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Odd bedfellows: how choice architecture can enhance autonomy and mitigate inequality

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Abstract: The concept and use of choice architecture in public policy arouses warranted suspicion among scholars and the general public. Liberal scholars fear that without limitations, the contemporary wave of nudge theory and policies threaten individual autonomy. In this paper, I argue that the use of choice architecture in particular policy areas can not only enhance individual autonomy, but also work to mitigate larger social inequalities. Research demonstrates that too much choice leads to 'choice paralysis', especially in instances where knowledge is low and stakes are high. By limiting and nudging choices in these contexts, individuals are likely to feel less overwhelmed and more in control. A stronger sense of control and additional resources elevates the experience of autonomy felt by vulnerable populations (those with low knowledge and resources). This paper offers a theoretically robust defense of choice architecture by examining the relationship between choice architecture and autonomy.

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Introduction

The behavioral revolution changed the landscape of economics in the late twentieth century and is currently changing the landscape of public policy. At the end of the twentieth century, economists, psychologists, neuroscientists and political scientists began questioning the assumption that humans are perfectly rational. Years later, there is now a wealth of empirical evidence to show that human decision-making is fallible in predictable ways, leading the behavioral science literature to conclude that human cognition operates under at least two different 'systems'. System 2, responsible for reflection, rational

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judgment and critical thinking, is how scientists previously conceived of the human brain. The 'perfectly rational' assumption informed many of the economic models we still use today. System 1 represents our fallible side, the one that reacts automatically and unconsciously to stimuli and utilizes heuristics and shortcuts to overcome cognitive barriers. We have no control over when and how System 1 operates, but we do have a choice in whether to engage System 2 to reconsider the output from System 1. Given the increasing complexity of our modern world and the strain that it places on our cognitive bandwidth, our reliance on System 1 is inevitable. However, this trend is not necessarily a bad thing. In some cases, our use of heuristics can help us to overcome cognitive barriers to making decisions in our best interests (e.g., the use of party identification as a heuristic for voting). But in many other cases, unconscious cognitive biases can lead to poor outcomes. Overconfidence can lead to bad investments, the status quo bias can lead us to forgo important benefits and framing can make us susceptible to negative media messages.

The work of Richard Thaler and Cass Sunstein demonstrates how we can harness the power of public policy-making to counteract these negative effects and increase welfare. A nudge is 'any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives' (Thaler & Sunstein, 2008, p. 6). Importantly, the goal of the nudge should be to make people better off 'as judged by themselves' (Sunstein, 2019, p. 33). Nudge theory, or choice architecture, is essentially the overarching theory that altering the choice environment can produce different outcomes and improve the well-being of the individual.

Since the late 2000s, governments around the world began establishing internal entities to advise officials on the application of behavioral insights and nudges in policy. To date, the following countries and international organizations have established internal behavioral insights units: Australia, Canada, Denmark, France, Germany, The Netherlands, Peru, Singapore, the UK, the USA (briefly), the World Bank and the United Nations. Nudge theory has become increasingly popular because solutions to behavioral problems are often straightforward, effective and inexpensive (Benartzi *et al.*, 2017). Why spend taxpayer money on an expensive ad campaign about the benefits of organ donation when changing the default option on a registration form garners the same results? Applying choice architecture to policy requires studying the decision-making context, pinpointing the faults in behavior that are leading to poor outcomes and applying solutions to correct or sidestep those faults for individual and public benefit. The individual wins by experiencing increased welfare and the government wins by avoiding unpopular

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mandates and costly policies. Choice architecture in public policy generates wide appeal because the results are tangible and the policy is cost-effective.

Though the material benefits of choice architecture are undeniable, some scholars argue that the threat to individual autonomy posed by these policies outweighs material considerations. These critiques hinge on assumptions about rationality, autonomy and welfare. Critics not only question the assumption that individuals are irrational (or even boundedly rational), but also argue that nudge-style policies weaken individual decision-making. Governments should preserve freedom of choice, even if it means humans experiencing cognitive biases inflict self-harm. Anti-nudge proponents make both rights-based and moralistic arguments. According to the former, freedom of choice is an inviolable right of individuals and citizens. According to the latter, maturity is gained by making mistakes, and choice architecture – by taking away the opportunity to fail – hampers the development of individuals into flourishing adults. Finally, much of the liberal critique boils down to a deceptively simple syllogism: choice is a fundamental component to autonomy and autonomy is essential for welfare, so the preservation of choice is essential to welfare (Schwartz & Cheek, 2017). Thus, the denial of choice might be both disrespectful and harmful to the individual.

The few objections presented above are not exhaustive, but they represent what I take to be the major foci of all critiques of nudging: individual freedom and the role of government. In this paper, I argue that the underlying assumptions of these critiques fail under certain circumstances when the decision is complex, rare, resource intensive and imposes significant consequences. When liberal scholars critique nudging, they critique the most basic contexts where nudging might take place, such as in the placement of food in a cafeteria. But the decision about what to have for lunch differs in significant ways from the decision of which health insurance plan to enroll in, for example. I have had the opportunity to develop preferences for flavor and texture over time in ways that I have not developed preferences for coverage and costs. Further, I might be acutely aware of the consequences of choosing a donut over an apple, but be entirely unaware of the consequences of various retirement plans. The psychological and financial resources expended in making complex financial decisions far exceed the resources necessary in deciding what to have for lunch.

Without guidance in the former circumstance, I may feel overwhelmed by the amount of information I am asked to process and the level of expertise I must bring to a decision I rarely encounter. Further, I am also likely to make a suboptimal decision than I would otherwise make with the required knowledge and expertise. This scenario closely mirrors the example of poor choice architecture discussed in *Nudge* regarding the rollout of Medicare Part D prescription drug plans, which offered seniors 45–60 different plans and no counsel.

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The number and diversity of plans even baffled doctors, who might have been the best sources of knowledge for their patients. When individuals are given assistance with these harder decisions (in the form of a nudge or a default), they are likely to feel more certain about their decision and end up with an outcome that is better suited to their needs. Nudges, defaults and other behavioral tools leverage expert knowledge in order to provide choosers with clarity on an otherwise daunting decision. This relative increase in self-assurance and absolute increase in tangible resources is more likely to enhance individual autonomy than leaving choosers to their own devices.

Decisions that are complex, rare, consequential and resource depleting are also the kinds of decisions likely to adversely affect some groups in society more than others. If I have the time, education or means to thoughtfully consider the health care plans available to me, I am more likely to reap the benefits. Conversely, if I lack the time, education or means to thoughtfully consider the health care plans available to me, I am more likely to forgo enrollment or select a suboptimal plan (which is exactly what occurred with the rollout of Medicare Part D prescription drug plans). Resources such as time, education, money and social connections are unequally distributed. If choice architecture can close the gap on some of these resource disparities, it can help close the gap on outcome disparities as well. In a country where poor and minority groups fall well behind more privileged classes in economic prosperity, educational achievement and health status, choice architecture promises one method for mitigating inequalities.

My goal in this paper is to provide a theoretical argument for how choice architecture can enhance autonomy and mitigate inequality. The points made here do not contradict similar points made elsewhere, but instead attempt to strengthen those arguments by providing a more theoretically robust defense of nudge theory. In the next section, I delve into the two major critiques posed by liberal scholars and demonstrate how the assumptions underlying these arguments fail in some contexts. Following that, I define the conception of autonomy used throughout the rest of the paper and discuss why this definition is relevant for the choice architecture literature. I then discuss the mechanisms tying choice architecture to individual autonomy and societal inequality, paying particular attention to the psychological effects of choice architecture. Moving beyond the material or tangible effects of choice architecture allows us to consider other psychological and social benefits and provides a theoretical basis for further empirical study.

Nudge backlash

Since the publication of *Nudge* and the proliferation of choice architecture at every level of government, critics have questioned the impact of this kind of

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policy-making on decision-making, autonomy and welfare. I briefly sketch these critiques here in order to anticipate later objections to my thesis that choice architecture can enhance individual autonomy and mitigate social inequality. According to nudge supporters, individuals face cognitive biases that negatively impact their ability to choose and poor choice-making leads to poor outcomes. Three scenarios describe decision-making quandaries where choice architecture can help: (1) they know what they want, but they struggle with self-control; (2) they know what they want, but they have no clue how to get there; and (3) they are indifferent about what is it they want and do not mind if someone else chooses for them (Sunstein, 2019, p. 81). Tweaks and adjustments to the choice environment can help individuals overcome these roadblocks of self-control, lack of knowledge and indifference and increase their welfare.

One group of liberal scholars critique nudge theory because they believe it encourages the detrimental effects of System 1 (automatic processing) and discourages the use of System 2 (rational decision-making). They argue that nudges are manipulative because they oftentimes play into cognitive biases instead of promoting thoughtful consideration (Arneson, 2015). Not only do nudges harm decision-making, but they also pose a threat to individual freedom because freedom can only be exercised when the individual is given the opportunity to make unfettered choices affecting their life. The right-leaning (libertarian) critique of nudge theory and its effect on individual autonomy is based on four arguments: (1) more choice is better; (2) the individual knows what is best; (3) even if the individual does not know what is best, failure is an important part of autonomy; and (4) even if freedom allows the individual to inflict self-harm, it should be preserved. I argue that the first and second arguments are untrue in certain contexts, the third argument might be true but is potentially devastating and the fourth argument is right or wrong depending on one's commitment to deontology or consequentialism.

One core tenet of our Western culture is that choice is synonymous with autonomy. Therefore, any restriction on choice is tantamount to a restriction on autonomy. Freedom of choice allows individuals to express their unique identities and values (Markus & Schwartz, 2010). According to this belief, 'unfettered voluntary choice' is equivalent to individual autonomy, and respect for one implies respect for the other (Feinberg, 1971, p. 68). Anyone can see the realization of this value by walking to their local supermarket and standing in the cereal aisle. But could it be possible that too much choice actually hinders autonomy? A growing body of literature demonstrates how too many choices can lead to choice overload, or choice paralysis (Peter *et al.*, 2010; Schwartz & Cheek, 2017). If this is true, then the syllogism is incorrect. Rather than promoting autonomy, the abundance of choice actually

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prevents individuals from acting. While the results of this hypothesis are mixed in cases where the decision is mundane (i.e., what cereal to buy), the results are clear in cases where the decision is complex and individuals are uncertain of their preferences (Schwartz & Cheek, 2017). A meta-analysis of the literature finds consistent negative effects of choice paralysis and overload when individuals are presented with choices with the following features: high task difficulty, greater choice-set complexity, higher preference uncertainty and decision goal feasibility (Chernev *et al.*, 2014). Thus, in contexts with these features, more choice is not necessarily better.

A core underlying assumption of the 'choice equals autonomy' syllogism is that individuals know themselves and know what is best. If anyone else decided for them, they would be worse off than if they were given the opportunity to decide for themselves. But in the settings I focus on here (where the decision is complex, rare and consequential), sometimes individuals do not know what is best. In fact, the decisions people make in these circumstances could be detrimental to their autonomy and welfare. Modeling a health insurance exchange, researchers asked respondents to select the most cost-effective policy and found that respondents who were presented with a default performed better than respondents who were left to their own devices (Johnson *et al.*, 2013). Calculating cost-effectiveness for a health insurance plan is complex, especially the first time, and most respondents tended to overweight deductibles and underweight premiums (Johnson *et al.*, 2013).

People not only are ill-equipped to make decisions in these scenarios, but also they do not even want to make these decisions. One survey found that 'people want more choice in the mundane, everyday domains (e.g. flavors of jam) than in the more consequential domains of health care decisions' (Schwartz & Cheek, 2017, p. 113). It is not universally true that people want more choice, and they may prefer less choice or no choice at all. In cases where individuals are 'happy either way', the imposition of choice could be more paternalistic and run counter to individual preferences than if the decision were made for them (Sunstein, 2019, p. 81). Paradoxically, choosing to have less choice may grant more power and agency to the individual than forcing them to choose in circumstances where they feel ill-equipped or indifferent.

Granting that individuals will make bad choices that will negatively affect their welfare, critics argue that unfettered freedom of choice is still important for individual growth. After all, everyone makes mistakes, and it can be these mistakes that turn us into competent, mature adults. Liberal scholars will argue that when we deny people the ability to choose, we not only deny them self-government, but also inhibit their ability to be self-governing. If the government takes away the opportunity for people to fail, it takes away

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critical experiences necessary to build character and strengthen rational judgment (Feinberg, 1971; Bovens, 2009; Hausman & Welch, 2010; White, 2013; Glod, 2015). Failure is certainly a part of learning and growth, but could the price of failure justify intervention? Suppose a single mother of two is doing her taxes and misses out on an important opportunity to receive a tax credit because the process to enroll was too time-consuming. She could be a mature, competent adult and yet forgo a major financial benefit because the system is too complex to navigate. Is it more respectful and humane to abide by a principle that says 'people who fail deserve to fail' or to provide assistance that 'lifts all boats' and increases welfare? Even if we grant that failure leads to maturity, it is not clear from this example whether the woman would even perceive the 'failure' and correct it. Though it is true that maturity is not gained without failure, a universal hands-off approach could lead to disastrous results (that may even go undetected by those in harm's way).

Even if I convince the anti-nudge scholar of the harmful consequences of too much choice in certain contexts, they may remain committed to absolute freedom of choice on principle. They may believe that any negative ramifications from preserving freedom of choice are far outweighed by the evils of infringing on choice. Perhaps they worry about the potential slippery slope of choice architecture and the increasing encroachment of these types of interventions on personal freedom. As nudge theorists have shown, however, nudge-like interventions must be justified by promoting the welfare of all individuals impacted by the policy. When discussing the possible merits of implementing a default retirement plan, Thaler and Sunstein (2008, p. 108) argue that 'the costs of saving too little are greater than the costs of saving too much'. In other words, the gains from a default retirement plan far outweigh the gains from not having a retirement plan. The worst outcome from implementing a default retirement plan is that individuals will have less immediate income, but the worst outcome from the status quo is that many more individuals will lose out on adequate retirement savings.[1] Nudge proponents often justify intervention from a consequentialist perspective. Nudges are not universally effective or suitable, but in the cases where they are, any unintended consequences are much better (and more humane) than doing nothing at all.

1 Obviously, policy-makers face a trade-off between choice, efficiency, welfare and autonomy. Providing only a default retirement plan would be efficient but would likely ignore other factors impacting individuals and override their role in the decision. Conversely, providing 60+ plans would be highly inefficient, causing under-enrollment and choice overload, but preserving choice. Adding additional choices should be justified by considering the impact on the decision-making environment and potential individual gains.

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Another set of objections addresses the fear that choice architecture grants too much influence to the 'nudgers' over the 'nudgees' (Schmidt, 2017). Nudgers are free to tinker with the choice environment to produce certain outcomes. For this reason, a neutral and unregulated presentation of choices might be best. But, as Thaler and Sunstein argue, choices are not presented in a vacuum. No matter how unregulated the choice environment might be, the presentation of options is rarely neutral. Critics of choice architecture assume that policy-makers are moving from a state of choice neutrality to choice control, but choice architects are always exerting some level of control; thus, choice architecture is 'inevitable' (Sunstein, 2014, p. 16). Choice architects are almost always consciously or unconsciously motivated to present options in a certain way, whether to maximize profit, conform to social norms and customs or promote welfare. If choice architecture is inevitable, our job as a public is to determine which motives are justifiable in which settings and to what ends.

Given the stickiness of interventions such as defaults, critics also worry that citizens might be unaware that they are being nudged and fall prey to manipulation. In a series of experiments, researchers discovered that at least one reason for the 'stickiness' of defaults is the perceived knowledge and implicit trust in the nudger (McKenzie *et al.*, 2006). Other reasons for why defaults are so effective include status quo bias and perceived effort to deviate (Thaler & Sunstein, 2008). Since nudges involve subtle changes that impact behavior, it can be difficult to maintain the kind of government transparency necessary for democratic oversight. If citizens lose the ability to check the actions of government, it becomes more likely that government will exercise illegitimate and arbitrary power over citizens (Grüne-Yanoff, 2012, p. 638). Further, critics assert that government will fail to approximate the preferences of citizens and so fail the criterion that nudges are interventions that encourage decision-makers to choose the best options 'as judged by themselves' (Thaler & Sunstein, 2008). They fear that the attempt to capture citizen's 'true preferences' will be impossible at best and manipulative at worst (White, 2013; Arneson, 2015; Hanna, 2015).

Unchecked nudging is certainly a legitimate problem, but it can be overcome with the proper incentives, institutional designs and norms to restore public trust. Besides standard democratic and legislative institutions that guarantee a representative government (i.e. term limits, voting, checks and balances, campaign finance transparency and freedom of the press), there are other innovative ways to prevent nefarious government intervention. For example, governments that want to incorporate behavioral research and choice architecture into policy can establish an independent 'nudge unit' responsible for conducting research, gathering data and advising the legislator/executive branches. The intellectual integrity of the unit can be ensured by requiring research to be

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non-partisan, verified by a third party (such as a professional journal or university), publicly accessible (with open data sharing) and pre-registered (Maynard & Munafo, 2018). Government can also institute 'standards of legitimacy' to guide legislative action. These solutions could and should be explored further, but this brief discussion demonstrates how we can harness the positive benefits of choice architecture without abandoning our democratic commitments and eroding the public trust in government.

Autonomy

After addressing a few prominent critiques of nudge theory, we can begin to consider the promising benefits of choice architecture for individuals and society. My main claim in this paper is that, in certain contexts, choice architecture can enhance individual autonomy and mitigate societal inequality. Other behavioral scientists have made similar arguments, but they do so without specifying what it means to be autonomous (Sunstein, 2015). I believe doing so is imperative for any philosophical defense of choice architecture.

Autonomy is generally thought of as the capacity to shape, critically reflect and act on one's values, desires and life goals. Autonomy can be internal and individualistic, in the sense that one's circumstances are heteronomous to one's ability to be autonomous (Feinberg, 1986; Benson, 1994; Dworkin, 1988; Darwall, 2006). This version of autonomy is often postulated as an ideal or abstraction of what autonomy 'should' be, upon which to structure debates about social policy, political institutions and rights and therefore sidestepping considerations about context on individual autonomy in a practical sense (Christman, 2001, p. 188). However, this abstraction becomes less constructive when we consider autonomy in applied settings, where environmental constraints are inevitable. If we concede this point, the question becomes: Which external circumstances restrict or enhance autonomy in the real world?

Another set of scholars defend a relational, constructivist approach to autonomy that acknowledges the need for internal reflection and self-determination, but emphasizes the role of one's environment as critical to the expression of autonomy (Govier, 1993; Oshana, 1998, 2003; Westlund, 2009; Garnett, 2013). I adopt a relational definition of autonomy when I discuss the benefits of choice architecture because they share a congruent understanding of the power of one's environment on individual decision-making. According to relational autonomy scholars, any account of autonomy that ignores an individual's environment, particularly their social status, ignores important ways in which individuals can be free or unfree.

Consider the example of the voluntary, happy slave. The person who opts into slavery could consider himself fully autonomous at the time he entered

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slavery, and once a slave he might be perfectly happy with his condition. However, his condition in relation to his master and others in society is to be without the ability to direct his life; '*being* a slave means that *how* he shall live is no longer up to him' (Oshana, 1998, p. 87, emphasis in original). Regardless of the 'subjective psychological characteristics' required for autonomy, 'there are objective social criteria according to which we judge someone as autonomous' (Oshana, 1998, p. 85). In order to be autonomous, individuals must have the social standing and respect of others to act upon their personal goals and desires.

On the other hand, certain notions of autonomy, such as interdependent agency, recognize that one's life plan could be in large part influenced by others (Iyengar & Lepper, 1999; Kim & Markus, 1999). For example, a college student whose goal is to get all A grades could be heavily influenced by their parent's worldview that academic success is important. The student may be reacting to the desires of others in their academic pursuits, but they are incorporating them into a plan of action entirely directed by themselves. In this case, the student is not being forced to get all A grades (assuming the parents are not enforcing contingencies on their success), but is instead adopting a shared value, one passed on to them by their parents. Shared, communal values define our environment in many ways, and adopting them as our own does not exclude us from also being autonomous individuals.

The traditional narrative of autonomy views external constraints as antithetical to autonomy. Schwartz and Cheek (2017) posit that not only is an abundance of choice antithetical to autonomy, but also restrictions on choice potentially enhance autonomy. Imposed external constraints and established regulatory bodies can open up space for individuals to act autonomously. Traffic laws, for example, 'provide, through stability and predictability, positive resources that enhance autonomy' (in this case, my ability to move freely and get to where I want to go) (May, 1994, p. 134). In the next section, I argue that choice architecture can serve exactly this function by imposing limits on the sheer number of choices and improving choice navigability.

Relational autonomy presents a holistic account of autonomy that recognizes the impact of both external circumstances and one's internal capacity. The individual must have the requisite capacities for critical reflection, but they must also have a certain level of self-worth, self-trust and self-respect to act on their values, desires and goals. An individual cannot act on their innermost goals and values if they do not see themselves as valuable or their goals as worthy pursuits. I can highly value education and possess the means to further my education, and yet fail to pursue it because I do not value myself or trust that I will succeed. According to Trudy Govier (1993, p. 108), trust is a

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necessary component to self-worth and the capacity to act: 'to reflect on one's beliefs and desires, to work out a resolution in cases in which they conflict, it is necessary to view oneself as having worthy desires, competently founded beliefs, and the cognitive and moral capacity to make good judgments and implement decisions'. In other words, to feel self-respect and self-worth, you need to be able to trust your own self-evaluation. Thus, there appear to be at least two separate conditions necessary for the richest experience of autonomy: the internal feeling and knowledge of one's autonomy and the ability to outwardly express one's autonomy. Both conditions cannot be met and understood without reference to the contextual factors affecting autonomy. Relational autonomy is a more inclusive understanding of autonomy, one that captures the totality of its experience by incorporating aspects of an individual's environment, internal capacities and psychological confidence.

Enhancing autonomy

The assumption of many critics of choice architecture is that there is a positive relationship between choice and autonomy. This argument assumes that more choice is equivalent to a greater capacity to act autonomously. However, as discussed above, greater choice can have the opposite effect: too much choice can be debilitating and paralyzing, leading to suboptimal decisions or no decision at all. By reframing, limiting or nudging choice, policy-makers can help individuals by avoiding the negative psychological effects of choice overload and by encouraging sound decision-making. In the short term, nudging policies relieve individuals of a complex and cognitively overwhelming decision, freeing up more cognitive bandwidth to consider other meaningful choices.

In addition to cognitive overload, an abundance of choice in certain contexts could negatively impact self-trust and self-esteem, both critical prerequisites for autonomy. If I feel incapable or uncertain about my personal financial or medical decisions, I might be more likely to question my decision-making capacity in similarly complex domains of my life. For example, if I feel unconfident about my retirement investment decisions, I might be equally unconfident about my decision to refinance my mortgage. Absent any guidance, I might be more likely to make a suboptimal decision about my retirement *and* my home financing, or avoid thinking about one in favor of the other. The short-term benefits of choice architecture on autonomy are primarily psychological: avoiding the damaging effects of uncertainty. As discussed previously, more choice can actually impede autonomy and cause feelings of paralysis and regret. In experimental settings, studies show that increasing the number of choices is associated with 'lower chooser confidence and greater experiences of negative effect; that is, people choosing from more extensive choice sets

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are less satisfied with their decision outcomes' and more likely to regret their choices (Botti & Iyengar, 2006, p. 26).

In a 2004 study, Iyengar, Jiang and Huberman found that as the number of funds available for 401(k) investment increased, participation in a 401(k) decreased. Regardless of incentives such as employer matching contributions and the option to invest in high-growth equities, 'findings show that employees who are eligible for "defined-contribution" plans are more likely to opt out when they are offered increasing numbers of fund options' (Iyengar *et al.*, 2004). The consequences of forgoing participation for even one year can equate to thousands of dollars in retirement savings. The domain of retirement is a perfect example of the potential long-term effects of choice architecture on autonomy. If individuals are less likely to enroll in retirement plans as the choices increase, choice architecture can be used to increase enrollment and increase retirement savings.

As mentioned previously, acting autonomously includes an internal capacity as well as an external ability to control one's circumstances. Financial security in retirement is about more than status – it is about survival. A report by the National Bureau of Economic Research (NBER) finds that adults who turned 70 in 1992 will incur an average of $122,000 in out-of-pocket medical spending over the remainder of their lives (Jones *et al.*, 2018). Another study by the NBER reports that in the last year of life, individuals spend the most on nursing home and hospital expenditures, followed by insurance, prescription drugs and home health care (Marshall *et al.*, 2010). Small tweaks in the decision-making environment early on can increase individuals' financial resources and benefit their health post-retirement. Counterintuitively, limiting choice in the short term can lead to an increased ability to choose later in life. Greater financial resources in retirement can grant individuals greater autonomy and control of their end-of-life care. Ultimately, the goal of nudging is 'to promote navigability and to increase people's capacity for agency and autonomy' in the short and long term (Sunstein, 2019, p. 33). Again, autonomy is not guaranteed by an abundance of choice, but by freedom from choice paralysis. If there were no impositions on choice, such as a world without traffic laws, our time would be entirely spent on mundane considerations. Nudge-style policy-making creates choice structure, much like traffic laws, so that individuals can pursue a richer, more meaningful life.

Mitigating inequality

Absent any intervention, individuals facing complex, rare and consequential decisions experience cognitive overload and, having little information, make

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suboptimal choices, leaving them less well-off. Just as every decision is not the same, every decision-maker is not the same. Privileged individuals will have an easier time overcoming the barriers of cognitive overload and low information because of their educational, economic and social resources. A perfect example to illustrate this inequity is tax filing. Tax filing is not rare (it happens once a year), but it is complex (with multiple forms requiring documentation) and consequential (how you file could result in a substantial return or penalty). In 2017, the average tax accountant charged over $150 just to prepare and file a Form 1040 and state tax return (NSA Blogger, 2017). If your filing circumstances are more complex and require special forms, individuals and families can end up paying over $500 for tax assistance. Wealthier individuals can either afford to pay a tax accountant, have an education that helps them interpret filing forms or perhaps know someone in their social circle who can help them with taxes. Not only do these kinds of policies worsen individual outcomes, but they also threaten to exacerbate existing inequalities.

The example I just discussed highlights material inequalities, which are transparent. What about hidden inequities that intensify these material outcomes? Being an upper-class individual comes with a certain level of security for the reasons mentioned above. More privileged classes have resources to fall back on in a crisis, meaning they experience a certain level of confidence that things will work themselves out. Mullainathan and Shafir (2013, p. 83) refer to this security as cognitive 'slack', or, in other words, 'room for failure'. Conversely, individuals on the opposite end of the socioeconomic spectrum lack secure resources to fall back on, so they must always remain vigilant lest their resources are depleted. Individuals in poverty experience less freedom to fail, causing anxiety and distress, and their limited resources constrain their behavior and autonomy in meaningful ways. Research shows that individuals with lower socioeconomic status experience a lower sense of control and are more deferential to the needs of others over their own, demonstrating the ways in which the psychology of poverty affects behavior and individual autonomy (Kraus *et al.*, 2009; Stephens *et al.*, 2011).

One prominent study tested the effect of financial urgency on cognition and discovered that poor individuals performed worse than wealthy individuals. The anxiety induced by financial scarcity caused the poorer individuals to face greater barriers in cognition: 'being poor means coping not just with a shortfall of money, but also with a concurrent shortfall of cognitive resources' (Mani *et al.*, 2013, p. 980). To ensure the effects were related to the circumstance and not the individual, the researchers conducted the same test on farmers at different points in the growing season and found the same results (the same farmer who performed poorly in the pre-harvest time period performed better in the post-harvest time period). Cognitive capacity is itself a

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limited resource, one that can be scarcer for individuals with low socio-economic status. When individuals experience scarcity, it taxes their cognitive 'bandwidth', making it difficult to pay attention, deliberate and resist temptation (Mullainathan & Shafir, 2013, pp. 41–42). Poverty becomes a vicious cycle because the poor are living with little room for error and a persistent cognitive bandwidth tax, meaning that 'an initial scarcity is compounded by behaviors that magnify it' (Mullainathan & Shafir, 2013, p. 126). People in poverty pay a high bandwidth tax, making them more likely to commit the kind of decision-making errors that will perpetuate poverty. The positive implication of the scarcity research is that the cognitive pitfalls of those in poverty are not inherent, but contextual (Mullainathan & Shafir, 2013, pp. 144–145).

Our cultural narrative of the causes of poverty also reinforces that proliferation of choice is a good thing. There is a common understanding in Western culture that hard work will always lead to rewards. Thus, your value in society is measured by your achievements, your social standing and your wealth. If you are poor, the implication is that you did not work hard enough or choose wisely. Material success and social status become reflections of one's individual abilities and worth, rather than their circumstances. Poverty causes individuals to live with a deep sense of shame because they attribute their failures to personal faults. Your 'failure' becomes a direct reflection of your lack of cognitive ability and willpower. When we examine individual experiences of poverty, we understand that poverty is not just a material condition, but a psychological and social one characterized by 'a lack of voice, disrespect, humiliation and reduced dignity and self-esteem' (Jo, 2013, p. 516). If a sense of self-worth is a key component to acting autonomously, as I argue above, then those in poverty face an internal roadblock to achieving autonomy to the fullest extent.

A key assumption of the Western belief that success is directly proportionate to good decision-making is that choice is distributed equally. A powerful example of the disparity of choice is Hurricane Katrina. One study examined the role of choice in the experiences of working-class blacks and middle-class whites and discovered that the white respondents were more likely to construe their actions in terms of choice, while black survivors described the necessity to adjust to their environment (because they lacked the material resources to evacuate). Outside observers were quick to conclude that those who did not evacuate 'chose' to stay, 'but for many impoverished New Orleans residents, nothing about the events of Katrina was a matter of choice' (Markus & Schwartz, 2010, p. 350). Cultural frames that place an emphasis on individual choice and ignore social circumstance contribute to the stigmatization of poor and minority groups, perfectly illustrating the central tension between individualism on the one hand and social contextualism on the other.

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Policies likely to cause cognitive overload and exacerbate resource gaps are perfect opportunities for choice architecture. Using choice architecture to combat inequality is nothing new. The Behavioral Insights Team has conducted dozens of studies and implemented effective strategies to reduce the gender pay gap, improve individual budgeting, improve school attendance for disadvantaged children, increase the rate of college application for low-income students and much more. The use of behavioral interventions to combat poverty is increasing at the international, national and sub-national levels. Behavioral science succeeds at measuring inequity, understanding the decision-making process underlying the inequity and targeting policies to nudge choosers in a way that addresses the inequity. Additionally, implementing choice architecture in the areas where inequities are most prevalent benefits everyone – not just those few with the resources necessary to choose optimally.

Perhaps it has become apparent that the rhetoric of poverty itself changes when we explore the issue through the lens of behavioral science. The traditional rhetoric around poverty in the USA is fraught with implicit and explicit biases. Poor people are seen as lesser because they are perceived as lazy, selfish and undeserving. Some of these negative stereotypes stem from racial biases, as there has been a longstanding association between poverty and minority status in this country. Debates about welfare policy are typically framed in a way that places blame on the poor and sees them as a problem to be dealt with or people to be 'disciplined' (Soss *et al.*, 2011). This type of rhetoric not only promotes negative stereotyping and mistreatment, but also negatively impacts the self-perception of disadvantaged individuals. There is plenty of evidence to show that stereotype threat and poverty negatively affect self-esteem, self-worth and cognitive function and can become a self-fulfilling prophecy (Steele, 1997; Croizet & Claire, 1998; Beilock *et al.*, 2007; Jo, 2013; Mullainathan & Shafir, 2013).

In contrast, in understanding the role of cognition and behavior in decision-making we can acknowledge the universality of cognitive biases. Instead of blaming poor people, we can recognize that 'the poor are less capable not because of inherent traits, but because the very context of poverty imposes load and impedes cognitive capacity' (Mani *et al.*, 2013, p. 980). Choice architecture, with its emphasis on behavioral scientific evidence, can offer a rhetorical framework to combat ingrained negative stigmas and reduce shame. If cognitive roadblocks are simply a fact of human cognition, which are exaggerated by scarcity, there becomes nothing inherently deficient about poorer individuals. Instead of imposing policies on the poor that assume they are incompetent, nudge theory demonstrates that even those making such policies succumb to the same cognitive biases (Moles, 2015). When we recognize that cognitive faults are 'errors that have been visited upon us rather than chosen,

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our treatment of frailty in others should be governed not by disdain but by sympathy and a recognition that help is due' (Conly, 2013, p. 188). When we approach policy in this way, we can positively impact both material circumstances and perceptions of the most vulnerable populations.[2]

Conclusion

Since the proliferation of evidence-based policy-making and the rise in the use of behavioral science insights in policy, critics have objected to choice architecture as an affront to individual autonomy. According to this argument, choice is a critical requirement for autonomy, and when individuals can choose in accordance with their preferences, they are better off. However, a growing body of literature demonstrates that too much choice can lead to choice overload, an inability to act and poorer outcomes for individuals. Choice overload is most likely to occur in contexts where knowledge is low and stakes are high. The goal of this paper was to demonstrate under what circumstances and to what extent choice architecture can enhance autonomy and mitigate inequality. Beginning from a definition of relational autonomy, which emphasizes the importance of contextual factors impacting autonomy, I explored the material and immaterial benefits of choice architecture. Utilizing choice architecture in certain policy contexts can improve individual outcomes and boost feelings of self-confidence and assurance, both of which increase the capacity to act autonomously. Choice overload is more likely to impact those without the resources to compensate for their lack of knowledge. Therefore, groups in society with the lowest amount of resources have the most to gain from choice architecture. The choice architecture paradigm also changes the way we speak of poverty in general. Instead of attributing blame and assigning punishment to individuals in poverty, behavioral science insights allow policy-makers to speak of poverty in terms of context, cognition and psychology. Simply by employing structured choice in certain policy areas, policy-makers can positively affect autonomy and welfare. These effects cannot be understated in the current era of economic and racial inequality, increasing reliance on bureaucracy and increasing policy and technological complexity.

2 Policy-makers will need to be aware when implementing choice architecture that they do not inadvertently *create* a sense of exclusion. Systematic and biased restrictions of choice have been shown to decrease self-worth for disadvantaged communities. Researchers studying access to loans and credit found that repeated denials of choice had a 'cumulative debilitation effect' on minority and poor individuals that results in 'deleterious impacts to self-esteem, self-efficacy, self-autonomy, and other facets of self' (Bone *et al.*, 2014, p. 453). Policy-makers need to be aware of the ways that institutions and policies can trigger negative reactions in these disadvantaged groups.

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