionally important, but if people had to make choices about everything that affects their lives, they would end up drowning in an ocean of choices. Default rules of multiple kinds promote welfare because they make people's lives go better; they can also promote autonomy, because they free up time for matters that are more pressing or important (or fun).

To select among impersonal default rules, active choosing, and personalized default rules, a central question involves the costs of decisions and the costs of errors. When the relevant group is not diverse, and when an impersonal default rule will satisfy the informed preferences of the members of that group, it is generally most sensible to select that default rule rather than to require active choosing. And if the underlying issue is complex and unfamiliar, active choosing might be a burden rather than a benefit. If so, the argument for use of a default rule is fortified. But when the group is relevantly diverse, when choosing is actually preferred (perhaps because it is enjoyed and therefore a benefit rather than a cost), when learning is important, or when private or public institutions cannot be trusted or lack good information about which default rule is best, active choosing has significant advantages. It is especially important to emphasize the comparative advantages of active choosing, and the risks of default rules, when choice architects are uninformed or untrustworthy.

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<sup>201</sup> See Steffen Altmann et al., *Abstract to Incentives and Information As Driving Forces of Default Effects* (Apr. 4, 2012) (unpublished manuscript), available at [http://www.ewi-ssl.pitt.edu/econ/files/seminars/120404\\_sem924\\_Steffen%20Altman.pdf](http://www.ewi-ssl.pitt.edu/econ/files/seminars/120404_sem924_Steffen%20Altman.pdf) (providing a valuable theoretical framework for when “decision makers should rationally follow default options instead of making active choices”).

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Personalized default rules have the potential to reduce the problems associated with one-size-fits-all defaults, and thus to provide many of the benefits of active choosing, at least if the relevant choice architects are informed and trustworthy.<sup>202</sup> In many domains, personalized default rules are the wave of the future. We should expect to see a significant increase in personalization as greater information becomes available about the informed choices of diverse people. The coming wave, very much in progress, will create serious risks, but it also promises to make our lives not only easier and simpler but also healthier and longer.

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<sup>202</sup> Note that choice architects may be trustworthy because of market incentives (in the case of private institutions) or democratic checks (in the case of public institutions). Recall, however, that active choosing has the advantages of increasing learning and promoting the formation of preferences and values.