



Earning our place, more or less: responsibility's flexible relationship with desert in socioeconomic standing

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Abstract

I use a nationally representative survey to determine whether and which Americans associate personal responsibility with economic desert. Philosophers actively debate this relationship, but social scientists routinely take it for granted, foisting this assumed relationship on the people they study. Respondents, I find, generally want their economic fates to rest on criteria for which they are (or appear) personally responsible, but they express this belief with varying levels of conviction and with two notable exceptions. The first involves specific determinants of economic status. Respondents are divided on whether individuals exert control over their intelligence, creativity, health, and educational pedigree, but they are generally comfortable with the first two affecting peoples' economic standing. The second concerns who considers personal responsibility morally relevant to economic status. Neoliberals, chiefly concerned with economic growth, are significantly less insistent that individuals be personally responsible for their economic standing. Same for non-white, lower income, and older respondents, and respondents from elite schools, though to a lesser degree. At best, ideal paths to economic success and ruin are moderately associated with personal agency, though many are weakly correlated. So it goes with respondents' overall correlations between perceived control over economic determinants and the ideal-importance of those factors to economic standing. Researchers must look beyond their preferred philosophical dispositions and investigate justice as it is envisioned and lived by their subjects.

Keywords Justice · Morals · Social institutions · Responsibility · Desert · Luck

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1 Introduction

At a stop in Roanoke, VA during the 2012 presidential campaign, President Obama delivered his now infamous “you didn’t build that” remark (Gardner 2012). Profitable businesses, the president contended, rely on transportation, communication, and education infrastructures built and maintained by people unassociated or indirectly associated with the benefiting organization. Successful businesspeople, moreover, owe some of their success to teachers, parents, and others who motivated, inspired, and (sometimes financially) supported them. In their “We Built It”-themed National Convention, the Romney campaign and conservative media outlets attacked the President’s insinuation that economic elites could not claim credit for their accomplishments.¹ Who, exactly, built ‘it’ is an empirical question, and I will not here add to the already vast literature that can speak to the disagreement.² More interesting is the underlying moral point on which the Obama and Romney campaigns tacitly agreed: That there is an intimate connection between *deserving* a specific economic situation and being *personally responsible* for that situation.

To admit that the economically well-off are not the sole authors of their success would suggest to both President Obama and Governor Romney that America’s wealthy cannot lay moral claim to the full accounting of their riches. This logic presumably applies down the socioeconomic ladder. Were the economic lot of Americans generally subject to capricious, impersonal forces for which an individual could not logically be held accountable, then—by Obama and Romney’s implicit argument—those Americans would not deserve whatever economic station they inhabit. The directional arc linking personal responsibility to economic deservingness may seem unavoidable, and many philosophers argue as much (e.g., Pojman 1997; Rachels 1978; Rawls 1971). Others protest (e.g., Cupit 1999; Feldman 1995a). Either way, morality as it is envisioned by professional thinkers is apt to differ from morality as it is commonly understood and practiced.

Americans (and everyone besides) have a long history of denying people economic advancement because of qualities over which they have limited or no control, and they often do so with the same moral certitude that accompanies the familiar rhetoric surrounding hard work and its responsibility-laden ilk (e.g., O’Flaherty 2015; Ross 1982; Rotem and Demel 1996). Prominent conservative Christians argue that, while women are as economically capable as men, their Biblically-ordained submission to God and family means they lack a moral claim to workplace participation (e.g., Horton 1982, Jepsen 1988; see Sherkat 2000). And despite strategic wrangling over which and how many kin will be heirs, farmers across the country and throughout its history steadfastly maintain that only family members can be

¹ Ironically, public funds covered around 62% of the costs to build the 2012 Republican Convention stadium (Sirota 2012).

² Economists continue to investigate the private productive value of public infrastructure (e.g., Cohen and Morrison Paul 2004), and they know well the importance of familial background in determining individual economic wellbeing (e.g., Bowles et al. 2005).

the “rightful owner[s]” and inheritors of a farmstead (Rogers and Salamon 1983, 545). Conservative Christians do not think humans control their sex, nor do farmers think they choose their parents, yet members of these groups cite those attributes—separate from, and often paramount to, considerations of practicality and financial self-interest—as reasons to deserve jobs, land, and the economic benefits they reap.³ Desert is an emergent phenomenon that, like all social institutions, varies across professions, religions, states, and other communities. Even bedrock dimensions like personal responsibility, which seemingly cut across different definitions of desert, are open to variation (Binmore 2011; Bower-Bir 2014).

Determining whether and to what degree different communities within a population differ in their definitions of economic desert is of direct interest to philosophers, as well as economic, social, and cognitive scientists. Moral philosophers are not agreed on responsibility’s association with desert, with many of their ranks arguing against the usual linkage (e.g., Cupit 1996, 1999; Feldman 1995b; Feldman 1996). This debate has gone largely unnoticed in economics and psychology, where researchers not only assume responsibility’s intimacy with desert, but they assume the everyday people they study are similarly convinced of that intimacy (Greenberg 2011; Jost and Kay 2010; Wagstaff 1994). Consider, for example, the common effort-luck dichotomy on which many economists ground their measures of whether survey respondents consider an outcome deserved—the result of personal toil and sacrificed utility—and on which they base their tax, welfare, and redistribution policy prescriptions (e.g., Alesina and Giuliano 2011, and citations therein; more on this later). These researchers suggest that this distinction gets to the heart of justice, and they impose that philosophical bias on their subjects by applying a moral label like “deserved” to subject responses where none was present, and most—along with myriad social psychologists, neuroscientists, etc.—eschew that critical label altogether. Instead, they favor, confuse, and conflate related but distinct terms including “just” and “fair” (Greenberg 2011, 271), “just” and “altruistic” (e.g., Decety et al. 2015), and “fair” and “equitable” (e.g., Starmans et al. 2017).⁴ All of this in the face of ample evidence from sub-fields and neighboring disciplines that desert and its related concepts take on local flavors, and are thus unlikely to be captured in a universal measure (Westermarck 1906; Young 1995; Elster 1992; Binmore 2011).

Rather than take the relationship for granted and ascribe belief in it to entire peoples, I use a national survey to determine whether and to what degree different segments of the American population consider personal responsibility a key ingredient of economic desert. I find that Americans generally want peoples’ economic

³ Conservative Protestant writers often take a three-pronged approach to the question of female economic activity. As practical but secondary matters, they encourage women to consider whether and when employment is beneficial or detrimental to themselves, and to society broadly, but at root is the idea that economic matters are the purview of God and husbands, to whom women submit (Sherkat 2000). Similarly, farmers take into account environmental, legal, and economic factors when apportioning their farmsteads, but even land-hungry farmers will stay their financial interests and not bid on acreage that is “inappropriately” available for purchase on the market (Rogers and Salamon 1983, 545). In both examples you see moral notions of deservingness alongside more apparent, baser-seeming manifestations of self-interest. I say “more apparent” and “baser-seeming” because I will argue momentarily that, as social institutions, desert and related moral considerations are themselves observed, in part, out of self interest.

⁴ Fong (2001) is a laudable exception on all counts.

standing to be determined by factors over which individuals (think they) exercise control. This desire is apparent across Americans of all backgrounds, but it is expressed with varying levels of conviction and with a handful of exceptions, two of which stand out. First, there is widespread disagreement over which determinants of economic standing people control. Respondents are split on whether and to what degree individuals are responsible for their intelligence, creativity, health, and educational pedigree. Despite this schism, respondents are predominantly comfortable with the first two influencing people's economic wellbeing, but disagree over the role that the latter two should play. Second, neoliberals—for whom economic growth is a paramount concern—are much more likely to assign personal responsibility a deflated role in their definitions of economic desert. The more staunchly neoliberal a respondent, the more closely she associates economic desert with marketability and productivity, which may mean an expanded moral role for factors over which we have little or no control.

In the course of my analysis, I try to avoid the two missteps I mentioned earlier. First, I am careful not to imbue moral significance to data where none necessarily exists. All relevant survey questions have an explicit normative or utopian component. Second, I take pains to explain why desert, specifically, should be of interest to economic, social, brain, and policy scientists. In addition to its academic relevance, understanding how different people define economic deservingness has real-world import. If you believe that someone (including yourself) is enjoying undeserved economic resources, or is going without resources she deserves, then there exist moral grounds to redistribute those resources. Moreover, the importance you attach to personal responsibility will influence your preferred means of redistribution—whether they allow third party intervention, for example (Bower-Bir 2018). In short, American definitions of economic desert hold personal responsibility in a more or less central position, with a few telling deviations. Before exploring Americans' economic attitudes toward responsibility, I first define and outline the conceptual relationship between it and desert.

2 Key concepts

2.1 What is desert?

In its most forceful construction, *justice* is getting what one deserves, and *desert* (or the more cumbersome 'deservingness') is the quality of meriting some treatment, responsibility, or good (e.g., Feldman 1995c; Rescher 1966; Sidgwick 1962; Hospers 1961; Mill 1957). Recipes for desert have three basic ingredients: a deserving *subject*, a deserved *object*, and a desert *basis* (Feinberg 1970; McLeod 2013). Together, these three elements identify who deserves what, on what grounds. A

process is just, therefore, if it delivers deserved objects to deserving subjects because of a desert basis (or bases). Or, if you prefer to focus on outcomes, the distribution of a deserved object is just if that object is held by all deserving subjects and only deserving subjects, identifiable as deserving because they meet a desert basis (or bases).⁵

Although desire for justice is a staple of human psychology and conduct (Haidt and Joseph 2004), there is no universal desert basis on which to apportion a given object. Aristotle (2002, 162) bemoaned the lack of consensus surrounding desert bases over 2000 years ago. “[E]verybody agrees that what is just in distributions must accord with some kind of merit, but everybody is not talking about the same kind of merit [...]” Marx similarly sensed that calls for justice, absent a common conception of desert, might retard labor’s cause or even aid the capitalist status quo and so focused instead on collective self-interest and historical analysis (Jost and Kay 2010). There is no universal desert basis for a given object because desert is a *social institution* (Bower-Bir 2014; Binmore 2009, chap. 2) shaped, like the rest of our moral notions, by evolutionary forces (Binmore 2011; Mackie 1977). Violating institutional boundaries is expensive. It comes with external, community-imposed costs such as angry glances, verbal scolding, ostracism, etc., and internal, self-imposed costs such as guilt (Crawford and Ostrom 1995). Institutional economists often refer to these costs as ‘delta parameters’. Delta parameters give institutions their force; they are the social and psychological bite behind the moral bark (Bower-Bir 2017).

If repeated human interactions fashion an individual’s and society’s definition of desert, then what counts as deserved will vary with context and culture (Binmore 2011). That is exactly what we see in the field (Elster 1992; Young 1995; Westermarck 1906). Add to this already intricate arrangement the psychological dimension of moral concepts (e.g., Haidt and Joseph 2004), and the host of factors political and biographical that lead people to hold different avenues to economic success or failure in varying levels of esteem (e.g., Schneider and Ingram 1993), and we can reasonably expect a fair amount of variation in the definition of economic desert among communities and the individuals that constitute them.

For the purposes of my investigation—and for reasons I detail in the coming section—the myriad conceivable desert bases can be aligned along a single dimension measuring an individual’s control over the criteria’s presence or absence from her character or situation. For a deserved object, I will look at economic station—how rich or poor or in-between a person is. You may think a colleague deserving of financial success on account of her superior interpersonal skills, and you may think your boss undeserving of success because of her sluggishness at work. But to what degree can your colleague be held personally responsible for her upbeat demeanor and your boss for her persistent tiredness? A person cannot logically be applauded for her accomplishments or panned for her disappointments if she played only a minor part in their production, but logic and morality are tentative bedfellows. There are many ways to get ahead and fall behind, some of which can be pinned on the player and some of which cannot. The

⁵ I will stick to the singular “basis” when speaking in general, but please keep in mind that there can be multiple desert bases. Similarly, I may write of deserved *objects*, but am referring to rewards, punishments, treatments, and responsibilities apportioned on specific conditions of worthiness.

relevant difference between these paths is the degree of choice an individual (apparently) has in walking them. The difference is responsibility.

2.2 What is responsibility and its relationship with desert?

Like desert in the wild, *responsibility* in the academy comes in many flavors (e.g., role, causal, capacity, liability, collective, prospective, retrospective, substantive, attributive, and complicitous responsibilities, to give you a taste). Some of these responsibilities have overlapping components. Common to all the notions of responsibility that I address in this paper is the *control principle*: the idea that a person can be responsible only for those behaviors and attributes over which she has control (Husak 1987; Perry 2001). This is an immediately familiar idea to anyone who has interacted with people not in their right minds or facing a dire situation that was thrust upon them. Similarly, some people are duty-bound to act a certain way, or confront situations where all choices appear to yield uniformly happy or sad outcomes. We generally temper or withhold praise and blame of others for behaviors that are either detached from their choices, or are the result of choices they could not reasonably make otherwise (Kutz 2004).

This control-based, authorship conception of responsibility is philosophically underspecified, plagued by at least one overriding metaphysical problem, and casts the chief player in that problem—free choice—as a central assumption. If responsibility requires humans to choose among a set of options in any given situation, then it “seems to require a kind of freedom unavailable in the world we inhabit,” either because our choices are determined by antecedent events or they are fundamentally probabilistic and therefore indeterminate (Kutz 2004, 553).⁶ That philosophers have more fully specified accounts of responsibility and are able to resolve (or cleverly avoid) the conundrum of free choice in those accounts is reassuring, but besides the point. What matters here is: free choice as a requirement for responsibility is an “intuitive axiom” (Kutz 2004, 553), one that is deeply appealing and hard to shake. Indeed, our assumed status as freely choosing agents is bedrock for most peoples’ self-conceptions, and many of the social institutions we erect are meant to structure the options we as putative free agents face.

Control’s assumed centrality to responsibility is the first of two steps leading to this paper. Responsibility’s assumed centrality to desert is the second. That desert is a *personal* phenomenon is a generally settled matter: “the facts which constitute the basis of a subject’s desert must be facts *about that subject*” (Feinberg 1970, 59). Some philosophers press further, until deservingness presupposes responsibility, lying only in those attributes and behaviors for which a person can claim credit (Pojman 1997; Rachels 1978; Rawls 1971). Divvying an object along desert bases outside an individual’s control would, accordingly, be unjust. Moral philosophers

⁶ Lowe (2002, 201–202) addresses both concerns and is especially clear regrading determinism, the debate over whether agency (i.e., the meaningful authorship of actions) is compatible with a naturalistic conception of human beings, or whether it is reducible to event causation. Carnap (1966, 221–222) provides a brief and helpful explanation of indeterminacy’s relationship with free choice and human behavior.

call this assumed intimacy of control with responsibility, and of responsibility with desert, *retributivism*, and it has carried over into the social sciences with important empirical results.⁷ People are relatively comfortable discriminating against others when the grounds for discrimination are qualities supposedly within our personal jurisdiction (e.g., Crandall and Martinez 1996; Puhl and Brownell 2003; Quinn and Crocker 1999), they label as more just those social, economic, and political systems that distribute resources on similar grounds (Jost et al. 2003), and they are more open to redistribution of resources when the initial disbursement appears a product of external, capricious forces (e.g., Alesina and Giuliano 2011; Fong 2001).

That researchers find people tend toward a retributive view of justice in so many scenarios is interesting and important, but also problematic. Retributivism is how the researchers cited above conceive of justice. They design measures to look for its effects in peoples' behaviors and opinions, and they associate their measures with justice (or fairness, or whatever term they have chosen) broadly. Other scholars may start with a flexible, open-minded definition of justice, but when they uncover evidence that one conceptualization and its measure has a scientifically defensible relationship with the dependent variable under study, that evidence serves as much to advance a particular definition of justice as it does a better understanding of the question at hand. For example, economists have conceived of and tested many versions of what they call 'fairness' that, in isolation, influence a person's tolerance for redistribution, but the perceived prevalence of getting ahead through personal effort (which we supposedly control) over luck (which we by definition do not control) is one of few to maintain statistical significance when tested alongside alternative notions and with relevant control variables. Competing and complimentary notions of fairness, offering little leverage on the question of popular support for progressive taxation and redistribution, fell into disfavor and—among scholars who were not already convinced of the association—the effort-luck dichotomy was increasingly associated with fairness writ large, to the point that the two are nearly synonymous in the dominant literature (e.g., Alesina and Giuliano 2011; Alesina and Angeletos 2005; Alesina and La Ferrara 2005; Fong 2001).

A similar example comes from psychology, where researchers once measured (though not necessarily in the same paper) subjects' assessment of both distributional and procedural fairness, taking pains to determine when and for whom these related, sometimes overlapping, notions of justice influence opinion and behavior. The relative importance of specific distributional and procedural concerns depends on a host of variables, including the object being allocated, the intimacy of the group doing the allocating, and the perceived formality of the situation (see Greenberg 2011, and especially Jost and Kay 2010, for overviews of this expansive literature). As a simple illustration, strict egalitarians will care little about allocation procedures because what matters for them is distributional equality among members of some specified group. Their desert basis is binary; you either qualify or you don't. If, however, you

⁷ "The fundamental idea of retributivism is that responsibility is a moral property of agents that consists in or supervenes upon underlying facts of agency and upon agents' connections to the world. Such facts uniquely determine the moral desert of the agent [...]" (Kutz 2004, 550).

are operating within a community that has a non-binary definition of merit, then equity—a matching of inputs, such as hours worked, with outputs, such as pay—may matter more than any competing desire for outcome equality, and the actions, processes, and procedures leading to a distribution will be of fundamental interest.⁸

A handful of scholars question the distributional-procedural distinction altogether (e.g. Ambrose and Arnaud 2005; Bower-Bir 2014; Wagstaff 1994), and many find that the two interact to shape a person's response to outcomes both favorable and unfavorable (e.g., Tyler and Smith 1998; Brockner and Wiesenfeld 1996; Brockner et al. 2003). But meta-analyses suggested that “justice appraisals are determined at least as much, if not more, by the perceived fairness of procedural versus distributive factors”, and “researchers have not looked back since” (Jost and Kay 2010, 1140). Over the past few decades, research on procedural justice has far outpaced research into other forms of justice that psychologists once recognized, to the point that psychologists have come to use the once expansive term ‘fairness’ in place of the relatively narrow notion of ‘equity’, specifically an equity rooted in effort, skill, and other responsibility-heavy attributes (e.g., Starmans et al. 2017). This may be, in part, a reasonable linguistic shortcut given equity and effort's intimate relationship with markets and the American dream (e.g., Deutsch 1975; Lerner 1974; Tyler 2011), which are often the focus of psychological research into inequality. Nonetheless, tacitly equating a previously expansive term with an increasingly specific vision thereof can have far reaching, real-world consequences.⁹

The fact that a particular version of a variable produces a statistically significant effect or yields accurate predictions does not mean it is a theoretically defensible measure of its underlying concept, or that it captures the concept in its entirety. The effort-luck dichotomy and related concepts of equity and procedure are undoubtedly important to redistribution preferences, but personal responsibility is one of myriad dimensions along which definitions of desert can vary, and—as I show in this paper—people's commitment to that dimension varies widely.

2.3 Relaxing responsibility's connection to desert

Might there be occasions where, or communities for whom, responsibility's connection to desert is tenuous or nonexistent? By tacitly associating deservingness with

⁸ Although usually reserved for discussions of equity, particularly in market settings, ‘merit’ also applies to matters of equality. This is because merit is simply another term for desert basis (or bases), one that usually is meant to convey some quality or characteristic that can be measured in ordinal or continuous terms. An egalitarian may say that everyone deserves an equal share of national wealth, which seems to ignore merit altogether. In fact, the criteria that make someone meritorious in this egalitarian's eyes are probably (1) being a human, (2) adulthood, and (3) citizenship. These are her desert bases, and they are sufficiently universal that she did not bother to state them. Moreover, they are usually conceived of in dichotomous terms, although you could distinguish between shades of adulthood and citizenship, and even person-hood (Hofstadter 2008). Conversely, what may appear an inclination towards equality may actually be an exercise in equity, wherein “the scrutineer perceive[s] the relevant inputs to be equal” (Reis 1984, 39). See Bower-Bir (2014, chap. 2, 2020a) for an extended discussion.

⁹ Think of the seemingly innocent conflating of the formerly broad ‘interest’ with the narrower ‘material wellbeing’, which was crucial in the academic, and eventually the social, triumph of capitalism (Hirschman 1977).

personal causation, as economic, social, and brain scientists often do, we lose sight of a great many desert bases over which people hold no sway. People can reasonably debate whether a person exercises control over a given quality, but some folks will endorse an economic desert basis knowing full well that we have no control over it. There are plenty of situations wherein desert and responsibility have little overlap, and not all desert bases outside our control are opportunistic in their relations with justice (Cupit 1996, 1999; Feldman 1995b; Feldman 1996). A bystander unwittingly caught in and injured during a calamity might be recognized as due financial compensation for her suffering. Indeed, it is in part her innocence—her lack of responsibility—that makes her deserving of compensation (or reparation, depending on the circumstances).

Other real-life desert bases fail to meet traditional control-based criteria, taking us into fraught territory. Race, sex, parentage: we need not get overly creative in our search for bases of economic desert that leave no room for responsibility, nor need we look to history to see their effects. That some people might use these attributes as determinants of economic desert will strike most readers as repugnant. That is rather the idea. As evolved, community-sanctioned institutions, definitions of desert will vary. Some people treat a person's biological sex as a basis for economic desert to the point that they think women lack a moral claim to economic objects, or are themselves objects to be deserved (Peek et al. 1991; Sherkat 2000). Others (myself among them) consider a person's sex morally irrelevant to economic deservingness and thereby view any withholding of economic standing to people on account of their sex as an injustice.

I am not saying that these viewpoints are on equal normative footing or otherwise advocating moral relativism. Quite the contrary, I think the argument for excluding sex as a basis of economic desert (i.e., sex is neither salient to economic productivity, generally, nor is it entirely a product of personal choice) is superior to the reasoning commonly cited for positioning sex as an economic desert basis (e.g., a literal interpretation of Corinthians 1:11 and Paul's letter to Titus 2:3–5; see Sherkat 2000, 345–347). But normative superiority and logical argumentation matter little to the empirical question before us, namely: how critical a role does personal responsibility play in peoples' definitions of economic desert? The sex-as-desert-basis, however maligned by outsiders, carries for literalist Christian evangelicals (among others) the full weight of justice. Their members will sanction other members for not observing relevant norms and rules, further inculcating those norms and rules so that members police themselves and others (Ostrom 2005).

Theorizing on the origins, and measuring the proliferation, of desert bases is a scientific undertaking. Many capable researchers have used (and mis-used) justice and related concepts to explain myriad behavioral, social, and policy issues. They have not, however, been sufficiently critical of those concepts when wielding them. Researchers assigning or assuming a significant role for personal responsibility in desert is understandable, but their foisting that assumption on the people they study is unacceptable. Better to measure the degree to which everyday individuals make those assignments and assumptions, seeing what justice means to them on this important, but not sole, dimension of economic desert.

2.4 A confusing confluence of thought but not language

One prominent view of responsibility bumps right up against my approach to desert, but in so doing it confuses as much as enlightens. In his attempt to circumvent the metaphysical thicket of free choice, Peter Strawson (1962) focused on how we deem and hold one another responsible *in practice*. Context, affect, and social norms are paramount in his eponymous approach, just as they are in the Natural Justice tradition from which I draw (e.g., Binmore 2011). So deep is the connection between Strawsonian ‘responsibility’ and Natural Justice’s ‘desert’ that the two terms are nearly interchangeable. Legal philosophers essentially use the former term where I (and most native speakers, I suspect) would use the latter. For proponents of Strawson’s view, “to be responsible is for certain responses to be warranted, in virtue of what one has done” (Kutz 2004, 553). Proponents of the Strawsonian view avoid using the word ‘deserving’ here because they do not want to carry the extra baggage that is in some philosophical circles associated with “the traditional ambitions of the desert model”, (Kutz 2004, 558) whereby thinkers prescribe the bounds of what treatments a given behavior might warrant.

My approach suffers from none of those ambitions. My use of the term is meant to capture only the three desert ingredients and how they change across contexts and communities. As such, Strawsonians will find “nothing objectionable about [my] use” of the term, whereby an “agent ‘deserves’ multiple and varied responses from different people [... and] ‘desert’ just means that some response (or set of responses) is warranted on some ground” (Kutz 2004, 558). My usage allows the terms ‘desert’ and ‘responsibility’ to take on their everyday meanings, freeing the latter to assume its more common control-related connotation that is the focus of this paper. The concept of desert can also get tangled with closely related legal/political/moral notions including rights and entitlements. Please see Bower-Bir (2020) and Bower-Bir (2014, chap. 2) for a discussion on how to unsnarl these ideas, and to see how desert interacts with self-interest.

One additional distinction worth noting: whereas the Strawsonian view anchors responsibility/desert *in*—or as an expression *of*—local norms, the Natural Justice tradition approaches desert *as* a norm, or some other institutional variant such as a rule.¹⁰ With these caveats in mind, we can return to the question at hand. Whether and to what extent different people associate personal responsibility with economic desert.

3 Is responsibility critical to definitions of desert?

Any number of characteristics may serve as desert bases, varying with situation and judge. We are not interested in the specific bases themselves, but in how closely they incorporate personal responsibility. If agency is a critical component of economic

¹⁰ See Crawford and Ostrom (1995) for an untangling of institutional types. Norms and rules are especially relevant because they have a deontic built into them and thus take on a moral flavor.

desert, then people's preferred desert bases should be qualities over which we have control, or at least qualities over which we think we have control. I find that this is generally the case, though there are a few exceptions. Respondents are divided on and largely unsure of the control people wield over their intelligence, creativity, health, and educational pedigree, but most respondents want the first two of these factors to serve as bases of economic desert.

3.1 Sampling

I hired Internet-based panel SocialSci to recruit respondents for my national survey. Such panels provide the best balance between cost and sample representativeness (Clifford and Jerit 2014) by using a three-stage randomization procedure, which helps ensure a representative sample of the target population (in this case, adult Americans). Survey managers randomly invite panel members to sit for a random set of profiling questions and, upon completion, match panel members with a random selection of surveys and experiments for which they are likely to qualify. SocialSci provides large, diverse, carefully managed, and externally audited panels from which samples are drawn. Enrollment in a panel and participation in surveys and experiments is remunerated in a way that attracts even hard-to-reach groups within the population (e.g., seniors, low-income earners, ethnic minorities, etc.). As always, there may be latent variables common to people willing to volunteer for survey and experiment participation that make them different from the broader population.

SocialSci administered my survey to 1000 adult American respondents. That company maintains a participant pool in several countries, and these pools are specifically intended for academic survey research. Their vetting system tracks participant responses over time and across studies, removing from the pool participants whose demographics inexplicably fluctuate. For completing my survey, which took around 18 minutes on average, respondents were awarded 50 "points" (about \$0.83). SocialSci participants can accumulate and then redeem points for Amazon gift cards, or they can donate their earnings to scientific organizations such as the Public Library of Science. Of the 1000 respondents surveyed, 992 completed the survey within a reasonable timeframe. Table 2 in Appendix 1 shows the demographic breakdown of my survey sample. Population totals are also shown to provide a sense of the survey's external validity.

The distribution of household income in my survey sample is remarkably close to the national distribution. Females, college graduates, whites, Asians, and political independents are overrepresented. Males, people with only a high school diploma or less, Latinos, and Republicans are underrepresented. So that the standard errors in my subsequent analyses account for under- and over-recruitment from various sub-populations, I calculate sampling weights using a raking weight-calibration

process.¹¹ My final weights are based on five stratification dimensions: gender, education, race, household income, and political party identification. The marginal distributions of each dimension in the U.S. population serve as control totals, toward which sample margins converge over the stepwise process. All analysis of my survey data is done with sample weights so as to have robust standard errors and be generalizable to the American public.

3.2 Data

Respondents to my survey saw 15 factors, each of which might have some bearing on an individual's economic standing. They answered two questions about each factor: "How much control do you think people have over this factor?" and "How important *should* this factor be in determining whether people get ahead or fall behind economically?" When answering the second question, respondents were provided a clarifying prompt in slightly smaller font: "That is, how important would each factor be to economic standing in your *ideal society*?" For questions on control over a factor, respondents could choose from five unnumbered responses: "total control", "a great deal of control", "some control", "little control", and "no control". For the questions on the ideal importance of a factor, respondents could choose from seven unnumbered responses: "very important", "important", "somewhat important", "neither important nor un-important", "somewhat un-important", "un-important", and "very un-important". The 15 factors have been arrayed in ascending order of their mean ideal importance to economic standing, bottom-to-top in Fig. 1 and left-to-right in Fig. 2.¹²

The difference between varying levels of ideal "un-importance" has little practical meaning, but potentially great symbolic meaning. Factors that rate anywhere between "neither important nor unimportant" and "very unimportant" are meant to have no bearing on peoples' livelihoods in a respondent's ideal society. The magnitude of these negative ratings, however, may signal the level of distaste a respondent has for a given factor as an economic determinant. For example, Figs. 1 and 2 suggest that, on average, respondents consider race and gender especially repugnant criteria by which to apportion wealth. Respondents are generally more relaxed about the role of family stability, parental education, and the prevailing state of the economy in our economic fates. Although ideally of no economic importance, the average respondent is not as outraged at the prospect of these factors influencing our livelihoods compared to race and gender.

Together, these two measures give us an idea of whether a respondent considers a given factor appropriate grounds for moral appraisal and reward by virtue of the control we have over it. Future investigators should consider adding a third question about the perceived saliency of each factor to economic productivity. They could use

¹¹ Alternatively known as "iterative proportional fitting" and "sample-balancing."

¹² Figure 2 shows density curves of perceived control over economic factors and their ideal importance to economic standing plotted on the same axis. The space under each curve defines 100% of all probabilities. The percentage of this area between any two points along the curve coincides with the probability that an observation falls within those bounds.

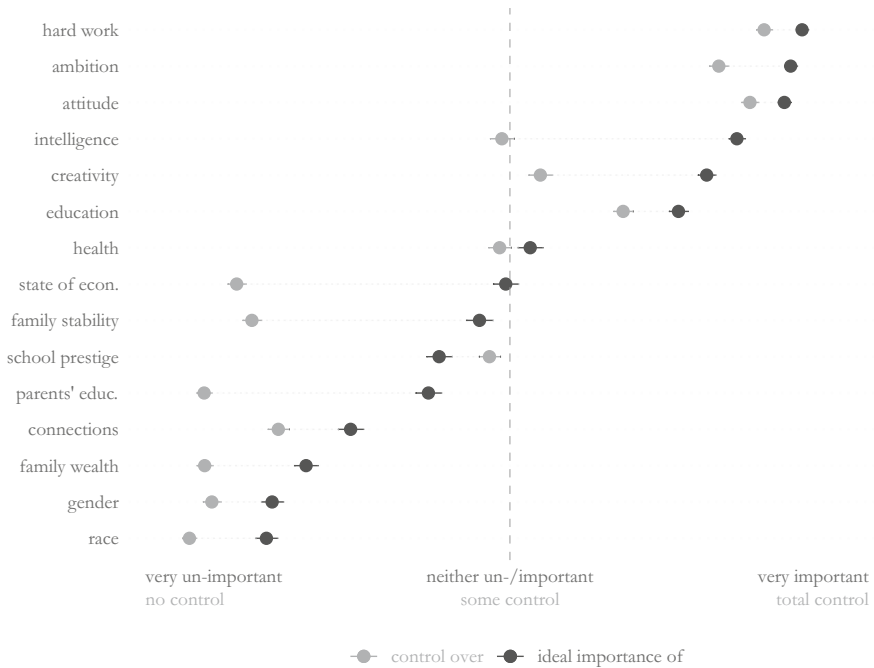


Fig. 1 Mean perceived control over economic factors and their mean ideal importance to economic standing, with 95% confidence intervals

this measure to weight subject responses to the first two questions, focusing on those factors that a respondent believes has some generative—rather than moral—bearing on the economic enterprise. Because I do not have data on a factor’s perceived market saliency, I pay equal attention to each of the fifteen factors.

3.3 Analysis, by factor

Looking at mean responses for each factor in Fig. 1, the standard responsibility-desert association appears well founded. Less so when examining distributions in Fig. 2, where you can see widespread equivocating among, and disagreement between, respondents as to our control over, and the ideal importance of, several of the factors. The true test of the relationship, however, requires looking beyond aggregate measures and seeing how closely the two measures track for each respondent. Doing so shows that the correlation between measures of control and ideal importance vary across factors and are generally muted. These twin findings go against the common economic assumptions that personal control and ideal importance are consistently and strongly correlated in peoples’ minds.

Figure 3 presents—visually and numerically—the varied albeit generally tepid control-importance correlation. Visually, the heatmaps comprising Fig. 3 plot individual responses to the control question on the horizontal axes against individual

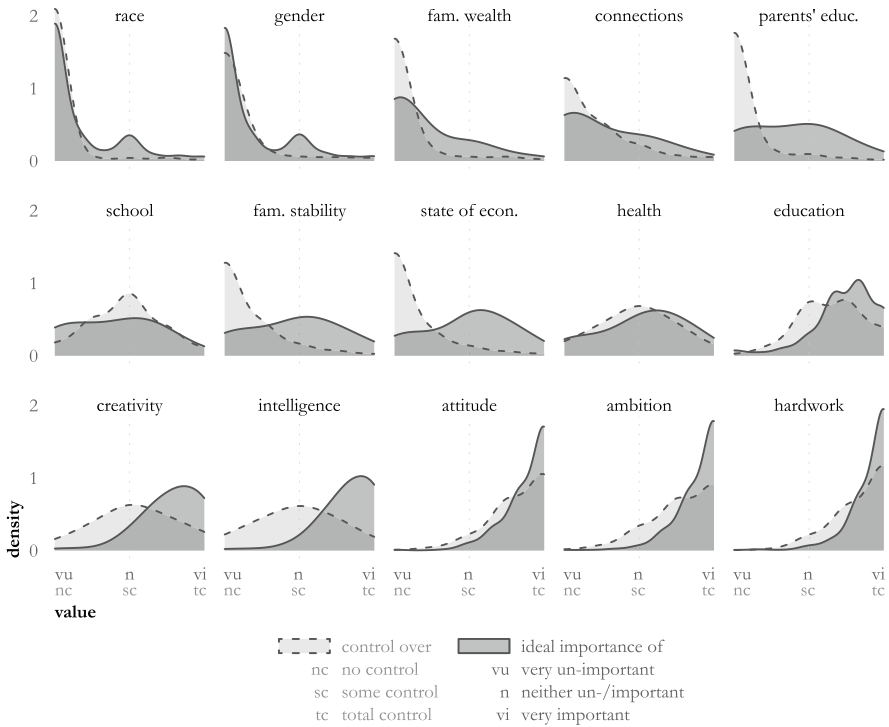


Fig. 2 Density plots of perceived control over economic factors and their ideal importance to economic standing

responses to the ideal importance question along the vertical axes. The shade of each tile shows the percentage of respondents whose answers fall in the corresponding intersection of the horizontal and vertical axes. The darker the tile, the more respondents who gave that combination of answers. If respondents associate personal responsibility with economic desert, their responses would be located in the tiles going diagonally from the bottom-left to the top-right of the heatmaps, indicating a strong, positive correlation between the two variables for a given factor. Most factors have sizable off-diagonal response combinations.

Numerically, the degree to which respondent answers tracked for each factor can be read in the correlation coefficient r above each heatmap. The heatmaps have been arrayed so that factors are displayed in ascending order of control-importance correlation. The correlation coefficients are all positive, but they range from “weak” (around 0.20) to “moderate” (around 0.50). Nor are these tepid correlations artifacts of the “un-important” response options from the ideal-importance questions. Those responses can be combined into one category—“ideally not important”—truncating the variable’s range and undoing any diluting effect it may have on the correlation coefficients, as shown in the Fig. 4 heatmaps. Doing so boosts the correlations, but meagerly. Even at its strongest, the control we exercise over a factor and its ideal

importance to economic standing are only loosely associated and still range from weak to moderate.

Understanding what paths to economic standing respondents' consider acceptable and unacceptable can be more clearly appreciated by looking holistically at (1) the degree of respondent consensus on the control question for each factor, (2) the degree of respondent consensus on the ideal-importance question for each factor, and (3) how closely respondents associate personal control over a factor with its ideal importance to economic standing. Figure 5 shows all three simultaneously by plotting each factor in a specific quadrant and at a specific distance from the origin. The quadrant a factor occupies indicates whether there is general agreement or disagreement among respondents as to whether we have agency over that factor (right or left half of the graph), and whether the factor ought to be important to economic standing (top or bottom half of the graph), both of which can be inferred from Figs. 1 and 2.¹³ A factor's distance from Fig. 5's origin represents the value of its control-importance correlation coefficient r . Specifically, I use the mean of the r values shown in Figs. 3 and 4. Note that all correlation coefficients are positive, regardless of direction from the origin. In the coming paragraphs, I examine each quadrant and make note of the strength of control-importance correlations in each.

3.3.1 Agreement on both control and importance, weak to moderate correlations

Respondents are overwhelmingly prone to say that ambition, hard work, and attitude are under an individual's control.¹⁴ So, too, are respondents overwhelmingly apt to say that an individual's economic wellbeing should be determined by her ambition, willingness to work hard, and attitude.¹⁵ Despite the widespread agreement on both questions, responses for these factors are only moderately correlated, with the coefficients for attitude dipping into weak territory. Future researchers might want to investigate whether respondents actually believe these qualities to be so thoroughly in our control, or if they simply recognize them to be among those qualities that are as much within our control *as is possible*.

Responses for education exhibit a significantly weaker correlation. The majority of respondents believe, but are more subdued in their conviction, that educational attainment is within our control. Accordingly, they are generally okay with, but not quite as emphatic that, education play a role in peoples' economic fortunes, a stance that may be buoyed by education's influence on economic productivity.

Survey responses for race, family wealth, social connections, and gender are also positively albeit moderately correlated. Respondents widely consider these factors

¹³ Quadrant assignment is a fundamentally subjective exercise and I invite readers to scrutinize my categorization by interrogating Figs. 1 and 2. There exist statistical measures of consensus and dissension for ordinal data (e.g., Tastle and Wierman 2007). Interested researchers could propose thresholds for such measures, although setting those thresholds would be arbitrary and quadrant assignment would remain a fundamentally subjective act.

¹⁴ In Figs. 3 and 4, the darkest tiles are in the *rightmost* columns of the relevant heatmaps. In Fig. 2, the bulk of the area under the *dashed* curves are to the *right* of the center lines in the relevant density curves.

¹⁵ In Figs. 3 and 4, the darkest tiles are in the *uppermost* columns of the relevant heatmaps. In Fig. 2, the bulk of the area under the *solid* curves are to the *right* of the center lines in the relevant density curves.

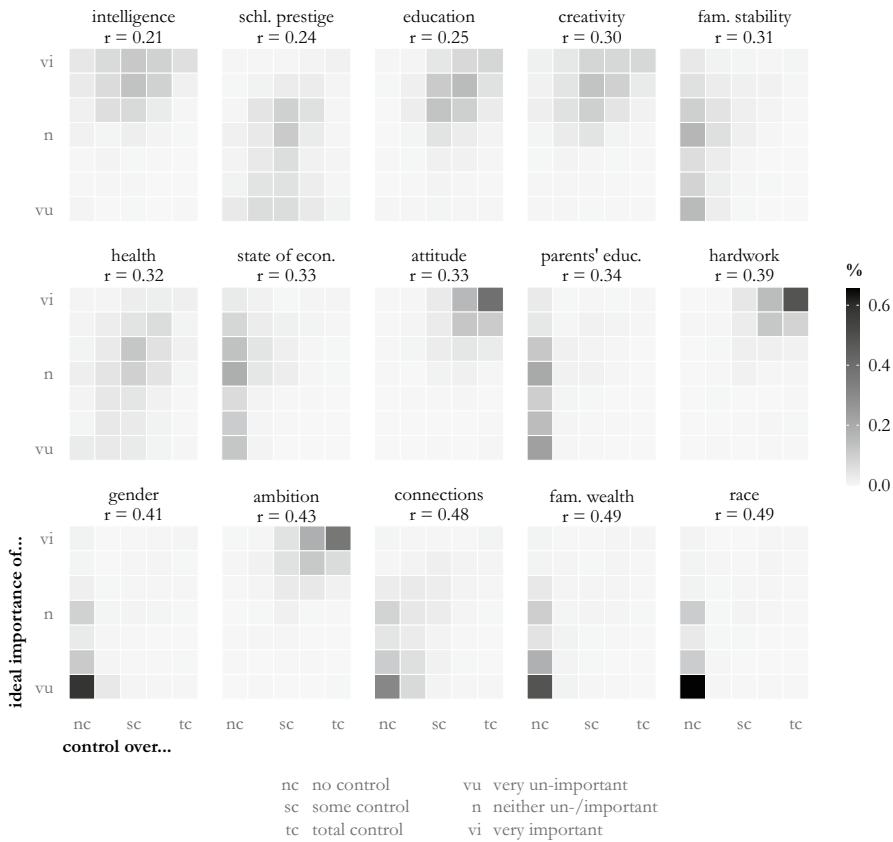


Fig. 3 Heat maps of perceived control over economic factors versus their ideal importance to economic standing

to be well outside their control and generally want them to have no bearing on economic wellbeing. Because most survey respondents refrain from overt expressions of racist and sexist sentiments, my measures probably underestimate support—conscious and unconscious—for basing economic reward on skin-color and gender (Sniderman and Carmines 1999). Still, respondents recognize people’s lack of influence over such qualities. Future researchers might investigate whether a more accurate measure of race and gender’s ideal importance will nonetheless show it to be broadly unpopular.

As with race and gender, the majority of respondents recognize family wealth and social connections as chiefly external factors that should not play a role in determining individual economic status, although the bulk of responses are more widely distributed in the negative ranges of the axis signaling an aversion to, but perhaps less disdain for, these factors. Although you contribute to and solidify (or maybe drain and alienate) your family’s coffers and social connections in the long-run, your ability to do so is itself determined by your family’s pre-existing wealth and contacts, which can confer considerable albeit unearned advantage (Bowles et al. 2005).

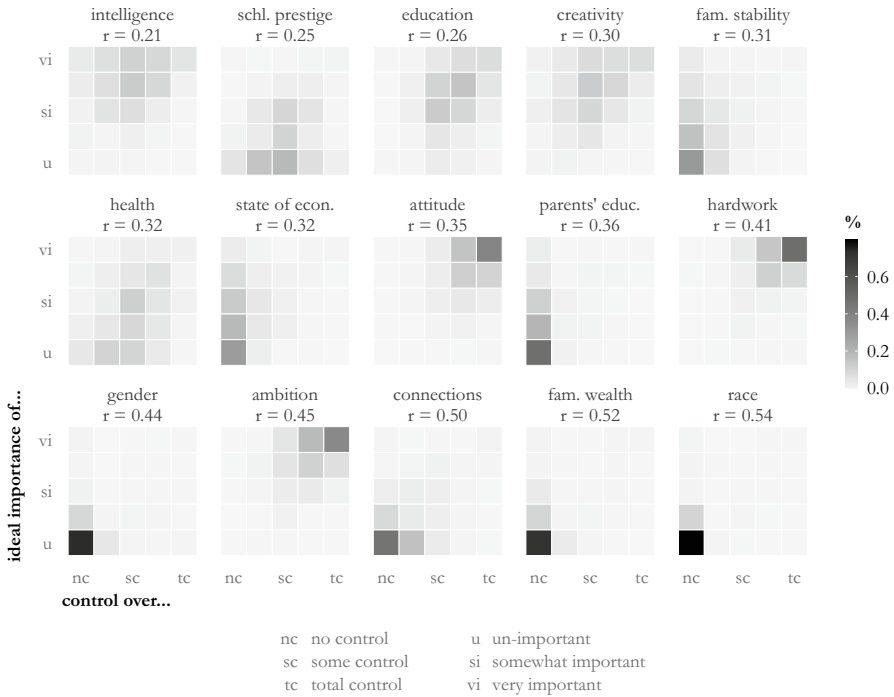


Fig. 4 Heat maps of perceived control over economic factors versus their ideal importance to economic standing, truncated

3.3.2 Disagreement on both control and importance, weak correlations

Health and prestige of schooling are interesting in that respondents are near equally divided as to both our control over, and the ideal importance of, those factors. In Fig. 1 it looks as though respondents might be taking noncommittal positions, but Figs. 2, 3, and 4 show there is actually deep disagreement on questions related to these factors. Moreover, despite the shared symmetry of the distributions, the control-importance correlations are sufficiently weak that you see several respondents creeping off the expected diagonal and into the northwest and southeast quadrants of their heatmaps.

As for why people disagree over, or opt for a middle position on, our control over these factors: a person’s day-to-day and longterm health is itself influenced by behavioral factors like diet and exercise, and our approach to those is influenced by dedication and effort (over which we apparently have control) on the one hand, and the cultural and economic class into which we are born on the other. Moreover, many aspects of health are congenital and/or inheritable. For prestige of one’s schooling, getting into prestigious boarding schools and universities may require hard work, but it also requires smarts (over which we exercise questionable control), and is greatly aided by family connections and wealth such that most colleges—especially elite

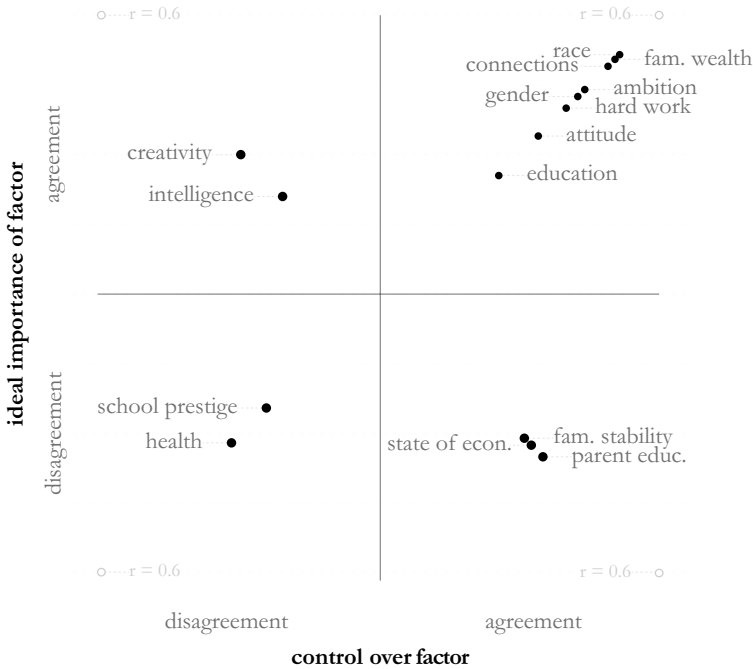


Fig. 5 Factor consensus and correlation summary chart. Quadrant placement indicates whether respondents generally agree or disagree on our control over factors and on the ideal importance of factors to economic standing. Distance from origin equals the mean correlation coefficient of the two

colleges—are remarkably *unrepresentative* of the nation in terms of student race and income (e.g., Chetty et al. 2017).¹⁶

As for why some people think health and school prestige should matter to economic position, even if we are not entirely responsible for them: a person’s health is obviously tied to their economic potential; a sick worker cannot work. For prestige of one’s schooling, you would have to believe that prestigious schools actually bestow a superior education or some other productive advantage than their less eminent peers. Such schools may bestow an edge to their students in terms of business

¹⁶ Elite university administrators and alumnus do not necessarily consider this a problem. Ivy League schools and Co. (and to a lesser degree, flagship public research universities) have, over decades and by design, positioned themselves as selectors of the “meritorious” national (and state, and industrial) elite (Lemann 1999). This new elite is preferable to the Episcopacy it overthrew in that it *can* draw ranks from the broader population, but elite selection remains the paramount goal and the self-tasked universities are only so willing to ally that goal with related but secondary objectives like underclass upward mobility.

contacts and the like, but this advantage accrues private dividends to the lucky student¹⁷ and does not necessarily result in any public gain.¹⁸

3.3.3 Agreement on control, disagreement on importance, weak correlations

Respondents overwhelmingly recognize our lack of control over the next three factors—parents' education, state of the economy, and family stability—but they are divided on their acceptability as determinants of economic wellbeing. That many respondents want these factors to influence personal economic wellbeing despite their external nature may in part be a realistic perspective that, like it or not, prevailing economic conditions will affect everyone to some degree, and that the parents and home situation to which we are born will influence myriad aspects of our life, right down to our personality. More may be going on here than pragmatic resignation. For state of the economy, respondents may be expressing a “we’re all in this together” sentiment, meaning nobody is so special that they should be insulated from the vagaries of the broader economy. And rather than merely acknowledging the connection, by wanting and directly tying children’s economic prospects to their progenitors’ education and parental responsibilities, these respondents might be advocating for an incentive structure that motivates people to care about these factors for reasons beyond (and perhaps more powerful than) self-interest, narrowly construed. My findings on these three factors, and tests of my explanations for them (and others I have not thought of) strike me as fruitful topics for future inquiry.

3.3.4 Disagreement on control, agreement on importance, weak correlations

A plurality of respondents are milquetoast as to whether creativity and intelligence are matters of individual responsibility, while the rest are largely at odds with one another on the issue. The majority, however, are agreed in the rightness of those qualities regulating individual welfare, uniformly inclined to want creativity and intelligence to help determine economic status. I suspect that this phenomenon is a result of the obvious market value intelligence and creativity have in a modern service economy, and the positive social externalities they produce beyond market measures.

3.4 Analysis, by respondent

In the preceding section, I calculate *for each of the fifteen determinants of economic standing* (aka “factors”) the correlation between (1) perceived control over a given

¹⁷ Mounting evidence, however, indicates that which and what type of college you attend (e.g., liberal arts, large research, public, private, Ivy, etc.) matters little for your longterm success and satisfaction (Gallup and Purdue University 2014).

¹⁸ Whether or not you believe there is any public benefit to elite universities depends on whether you consider their anointing and training of a ruling class (see footnote 16) as a beneficial civic function, a threat to democratic rule, or something in between. Moreover, many elite students believe themselves to be preparing for public service and leadership, but soon parlay their educational status into lucrative private ventures (Lemann 1999, chap. 16).

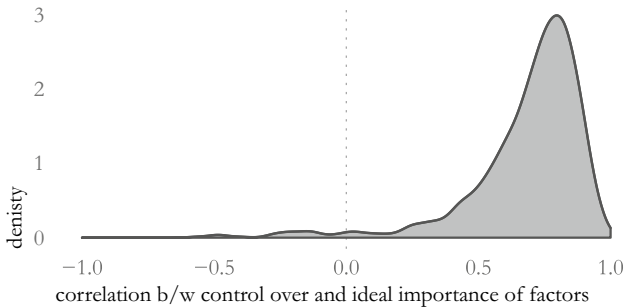


Fig. 6 Density plot of the correlation between (1) perceived control over economic factors and (2) the ideal importance of those factors to economic standing, by respondent

factor and (2) the ideal importance of that factor to economic standing. In this section, I calculate *for each respondent* the correlation between (1) perceived control over all 15 economic factors and (2) the ideal importance of all 15 factors to economic standing. This new correlation serves as an indicator of how important *overall* the control-importance relationship is to individual respondents.

The overall control-importance correlation will be positive and close to 1 if a respondent's assessment of our control over economic factors travels closely with her appraisal of those factors' ideal economic importance (i.e., she believes that people exercise great control over her ideal desert criteria and little control over criteria she considers distasteful). The density plot of this correlation for all survey respondents is shown in Fig. 6. With its visible peak, mean correlation coefficient of 0.69, median of 0.74, and interquartile range spanning [0.62, 0.82], individual respondents by and large associate personal responsibility with economic desert. Still, there are sizeable discrepancies. The distribution curve takes up the entire positive range of the horizontal axis (some rebels bleeding into the negative portion), with a non-trivial number of respondents falling in a range of correlation coefficients that statisticians could reasonably describe as “moderate” to “weak”. The standard deviation is fairly large at 0.22, and a full 90% of the observations fall between [0.44, 0.98]. While some respondents steadfastly associate agency with desert, a great many do so tepidly. In the next section of this paper I make an initial attempt to explain this variation.

4 For whom is agency critical to economic desert?

President Obama and Governor Romney disagree over the factual accuracy of the “you didn't build that” statement, but they agree on its moral significance. By and large, respondents do too. While they debate the level of control we exercise over certain factors like intelligence, creativity, health, and prestige of schooling, individual respondents generally want their economic standing to be adjudicated by factors they perceive to be within their control. The strength of this relationship, however, is

neither as strong nor consistent as the dominant philosophical camp might like or as most economists, psychologists, and related researchers assume.

Responsibility-desert correlations are meager across factors. More telling, individual respondents associate personal responsibility and economic desert with variable vigor. Is the degree to which different Americans correlate agency with desert predictable? In this section, I measure the importance different populations and personalities attach to personal responsibility through simple linear regression. I find evidence that economic outgroup membership, motivated reasoning, and age moderately influence a respondent's responsibility-desert association. Meanwhile an individual's neoliberal leanings—and therefore her preoccupation with economic growth—strongly influence the emphasis she places on personal responsibility as precondition to economic deservingness.

4.1 Data

Data for this section comes from the same survey used in the previous analysis, with sampling procedure and results outlined in Sect. 3.1 and Table 2.

The dependent variable is a respondent's correlation between (1) perceived control over each of the 15 economic factors and (2) the ideal importance of each of the 15 factors to economic standing. This is the same correlation whose distribution I graph in Fig. 6. Summary statistics are given in Sect. 3.4. Values approaching 1 indicate that control over an economic determinant tracks closely with the ideal importance of that determinant for a respondent.

Independent variables include the respondent's ideological and religious outlook, the respondent's current economic standing, whether or not the respondent belongs to a demographic group that has traditionally been subject to economic discrimination, educational, generational and regional effects, and the importance the respondent places on economic growth. Information on the range of values for these variables is summarized in Table 3 in Appendix 2.

4.2 Analysis

I treat each independent variable in turn, giving the theoretical motivation for including it in my models and the empirical results of those models. Table 1 shows two parallel versions of Ordinary Least Squares models that produced robust predictions. To assure readers that my findings are not unduly tainted by multicollinearity, I show piecemeal regression results for various combinations of independent variables in Appendix 3, Table 4.

Four items to note when interpreting the regression results. First, the dependent variable remains on a $[-1,1]$ scale as is standard for correlation coefficients, while all explanatory variables save *age* have been standardized to a $[0,1]$ scale for easier interpretation of regression coefficients. Regression coefficients for normalized variables immediately show readers the entire possible range of an independent

Table 1 Regression on the correlation between perceived control over economic factors and their ideal importance to economic standing

Variable	OLS coefficients					
	Model 1a	Model 2a	Model 3a	Model 1b	Model 2b	Model 3b
Ideology	- 0.166*	- 0.043		- 0.137		
	(0.093)	(0.062)		(0.091)		
Political party	0.007			0.047		
	(0.071)			(0.0073)		
Religiosity	- 0.079*	- 0.039		- 0.076*	- 0.033	
	(0.045)	(0.043)		(0.046)	(0.035)	
Theology	0.020			0.032		
	(0.060)			(0.060)		
Nonwhite	- 0.098***	- 0.066**	- 0.070**	- 0.092***	- 0.061**	- 0.065**
	(0.032)	(0.029)	(0.031)	(0.030)	(0.026)	(0.028)
Female	0.005			0.015		
	(0.031)			(0.023)		
Gay	0.047			0.028		
	(0.031)			(0.031)		
Income	0.108*	0.123**	0.119**	0.121**	0.133***	0.125***
	(0.055)	(0.051)	(0.049)	(0.052)	(0.049)	(0.049)
Ivy league	0.159***	0.125***	0.114***	0.162***	0.121***	0.120***
	(0.051)	(0.041)	(0.042)	(0.053)	(0.042)	(0.043)
Education	0.028			0.014		
	(0.058)			(0.050)		
Age	- 0.003**	- 0.003***	- 0.003**	- 0.003**	- 0.003***	- 0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Urban	0.018			0.024		
	(0.039)			(0.037)		
Southern	0.073**	0.039		0.073***	0.038	
	(0.029)	(0.027)		(0.026)	(0.027)	
Neoliberal	- 0.269***	- 0.201***	- 0.182***			
	(0.091)	(0.077)	(0.058)			
Profits				0.011		
				(0.052)		
Gov. stay out				0.039		
				(0.057)		
Self help				- 0.097*	- 0.085*	- 0.085*
				(0.052)	(0.045)	(0.045)
Disp. incentives				- 0.193***	- 0.121**	- 0.122***
				(0.056)	(0.048)	(0.047)
Constant	0.643***	0.635***	0.623***	0.611***	0.601***	0.610***
	(0.073)	(0.058)	(0.058)	(0.076)	(0.056)	(0.055)
N	671	953	953	671	953	953
Adj-R ²	0.1978	0.1288	0.1193	0.2320	0.1467	0.1382

Table 1 (continued)

 Robust SEs in parentheses. Dependant variable on [-1,1] scale

 All others save *age* standardized [0,1]

*Significant at 10%; ** 5%; *** 1%

variable's effect on the dependent variable.¹⁹ Second, all analyses using my survey data use raking weights so as to be more generalizable to the sampled population, and more statistically conservative (i.e., standard errors are robust). Third, although I ran several models where appropriate variables were allowed to be nonlinear, I only show results from when I model a linear relationship between the dependent and independent variables, for reasons I explain below. Fourth, to fit within this journal's allowable word limit, I focus my discussion on variables that achieve traditional levels of statistical significance. I have theoretical grounds for all variables in my regressions. I discuss those grounds, and my subsequent hypotheses, in Appendix 4.

4.2.1 Effects of philosophical outlook (*ideology, political party, religiosity, and theology variables*)

Ideology, political affiliation, religious observance, and theological persuasion have statistically indiscernible influences on the degree to which respondents correlate agency and economic desert. Ideology and party remain statistically insignificant when one or the other variable is removed, and when other potentially related variables such as *neoliberal* are removed. Although my hypotheses were not borne out by the data, see Appendix 4.1 for an explanation as to why these variables might theoretically influence the dependent variables.

4.2.2 Effects of economic outgroup membership (*nonwhite, female, and gay variables*)

Having been so long deprived the ability to dictate their own economic fortunes, members of economic outgroups may define desert vis-à-vis agency differently than economic ingroup members, for reasons I detail in Appendix 4.2. Of the three economic outgroups considered, only racial minorities display a statistically differentiable correlation compared to their ingroup counterparts. African Americans and Latinos are less disposed to associate agency and economic desert, compared to whites.

All else equal, were a white respondent to suddenly become a racial minority, her correlation coefficient would drop between 0.07 and 0.10 units. This is a fairly small effect given how radically different life for whites and non-whites is in America, but the direction of the effect is intriguing. Rather than increasing their desire for agency, having been deprived of agency in economic matters may have encouraged

¹⁹ To see the effect on the dependent variable of a single unit change in a a normalized, ordinal, independent variable, simply divide that independent variable's coefficient by the number of possible responses (e.g., 7 in the case of *ideology*). See Table 3 in Appendix 2 for relevant information about each variable.

non-whites to value community membership, kinship, and similar solidarity-oriented qualities for which we are not responsible as worthy reasons for economic assistance and advancement. Because the prevailing economic system refuses to reward non-whites for the otherwise laudable qualities they nominally control, non-whites sensibly care less about those qualities and emphasize their shared economic disadvantage as a desert basis. This explanation accords with previous empirical findings (e.g., Fong and Luttmer 2009; Luttmer 2001), and, if correct, is an interesting example of when a lack of agency (in this case, being the victim of a racist economic system) is an understandable basis of desert.

4.2.3 Effects of motivated reasoning (*income and ivy league variables*)

An individual's equating economic desert with personal responsibility increases with a respondent's financial comfort and educational pedigree. All else equal, going from earning less than \$5,000/year to more than \$175,000/year increases a respondent's correlation coefficient about 0.12 units; not paltry, per se, but a rather subdued change for such a tremendous leap in income. Nevertheless, income has a statistically significant, positive, linear influence on a respondent's association between agency and economic desert.

Same for educational pedigree. Respondents who attended—for however long, at whatever level—an Ivy League school more closely correlate personal responsibility with economic desert than their non-Ivy counterparts by about 0.12 units, *caeteris paribus*. Although of the same magnitude as the regression coefficient for income, the effect *seems* substantively greater because the difference between having versus not having spent time enrolled in one of the eight Ivy schools seems minuscule compared to the \$170,000 *per year* that yields the same change in dependent variable. In this light, association with an Ivy League school appears to have a striking influence on a person's moral economic outlook.²⁰

The pronounced agency-desert association among high-earning respondents and those with a prestigious educational pedigree may be an internal face-saving measure—an instance of motivated reasoning, whereby the brain converges on judgments that minimize negative, and maximize positive, affect states (e.g. Westen et al. 2006). The well-to-do want to claim credit—or at least believe themselves responsible—for their high status, and thus see personal responsibility as an important component of economic desert. Although unsupported by my regressions, I detail in Appendix 4.3 the reasons to investigate (and the additional efforts I made to determine) if income and related measures have a non-linear relationship with desire for economic agency, such that wealthy respondents seek to justify their high incomes and poor respondents seek to justify their low incomes.

²⁰ Future researchers may want to further investigate the effects of school prestige by expanding the Ivy League variable to include closely related schools (e.g., Stanford, University of Chicago, etc.).

4.2.4 Effects of demographics (*education, age, urban, and southern variables*)

Age is the only demographic control to exhibit a consistent, statistically significant influence on a respondent's correlation of agency and economic desert. All else constant, every 10 years a respondent ages her correlation coefficient drops about 0.03 units. It may be that older Americans subscribe to outdated economic norms emphasizing gender and race, and thus de-emphasizing agency, in economic desert. Alternatively, rather than a generational effect related to old-timey prejudices, this gradual mellowing on the importance of agency may be a coming to terms with stochasticity—a widespread acceptance that much in life is random and beyond our control (see Bower-Bir 2014, chap. 7).

Although they do not achieve statistical significance, Appendix 4.4 explains the theoretical relationship between the dependent variable with a respondent's level of education and geographic location. Note also that Table 4 suggests sexual orientation may warrant future consideration as a statistical control.

4.2.5 Effects of economic zeal (*neoliberal variable, or profits, gov. stay out, self help, and disparity incentives variables*)

Factors over which we seemingly exercise control may be many respondents' ideal determinants of economic status, not because of our control over them, but because those factors happen to be especially valuable to the productive enterprise. To account for this possibility, I include in the regressions an index variable that measures how closely respondents subscribe to the neoliberal economic agenda. The more sympathetic a person is to the neoliberal agenda, the less concerned she will be with matters of agency, per se, when rating her preferred economic factors. Her preoccupation with growth may alter her definition of economic desert, or it may simply lessen her sensitivity to the availability of agency.

Individuals who score highly on the neoliberal measure (1) think business profits—however unevenly distributed—benefit everyone, (2) want minimal government intervention in economic matters, (3) believe people should look out for their own economic interests foremost, and (4) believe that socioeconomic disparities are essential to motivate individual productivity. Models 1a–3a in Table 1 use the neoliberal index variable while models 1b–3b use the four constituent variables.

Zeal for economic growth is the most substantively and statistically significant predictor of our dependent variable. As expected, the less enamored an individual is of laissez-faire economic liberalism, the more she values agency in determining peoples' financial situations. Phrased in reverse: respondents ardent in their commitment to unfettered economic growth and profit are relatively less concerned with the amount of control individuals exercise over their financial wellbeing. Holding all else constant, moving a respondent from a steadfast anti-neoliberal position to a staunch neoliberal position will produce a decrease of about 0.20 units in their correlation coefficient. That is a sizable change in coefficient, but the shift in ideological outlook motivating it would be an extreme intellectual about-face. Still, even a moderate change in neoliberal outlook produces a marked change in a respondent's correlation of agency and economic desert. The majority of this effect is concentrated

in a respondent's belief that socioeconomic disparities are beneficial for motivating personal productivity (regression coefficient of about 0.12), followed by her belief that people should look out for their personal economic interests foremost (regression coefficient of about 0.09). Whatever moral weight neoliberals attach to personal responsibility, it is at least partially offset by their desire for economic productivity.

5 Conclusions and discussion

Survey respondents, and the broader public they represent, are not unified in their definitions of economic desert, with some folks systematically more, and others systematically less, convinced that economic desert necessitates personal responsibility. Rather than a single definition of desert, communities of people evolve their own over repeated interactions trying to resolve common distributional problems. The emergent quality of desert has been championed by noted economists (esp. Binmore 2011), and it can be explained in the grammar of institutional economics (Binmore 2009; Bower-Bir 2014, 2020a). Rather than stick to pristine definitions that we pretend are universal, social scientists and researchers from neighboring disciplines should revel in this diversity of justices, studying morality as it is understood and lived by actual people.

Such findings demand an "opening up" of justice, what it might mean and how it manifests. This would be a departure from current trends, wherein researchers increasingly narrow their use of the idea and related terms, and ignore many important caveats and exceptions. Appreciating the potential for variation in desert, however, does not mean that broad trends must go unnoticed. When it comes to economic standing, respondents consistently—though not always emphatically—associate responsibility with legitimate bases of economic desert. They see attitude, hard work, ambition, and education as within their compatriots' personal purviews and as acceptable, even laudable, means of economic advance. Race, gender, family wealth, and family social connections, conversely, are outside of personal jurisdiction and should not be parlayed into economic station. At baseline, Americans want their economic fates tied to qualities that we seem to control, as Table 1's statistically significant albeit moderate-in-magnitude constant coefficients suggest.²¹ This desire cuts across sex, sexual orientation, education, place, theology, and political ideology. And as I show elsewhere, it has important policy implications. For example, people who assign a significant role to personal responsibility in their definitions of economic desert are more likely to oppose large-scale redistribution policies because government intervention makes it harder (by their definition) to deserve their economic station (Bower-Bir 2014, 2018).

²¹ But *suggest* is all they do. While the constant term gives you an idea of the average value of the dependent variable when all independent variables are equal to zero—and while zero is a possible and observed value for all predictor variables in these models save *age*—the constant also serves as a receptacle for any bias otherwise unaccounted for in the model, as specified. While potentially revealing, interpret the constant with caution.

A longing for, and commitment to, personal responsibility fits nicely with the American dream, where economic advancement is supposedly open to anyone willing to work for it, invest the necessary time and effort (Feldman 1983). The myth has become gospel, but evangelists would grow bored without heretics. American educators, political leaders, and advertising executives work tirelessly to convince their compatriots that economic success is theirs for the taking (e.g., Hochschild and Scovronick 2004; Lim 2002; Marchand 1986). Their efforts, I show, are met with some skepticism. Respondents debate individual control over intelligence, creativity, health, and educational pedigree, but they overwhelmingly support the influence of the first two factors on economic standing. A sizable portion of respondents, therefore, recognize as moral at least two routes to wealth and poverty that do not accord with the standard narrative of *earning* what is yours. The smart and gifted can get ahead, the stupid and uninspired can fall behind, all without overly troubling many peoples' consciences.

Beyond these specific routes to economic station, patterns among survey respondents indicate dissent from the standard responsibility-desert narrative among two broad groups. First, non-white, low-income, un-pedigreed, and older Americans are less convinced than their counterparts of the general link between agency and economic desert. This uncoupling of responsibility from economic wellbeing among economically marginalized populations is suggestive of a needs-based, communitarian, or potentially egalitarian sentiment, whereby socioeconomic status and economic security are to some degree guaranteed to people whose membership in the relevant group may be accidental. For example, citizens born into Nordic social democracies enjoy access to extensive welfare programs through no fault of their own. This is akin to rights-based arguments, whereby members of a polity deem their compatriots, and perhaps humans generally, deserving of a base level of economic security by virtue of their living in a sufficiently prosperous nation or being a member of the human species (see Bower-Bir 2020a). While statistically robust, this trend is substantively moderate.

The most committed heretical group are neoliberals, who afford personal responsibility a significantly diminished role in their definitions of economic desert compared to their less growth-focused compatriots. An untangling of responsibility from social prestige and material accumulation: that is what happens when Rugged Individualism—a quest for productivity wrought of our personal efforts and sacrifices—runs into another of the powerful American creeds, Unadulterated Profit (e.g., Lipset 1996). If agency with an eye toward productivity is the American dream, there are plenty of people looking for productivity plain and simple. Approximately 60% of survey respondents fall on the positive side of the neoliberal index variable, although the majority land in the temperate region of that distribution, as you can see in Fig. 7.

That some respondents are systematically less dogmatic about the connection between economic desert and personal responsibility raises new questions for researchers, with important social ramifications. For example: how do variations in economic desert influence efforts to combat growing economic—and with it, political—inequality. A commonsense tactic for anti-inequality policy entrepreneurs might show the public that much wealth is undeserved (Starmans et al. 2017;

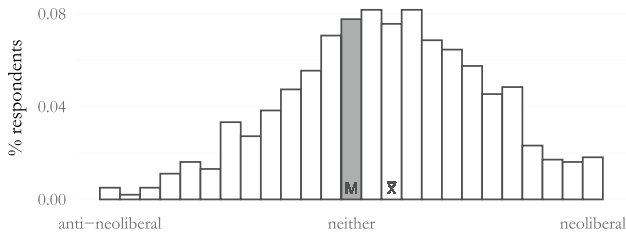


Fig. 7 Neoliberal distribution in survey sample. The mean \bar{x} falls just to the right of the neutral midrange value M , meaning that the majority of survey respondents have neoliberal-leanings, with few die-hard neoliberals, but even fewer respondents dead set against neoliberal ideas

Bower-Bir 2018). As a general rule, that may mean showing that many peoples' economic statuses are largely dictated by factors outside their control. There is ample evidence that such is the case (e.g., Bowles et al. 2005), but citizens with neoliberal leanings will be unmoved by the argument relative to citizens who place less emphasis on economic growth.

Neoliberal downgrading of personal responsibility, and the broader respondent split on control-over versus ideal-importance-of intelligence and creativity, bring to the fore still deeper questions: to what degree does economic desert, especially as people define in the everyday, imbue *market value* with *moral value*? Covering our patchwork of idiosyncratic communities is the “market society”, and the market society has evolved its own standards of good and evil, its own judgments of worth (Polanyi 1957; Lindblom 2002), and these will interact with those of various professions, religions, regions, etc. There are plenty of characteristics over which we seem to exercise control, but that we nonetheless want kept far from considerations of socioeconomic position. Similarly, it seems likely—though has not yet been shown—that attitude, hard work, ambition, creativity, and intelligence would not rate as highly as they do on “ideal importance to economic standing” if they were irrelevant, or less relevant, to economic endeavors. How much weight did respondents place in our jurisdiction over those characteristics relative to their market usefulness in calculating ideal importance? Determining the exact proportions of these two ingredients would make for fascinating future research. I control for some of this bleed-over in my regressions by including variables like neoliberal leaning, and in Sect. 3.2 I make suggestions for future researchers to control for the perceived pertinence of a given factor to the productive enterprise. There may, however, be a deeper force at work. These factors may be more than merely salient to economic standing; they may be fully moral qualities in the market society.

The question takes on additional importance when you consider that the world may be filled with positive-thinking, diligent, ambitious people who produce little of market value. Survey respondents were quick to say that these three characteristics—attitude, industriousness, and ambition—should be of the utmost importance in determining a person's socioeconomic status, in the abstract. Would they alter their positions if confronted with a living example of someone who is assiduous yet economically unproductive? Future researchers may investigate: what do we believe

we owe these diligent albeit unproductive poor?²² There is also the dark flip-side to this question: what factors for which we are not personally responsible might we imbue with the moral force of desert if we think them useful toward some end? It was not long ago that prominent academics and their prevailing economic theories implicitly assumed white males were more productive than their black and female counterparts (Galle et al. 1985, 20). Such misconceptions in a market society cement race, sex, and similar characteristics for which we are not responsible²³ as viable, widespread desert bases—a troubling situation we never outgrew, and that appears to be taking stronger hold (Kassel 2017; Potok 2017).

Acknowledgements Special thanks to Elinor Ostrom, who started me on this path, and to Zach Wendling, who encouraged me to keep walking it.

²² Based on previous research, I would conjecture that for most respondents, the “diligent poor” do not deserve their poverty, but neither are their labours enough to win them moral claim to a glamorous economic station, even if they work harder than those (supposedly more meritorious) few who inhabit that enviable realm. See Bower-Bir (2014, chap. 5) for more on the “undeserving poor”.

²³ Despite medical procedures that allow for sex reassignment and racial/ethnic modification, matters of sex and race are still largely about how *others* perceive us and are thus partially outside of our purview. Recall, for instance, the debate over whether citizens and civil rights leaders considered President Obama black, which he considered himself to be (Desmond-Harris 2014). Even if such characteristics were firmly in our control, acting on that control in pursuit of our self-identification often results in new social hostilities, such as those facing transgender and transracial advocates (Tuvell 2017).

Appendix 1: Demographic breakdown of survey sample

See Table 2

Table 2 Demographic breakdown of survey sample

	Sample N	Sample %	US pop %	Sample% – US pop%
<i>Gender</i>				
Female	586	0.59	0.51	0.08
Male	406	0.41	0.49	– 0.08
	992	1.00	1.00	0.00
<i>Race</i>				
White	701	0.71	0.64	0.07
Black	93	0.09	0.12	– 0.03
Latino	52	0.05	0.16	– 0.11
Asian	111	0.11	0.05	0.06
Other	35	0.04	0.03	0.01
	992	1.00	1.00	0.00
<i>Education</i>				
High school or less	118	0.12	0.43	– 0.31
Associate's or some college	330	0.33	0.29	0.04
Bachelor's degree	351	0.35	0.17	0.18
Graduate degree	193	0.19	0.11	0.08
	992	1.00	1.00	0.00
<i>Household income</i>				
<\$25k	192	0.19	0.25	– 0.06
\$25k–\$49k	247	0.25	0.25	0.00
\$50k–\$74k	210	0.21	0.18	0.03
\$75k–\$99k	141	0.14	0.12	0.02
\$100k–\$149k	137	0.14	0.12	0.02
\$150k+	65	0.07	0.08	– 0.01
	992	1.00	1.00	0.00
<i>Political party</i>				
Republican	68	0.07	0.24	– 0.17
Lean Republican	79	0.08	0.16	– 0.08
Independent	264	0.27	0.12	0.15
Lean Democrat	284	0.29	0.16	0.13
Democrat	297	0.30	0.32	– 0.02
	992	1.00	1.00	0.00

U.S. partisanship estimates from the Pew Research Center for the People and the Press Pew Research Center (2012). All others from Census Bureau DeNavas-Walt et al. (2013) projections

Appendix 2: Summary of independent variables

Table 3 summarizes the types and values of independent variables included in my regressions. More complete information pertaining to these variables can be found in the codebook that accompanies the publicly available dataset. Moreover, interested readers may freely download all Stata and R code used in data cleaning and analysis (Bower-Bir 2020b).

Table 3 Summary of independent regression variables

Variables	Type	No. values	Range
Ideology	Ordinal	7	Very liberal, ... , moderate, ..., very conservative
Political party	Ordinal	7	Strong Dem., ..., Independent, ..., strong Repub.
Religiosity	Ordinal	5	Not at all religious, ..., very religious
Theology	Ordinal	3	Liberal, moderate, fundamentalist
Nonwhite	Binary	2	White, non-white
Female	Binary	2	Male, female
Gay	Binary	2	Strictly heterosexual, not strictly heterosexual
Income	Ordinal	19	< 5000, ..., \$35,000–\$39,999, ..., ≥ \$175,000
Class change [†]	Ordinal	7	Regressed 3 classes, ..., advanced 3 classes
Ivy league	Binary	2	Never attended Ivy school, attended Ivy school
Education	Ordinal	7	8th grade or less, ..., graduate/prof. degree
Age	Integer	72	[18, 90]
Urban	Ordinal	5	Rural community, ..., city suburb, ..., large city
Southern	Binary	2	Non-Southern state, Southern state
Neoliberal [‡]	Ordinal	25	Strongly anti-neoliberal, ..., strongly neoliberal
Profits [¶]	Ordinal	7	Strongly disagree, ..., strongly agree
Gov. stay out [§]	Ordinal	7	Strongly disagree, ..., strongly agree
Self help	Ordinal	7	Strongly disagree, ..., strongly agree
Disp. incentives [#]	Ordinal	7	Strongly disagree, ..., strongly agree

[†] Alternative measure of motivated reasoning indicating socioeconomic class regression/advance since childhood; results not shown in Table 1 but explained in Appendix D.3

[‡] An index variable created by summing *business profits*, *gov. stay out*, *self help*, and *diff. incentives*

[¶] “The economy can only run if businesspeople make good profits. That benefits everyone in the end”

[§] “Government should not intervene in economic matters”

^{||} “You have to take care of yourself first, and help others only if you have any energy left over”

[#] “Only if differences in income and social standing are large enough is there an incentive for individual effort”

Appendix 3: Additional regression results

See Table 4

Table 4 Regression on the correlation between perceived control over economic factors and their ideal importance to economic standing

Variables	OLS coefficients									
	Model A	Model B	Model C	Model D	Model E	Model F	Model G	Model H	Model I	
Ideology	0.006 (0.058)									
Political party		- 0.049 (0.057)								- 0.019 (0.055)
Religiosity	- 0.069 (0.053)									
Theology		0.106 (0.070)								0.014 (0.055)
Nonwhite			- 0.093** (0.038)					- 0.084*** (0.030)		- 0.104*** (0.033)
Female			0.005 (0.030)					0.013 (0.027)		0.004 (0.033)
Gay			0.081*** (0.027)					0.058*** (0.022)		0.061** (0.030)
Income				0.125** (0.049)						0.083 (0.058)
Ivy league				0.097*** (0.032)						
Education					0.080 (0.058)			0.056 (0.053)		0.048 (0.055)
Age					- 0.003** (0.001)			- 0.003** (0.001)		- 0.002* (0.001)
Urban					- 0.039 (0.033)			0.007 (0.035)		0.030 (0.042)

Table 4 (continued)

Variables	OLS coefficients									
	Model A	Model B	Model C	Model D	Model E	Model F	Model G	Model H	Model I	
Southern					0.040 (0.027)			0.035 (0.028)	0.069** (0.029)	
Neoliberal						-0.185*** (0.064)				
Profits							0.053 (0.042)			
Gov. stay out							-0.040 (0.036)			
Self help							-0.089* (0.047)			
Disp. incentives							-0.132*** (0.051)			
Constant	0.698*** (0.046)	0.628*** (0.066)	0.695*** (0.020)	0.599*** (0.036)	0.748*** (0.035)	0.575*** (0.045)	0.559*** (0.047)	0.738*** (0.040)	0.671*** (0.061)	
N	962	709	916	953	962	962	962	916	679	
Adj-R ²	0.0145	0.0183	0.0540	0.0211	0.0613	0.0297	0.0501	0.0964	0.1337	

Robust SEs in parentheses. Dependant variable on [-1,1] scale. All others save *age* standardized [0, 1]

*Significant at 10%; **5%; ***1%

Appendix 4: Theoretical grounds for independent variables

In this appendix, I provide the theoretical motivations for including the independent variables I use in my Sect. 4 regression analysis. I also outline my hypotheses surrounding those variables. I pay special attention here to those variables for which I find no statistically significant effect. I give expanded treatment in the main text to variables for which I uncover evidence at traditional levels of statistical significance.

Ideology, political party, religiosity, and theology

I predict that certain philosophical considerations—especially ideological and religious viewpoints—will explain an individual’s association of personal responsibility with economic desert. It is unclear, however, whether Democrats and liberals or their Republican and conservative counterparts will be more likely to restrict their ideal factors of desert to those qualities over which they believe people exert control. On the one hand, personal responsibility is central to Republican and conservative American rhetoric (Schram 2000), such that they may more firmly equate agency with economic desert. Indeed, the Horatio Alger, pull-yourself-up-by-your-bootstraps mentality seems particularly ingrained among denizens of America’s right. But so are long-standing, still prevalent, social and economic prejudices based on race, ethnicity, gender, and sexuality. As such, conservative susceptibility to status-quo biases might lead right-leaning respondents to be more relaxed than liberals on responsibility’s relationship to desert (Jost et al. 2003). Members of America’s left, while certainly not immune to economic and social prejudices, are the traditional promoters of policy safeguards for people whom fate has placed at the unpleasant end of economic bigotry. Democrats and liberals, then, might be specifically looking for desert criteria that allow for individual agency, whereas Republicans and conservatives may be happy to support status quo and even outdated desert criteria.

As for religion, I expect that regular churchgoers and those who identify with a fundamentalist theology will be less attached to the notion of economic agency. Compared to their fair-weather counterparts and those who subscribe to a liberal doctrine, the highly devout and religious fundamentalists are content to judge others based on characteristics beyond personal control, such as gender and sexual preference (Bendroth 1999; Emerson and Hartman 2006; Fulton et al. 1999). These people care less about their personal actions and desires and more about the interventions and dictates of a Higher Power (Pargament et al. 1988).

Findings. As discussed in Sect. 4.2, I found no statistical support for these hypotheses in my regression analysis.

Nonwhite, female, and gay

I expect that members of social and economic outgroups will be more likely to include agency as an integral part of economic desert. I specifically control for whether a respondent is female, non-white, and homosexual. Individual female,

non-white, and homosexual respondents may not consider themselves the subject of personal discrimination, but “indeterminate classes of persons” can also be the victims or perpetrators of injustice (Blackstone 1975, 255; Khatchadourian 2006), and each aforementioned demographic has long been the target of economic discrimination. In each of these cases, broad classes of people face economic hurdles because of demographic characteristics over which they either have no control, or where exerting control leads to additional prejudices. Having been so long deprived the ability to dictate their own economic fortunes, I predict their definitions of economic desert will place special emphasis on factors that people can control.

Findings. As discussed in Sect. 4.2, none of my hypotheses pass statistical muster, and the direction of the regression coefficient for nonwhite respondents actually runs in the direction opposite my prediction.

Income and change in socioeconomic class

I expect that the correlation between agency and economic desert will be strongest among respondents who are currently facing either very favorable or very unfavorable economic conditions. Such an association, if uncovered, is likely an internal face-saving measure, an instance of motivated reasoning, whereby the brain converges on judgments that minimize negative and maximize positive affect states (e.g. Westen et al. 2006). The well-to-do want to claim credit—or at least believe themselves responsible—for their high status, and thus see agency as an important factor of economic desert. Believing themselves personally responsible for their success, their ideal economic factors will be those over which people exercise control. The economically worst-off, wanting consciously or unconsciously to eschew responsibility for their destitution, will figure themselves to be the playthings of a cruel and arbitrary system. Believing that they have been denied economic agency and suffered for it, their ideal measure of desert will also feature a prominent role for personal responsibility. Respondents of middling incomes have less to justify. Whether they earned their middle status or lucked into it, their economic position is unremarkable, albeit comfortable.

The relationship I posit between a respondent’s income and correlation coefficient is nonlinear. Specifically, I expect a ‘U’ shape to characterize the relationship, with demand for agency highest at extreme incomes (although not necessarily reaching equally high at the ends). I am able to test for this nonlinearity two ways. In one class of models I treat income as a polynomial. In another class of models I fold the variable for income about the median value, so that high and low incomes are of the same sign. It is possible, however, that rather than exhibiting a quadratic relationship, income has a simple linear relationship such that moving up economic echelons makes you think differently about agency’s ideal relationship with economic desert. A positive linear relationship between desire for agency and income is still suggestive of motivated reasoning, whereby respondents feel the need to justify only what they have, as opposed to the nonlinear scenario where they must also justify what they do not have. Rather than comparing their income to a median value, respondents may be thinking about their income relative to a floor. If so, they would

want to attribute high income to themselves, which in turn inclines them to assign a healthy role to agency in their definition of economic desert.

If at work, I hypothesize that this psychological mechanism will also express itself in respondents whose current economic standing is notably better or worse than it was in a prior time. It is not just about what you have, but where you came from to get it. Someone who has ascended the economic ladder will frame her journey as one of will, determination, and personal triumph. Someone who has plummeted in economic standing, the professed victim of misfortune, will be all the more desirous of an economic system that differentiates desert from stochastic factors. Accordingly, I included in my models a variable that measures a respondent's perceived change in socioeconomic status from childhood to the present, expecting respondents who climbed or fell several socioeconomic rungs over their life to be particularly attuned to agency's role in economic desert.

Findings. As discussed in Sect. 4.2, only my linear treatment of income produced statistically significant results indicative of motivated reasoning. I ran separate models wherein I treated income as a polynomial and another set of models wherein the variable was folded about the median value to test for the nonlinear relationship I posited above. Incremental Wald and F tests failed to provide support for my prediction of nonlinearity. Regression coefficients and p-values for the other independent variables were largely unchanged regardless of how I modeled and measured income. As such, I have opted to show only the more easily interpretable linear models in Table 1. Moreover, my variable measuring a respondent's perceived change in socioeconomic status offered little in the way of explanatory power, never achieved statistical significance, and standard tests indicated that its removal from my various models did not result in omitted variable bias. As with my nonlinear measures of income, I have chosen not to display the regression results for this variable, though I do introduce the *class-change* variable in Table 3.

Education, age, urban, and southern

I account for the potential effect of education, age, and place on an individual's association of economic desert with agency. As an individual advances in her schooling she is exposed to diverse ideas and people and is socialized to be inquisitive and tolerant. Such characteristics are essential to a fruitful course of study in organizations of higher learning. The higher the degree sought, the more internal these qualities become, and the more likely the respondent is to judge others on merits they can control rather than those they cannot. Conversely, older Americans, and Americans from rural communities and southern states may subscribe to outdated economic norms that emphasize the role of gender and race (and thus de-emphasized the role of agency) in economic desert.

Findings. As discussed in Sect. 4.2, only age has a statistically significant effect on the dependent variable. Age's regression coefficient has the predicted sign, though its magnitude is rather small.

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