

Free Will Skepticism and Its Implications: An Argument for Optimism

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[For *Free Will Skepticism in Law and Society*, ed. Elizabeth Shaw & Derk Pereboom]

Contemporary theories of free will tend to fall into one of two general categories, namely, those that insist on and those that are skeptical about the reality of human freedom and moral responsibility. The former category includes *libertarian* and *compatibilist* accounts of free will, two general views that defend the reality of free will but disagree on its nature. The latter category includes a family of skeptical views that all take seriously the possibility that human beings do not have free will, and are therefore not morally responsible for their actions in a way that would make them *truly deserving* of blame and praise for them.¹ The main dividing line between the two pro-free will positions, libertarianism and compatibilism, is best understood in terms of the traditional problem of free will and determinism. *Determinism*, as it is commonly understood, is roughly the thesis that every event or action, including human action, is the inevitable result of preceding events and actions and the laws of nature. The problem of free will and determinism therefore comes in trying to reconcile our intuitive sense of free will with the idea that our choices and actions may be causally determined by impersonal forces over which we have no ultimate control.

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1. Most contemporary philosophers argue that *free will* and *basic desert moral responsibility* stand or fall together. Exceptions include John Martin Fisher (1994) and Bruce Waller (2011, 2015; cf. Caruso 2016b), but such views remain controversial. In fact, most philosophers agree that in the historical debate the variety of free will that is of central philosophical and practical importance is the sort required for moral responsibility in a particular but pervasive sense. This sense of moral responsibility is set apart by the notion of *basic desert*—which is purely backward-looking and non-consequentialist (see Pereboom 2001, 2014; G. Strawson 1994; Caruso and Morris, forthcoming).

Libertarians and compatibilists react to this problem in different ways. Libertarians acknowledge that if determinism is true, and all of our actions are causally necessitated by antecedent circumstances, we lack free will and moral responsibility. Yet they further maintain that at least some of our choices and actions must be free in the sense that they are not causally determined. Libertarians therefore reject determinism and defend a counter-causal conception of free will in order to save what they believe are necessary conditions for free will—i.e., the *ability to do otherwise* in exactly the same set of conditions and the idea that we remain, in some important sense, the *ultimate source/originator* of action. Compatibilists, on the other hand, set out to defend a less ambitious form of free will, one which can be reconciled with the acceptance of determinism. They hold that what is of utmost importance is not the falsity of determinism, nor that our actions are uncaused, but that our actions are voluntary, free from constraint and compulsion, and caused in the appropriate way. Different compatibilist accounts spell out the exact requirements for compatibilist freedom differently but popular theories tend to focus on such things as reasons-responsiveness, guidance control, hierarchical integration, and approval of one's motivational states.²

In contrast to these pro-free will positions are those views that either doubt or outright deny the existence of free will and/or moral responsibility. Such views are often referred to as skeptical views, or simply *free will skepticism*, and are the focus of this article. In the past, the standard argument for skepticism was *hard determinism*: the view that determinism is true, and incompatible with free will and moral responsibility—either because it precludes the *ability to do otherwise* (leeway incompatibilism) or because it is inconsistent with one's being the “ultimate source” of action (source incompatibilism)—hence, no free will. For hard determinists,

2. Another position similar to compatibilism but not mentioned here is *semi-compatibilism*. Semi-compatibilists maintain that moral responsibility is compatible with determinism but remain agnostic about whether free will is (see, for example, Fischer 1994; Fisher and Ravizza 1998).

libertarian free will is an impossibility because human actions are part of a fully deterministic world and compatibilism is operating in bad faith.

Hard determinism had its classic statement in the time when Newtonian physics reigned (see, e.g., d'Holbach 1770), but it has very few defenders today—largely because the standard interpretation of quantum mechanics has been taken by many to undermine, or at least throw into doubt, the thesis of universal determinism. This is not to say that determinism has been refuted or falsified by modern physics, because it has not. Determinism still has its modern defenders, most notably Ted Honderich (1988, 2002), and the final interpretation of physics is not yet in. It is also important to keep in mind that even if we allow some indeterminacy to exist at the microlevel of our existence—the level studied by quantum mechanics—there would still likely remain *determinism-where-it-matters* (Honderich 2002, 5). As Honderich argues: “At the ordinary level of choices and actions, and even ordinary electrochemical activity in our brains, causal laws govern what happens. It’s all cause and effect in what you might call real life” (2002, 5). Nonetheless, most contemporary skeptics tend to defend positions that are best seen as successors to traditional hard determinism.

In recent years, several contemporary philosophers have offered arguments for free will skepticism, and/or skepticism about moral responsibility, that are agnostic about determinism—e.g., Derk Pereboom (2001, 2014), Galen Strawson (1986/2010), Saul Smilansky (2000), Neil Levy (2011), Richard Double (1991), Bruce Waller (2011), and Gregg Caruso (2012).³ Most maintain that while determinism is incompatible with free will and moral responsibility, so too is *indeterminism*, especially the variety posited by quantum mechanics. Others argue that

3. Bruce Waller maintains a skepticism of moral responsibility but not free will (see 2011, 2015; cf. Caruso 2016b). Saul Smilansky, on the other hand, maintains a skepticism about our purportedly commonplace belief in libertarian free will, and endorses the difficult insights of a hard determinist perspective, but he also maintains that compatibilism retains some truth (see 2000, 2013). Other recent books that advance skeptical positions include Harris (2012), Oerton (2012), Evatt (2010), and Pearce (2010). See also Caruso (2013).

regardless of the causal structure of the universe, we lack free will and moral responsibility because free will is incompatible with the pervasiveness of *luck* (Levy 2011). Others (still) argue that free will and ultimate moral responsibility are incoherent concepts, since to be free in the sense required for ultimate moral responsibility we would have to be *causa sui* (or “cause of oneself”) and this is impossible (Strawson 1994, 2011). Here, for example, is Nietzsche on the *causa sui*:

The *causa sui* is the best self-contradiction that has been conceived so far; it is a sort of rape and perversion of logic. But the extravagant pride of man has managed to entangle itself profoundly and frightfully with just this nonsense. The desire for “freedom of the will” in the superlative metaphysical sense, which still holds sway, unfortunately, in the minds of the half-educated; the desire to bear the entire and ultimate responsibility for one’s actions oneself, and to absolve God, the world, ancestors, chance, and society involves nothing less than to be precisely this *causa sui* and, with more than Baron Munchhausen’s audacity, to pull oneself up into existence by the hair, out of the swamps of nothingness. (1992, 218-19)⁴

What all these skeptical arguments have in common, and what they share with classical hard determinism, is the belief that what we do, and the way we are, is ultimately the result of factors beyond our control and because of this we are never morally responsible for our actions in the basic desert sense—the sense that would make us *truly deserving* of blame or praise. This is not to say that there are not other conceptions of responsibility that can be reconciled with determinism, chance, or luck (see, e.g., Pereboom 2014). Nor is it to deny that there may be good pragmatic reasons to maintain certain systems of punishment and reward (see Caruso 2016a; Pereboom and Caruso, forthcoming). Rather, it is to insist that to hold people *truly* or *ultimately* morally responsible for their actions—i.e., to hold them responsible in a non-consequentialist desert-based sense—would be to hold them responsible for the results of the morally arbitrary, for what is ultimately beyond their control, which is fundamentally unfair and unjust.

4. As quoted by Sommers (2007a, 61) and Strawson (2011).

In addition to these philosophical arguments, there have also been recent developments in the behavioral, cognitive, and neurosciences that have caused many to take free will skepticism seriously. Chief among them have been findings in neuroscience that appear to indicate that unconscious brain activity causally initiates action prior to the conscious awareness of the intention to act (e.g., Benjamin Libet, John-Dylan Haynes), Daniel Wegner's work on the double dissociation of the experience of conscious will, and recent findings in psychology and social psychology on *automaticity*, *situationism*, and the *adaptive unconscious* (e.g., John Bargh, Timothy Wilson, Doris 2002).⁵ Viewed collectively, these developments indicate that much of what we do takes place at an automatic and unaware level and that our commonsense belief that we consciously initiate and control action may be mistaken. They also indicate that the causes that move us are often less transparent to ourselves than we might assume—diverging in many cases from the conscious reasons we provide to explain and/or justify our actions. These findings reveal that the higher mental processes that have traditionally served as quintessential examples of “free will”—such as goal pursuits, evaluation and judgment, reasoning and problem solving, interpersonal behavior, and action initiation and control—can and often do occur in the absence of conscious choice or guidance (Bargh and Ferguson 2000, 926). They also reveal just how wide open our internal psychological processes are to the influence of external stimuli and events in our immediate environment, without knowledge or awareness of such influence. For many these findings represent a serious threat to our everyday folk understanding of ourselves as conscious, rational, responsible agents, since they indicate that the conscious mind exercises less control over our behavior than we have traditionally assumed.

5. See, for example, Libet et al. (1983); Libet (1985, 1999); Soon et al. (2008); Wegner (2002); Wegner and Wheatley (1999); Bargh (1997, 2008); Bargh and Chartrand (1999); Bargh and Ferguson (2000); Wilson (2002); Nisbett and Wilson (1977); Doris (2002). The literature on *Social Intuitionism* (e.g., Haidt 2001) is also sometimes cited in this regard—see Sie (2013) for a brief discussion of its possible relevance.

Even some compatibilists now admit that because of these behavioral, cognitive, and neuroscientific findings “free will is at best an occasional phenomenon” (Baumeister 2008b, 17). This is an important concession because it acknowledges that the *threat of shrinking agency*—as Thomas Nadelhoffer (2011) calls it—remains a serious one independent of any traditional concerns over determinism. That is, *even if* one believes free will and causal determinism can be reconciled, the deflationary view of consciousness which emerges from these empirical findings must still be confronted, including the fact that we often lack transparent awareness of our true motivational states. Such a deflationary view of consciousness is potentially agency undermining (see, e.g., Caruso 2012, 2015; Levy 2014; Nadelhoffer 2011; King and Carruthers 2012; Sie and Wouters 2010; and Davies 2009) and must be dealt with independent of, and in addition to, the traditional compatibilist/incompatibilist debate.

In addition to these specific concerns over conscious volition and the threat of shrinking agency there is also the more general insight, more threatening to (agent-causal) libertarianism than compatibilism, that as the brain sciences progress and we better understand the mechanisms that undergird human behavior, the more it becomes obvious that we lack what Tom Clark (2013) calls “soul control.” There is no longer any reason to believe in a non-physical self which controls action and is liberated from the deterministic laws of nature; a little *uncaused causer* capable of exercising counter-causal free will. While most naturalistically inclined philosophers, including most compatibilists, have long given up on the idea of soul control, eliminating such thinking from our folk psychological attitudes may not be so easy and may come at a cost for some. There is some evidence, for example, that we are “natural born” dualists (Bloom 2004) and that, at least in the United States, a majority of adults continue to believe in a non-physical soul that governs behavior (Nadelhoffer 2014). To whatever extent, then, such dualistic thinking

is present in our folk psychological attitudes about free will and moral responsibility, it is likely to come under pressure and require some revision as the brain sciences advance and this information reaches the general public.⁶

What, then, would be the consequence of accepting free will skepticism? What if we came to disbelieve in free will and moral responsibility? What would this mean for our interpersonal relationships, society, morality, meaning, and the law? What would it do to our standing as human beings? Would it cause nihilism and despair as some maintain? Or perhaps increase anti-social behavior as some recent studies have suggested (Vohs and Schooler 2008; Baumeister, Masicampo, and DeWall 2009)? Or would it rather have a humanizing effect on our practices and policies, freeing us from the negative effects of free will belief? These questions are of profound pragmatic importance and should be of interest independent of the metaphysical debate over free will. As public proclamations of skepticism continue to rise, and as the mass media continues to run headlines announcing “Free will is an illusion” and “Scientists say free will probably doesn’t exist,”⁷ we need to ask what effects this will have on the general public and what the responsibility is of professionals.

In recent years a small industry has actually grown up around precisely these questions. In the skeptical community, for example, a number of different positions have been developed and advanced—including Saul Smilansky’s *illusionism* (2000), Thomas Nadelhoffer’s *disillusionism* (2011), Shaun Nichols’ *anti-revolution* (2007), and the *optimistic skepticism* of Derk Pereboom (2001, 2013a, 2014), Bruce Waller (2011), Tamler Sommers (2005, 2007b), and myself (2016a, forthcoming-a,b,c; Pereboom and Caruso, forthcoming).

6. Predicting what revisions will be made is difficult. It’s possible that relinquishing the folk psychological idea of “soul control” will cause some to accept free will skepticism. But it’s also possible that some might adopt a *free-will-either-way* strategy causing them to accept compatibilism on pragmatic grounds, fearing the alternative.

7. *The Chronicle Review* (March 23, 2012) and *Scientific American* (April 6, 2010) respectively.

Saul Smilansky, for example, maintains that our commonplace beliefs in libertarian free will and desert-entailing ultimate moral responsibility are illusions,⁸ but he also maintains that if people were to accept this truth there would be wide-reaching negative intrapersonal and interpersonal consequences. According to Smilansky, “Most people not only believe in actual possibilities and the ability to transcend circumstances, but have distinct and strong beliefs that libertarian free will is a condition for moral responsibility, which is in turn a condition for just reward and punishment” (2000, 26-27). It would be devastating, he warns, if we were to destroy such beliefs: “the difficulties caused by the absence of ultimate-level grounding are likely to be great, generating acute psychological discomfort for many people and threatening morality—if, that is, we do not have illusion at our disposal” (2000, 166). To avoid any deleterious social and personal consequences, then, and to prevent the unraveling of our moral fabric, Smilansky recommends *free will illusionism*. According to illusionism, people should be allowed their positive illusion of libertarian free will and with it ultimate moral responsibility; we should not take these away from people, and those of us who have already been disenchanted ought to simply keep the truth to ourselves (see also Smilansky 2013).

In direct contrast to Smilansky’s illusionism, Thomas Nadelhoffer defends *free will disillusionism*: “the view that to the extent that folk intuitions and beliefs about the nature of human cognition and moral responsibility are mistaken, philosophers and psychologists ought to do their part to educate the public—especially when their mistaken beliefs arguably fuel a number of unhealthy emotions and attitudes such as revenge, hatred, intolerance, lack of

8. Smilansky’s *Fundamental Dualism*, however, also acknowledges that certain compatibilist insights are true. As Smilansky describes his position: “I agree with hard determinists that the absence of libertarian free will is a grave matter, which ought radically to change our understanding of ourselves, of morality, and of justice. But I also agree with the compatibilists that it makes sense to speak about ideas such as moral responsibility and desert, even without libertarian free will (and without recourse to a reductionist transformation of these notions along consequentialist lines). In a nutshell,...‘forms of life’ based on the compatibilist distinctions about control are possible and morally required, but are also superficial and deeply problematic in ethical and personal terms” (2000, 5; see also 2013).

empathy, etc.” (2011, 184). According to Nadelhoffer, “humanity must get beyond this maladaptive suit of emotions if we are to survive.” And he adds, “To the extent that future developments in the sciences of the mind can bring us one step closer to that goal—by giving us a newfound appreciation for the limits of human cognition and agency—I welcome them with open arms” (2011, 184).

A policy of disillusionism is also present in the optimistic skepticisms of Derk Pereboom and Bruce Waller. Derk Pereboom, for example, has defended the view that morality, meaning, and value remain intact even if we are not morally responsible in the basic desert sense, and furthermore, that adopting this perspective could provide significant benefits for our lives. In *Living Without Free Will* (2001) and again in *Free Will, Agency, and Meaning in Life* (2014), Pereboom argues that life without free will and desert-based moral responsibility would not be as destructive as many people believe. Prospects of finding meaning in life or of sustaining good interpersonal relationships, for example, would not be threatened. And although retributivism and severe punishment, such as the death penalty, would be ruled out, preventive detention and rehabilitation programs would be justified (2001, 2013, 2014). He even argues that relinquishing our belief in free will might well improve our well-being and our relationships to others since it would tend to eradicate an often destructive form of “moral anger.”

Bruce Waller has also made a strong case for the benefits of a world without moral responsibility. In *Against Moral Responsibility* (2011), he cites many instances in which moral responsibility practices are counterproductive from a practical and humanitarian standpoint—notably in how they stifle personal development, encourage punitive excess in criminal justice, and perpetuate social and economic inequalities. Waller suggests that if we abandon moral responsibility “we can look more clearly at the causes and more deeply into the systems that

shape individuals and their behavior” (2011, 287), and this will allow us to adopt more humane and effective interpersonal attitudes and approaches to education, criminal justice, and social policy. He maintains that in the absence of moral responsibility, “it is possible to look more deeply at the influences of social systems and situations” (2011, 286), to minimize the patent unfairness that luck deals out in life, and to “move beyond [the harmful effects of] blame and shame” (2011, 287).

Who then is correct? What would the actual consequences of embracing free will skepticism be? I maintain that *belief in free will and desert-based moral responsibility, rather than being a good thing, actually has a dark side and that we would be better off without it*. My position is one of *optimistic skepticism* and *disillusionism*. I maintain that belief in free will, rather than providing the pragmatic benefits many claim, is too often used to justify treating people in severe and demeaning ways. The problem is the belief that individuals “justly deserve” what they get. The idea of “just deserts”—which is so central to the “moral responsibility system” (Waller 2011, 2013)—is a pernicious one. For one, it often encourages punitive excess in criminal justice, including extreme forms of retributive justice such as the death penalty. It is also used to perpetuate social and economic inequalities. The myth of the “rugged individual” or the “self-made man” (for example) fails to acknowledge the important role *luck* plays in our lives. The simple fact is that what we do, and the way we are, is ultimately the result of factors beyond our control. We are not (as the moral responsibility system would like us to believe) purely or ultimately self-made men and women.

In the following, I will focus on the putative pragmatic benefits of believing in free will and desert-based moral responsibility, rather than (say) arguing directly for free will skepticism. As indicated earlier, regardless of the philosophical debate over free will, a profound *pragmatic*

question remains: Would the consequences of giving up the belief in free will cause nihilism and despair as some maintain, or would it rather have a humanizing effect on our practices and policies, freeing us from the negative effects of free will belief? If it turns out that belief in free will, rather than being a good thing, actually has a dark side, then this would help remove one of the major obstacles in the way of accepting free will skepticism (e.g., concerns over its negative consequences). It would also support *disillusionism* over *illusionism* as the proper course of action for free will skeptics. In section I, I will discuss two common concerns people have with relinquishing the belief in free will and argue that they are unfounded. In section II, I will then make the case for the “dark side” of free will by discussing recent findings in moral and political psychology which reveal interesting, and potentially troubling, correlations between people’s free will beliefs and their other moral, religious, and political beliefs.

I. Addressing Pragmatic Concerns with Free Will Skepticism

Let me begin with the concern that giving up free will belief will *increase anti-social behavior*. This concern has been fueled largely by two widely reported on studies in social psychology (Vohs and Schooler 2008; Baumeister, Masicampo and DeWall 2009). Kathleen Vohs and Jonathan Schooler (2008) found, for example, that participants who were exposed to anti-free will primes were more likely to cheat than participants exposed to pro-free will or neutral primes. In one study, they asked thirty college students to solve math problems on a computer. The volunteers were told that owing to a computer glitch, the answers would pop up on the screen after the problem if they did not hit the space bar. They were asked to do so but told that no one would know either way. In addition, some of the participants in the study were first asked to read passages by well-respected scientists to the effect that we do not have free will. In particular, they read one of two passages from *The Astonishing Hypothesis*, a book

written by Francis Crick (1994), the Nobel-prize-winning scientist. The participants read statements claiming that rational, high-minded people—including most scientists, according to Crick—now recognize that free will is an illusion. Vohs and Schooler found that students exposed to the anti-free will primes were more likely to cheat than those in the control group. Additional findings by Baumeister, Masicampo and DeWall (2009) found that participants who are exposed to anti-free will primes behave more aggressively than participants exposed to pro-free will or neutral primes.

While these findings *appear* to support concerns over the anti-social consequences of relinquishing free will belief, I advise caution in drawing any universal or sweeping conclusions from them. There are powerful criticisms of the methodology of these studies which, I argue, put into doubt the supposed connection between disbelief in free will and any long-term increase in anti-social behavior. First of all, the passages used to prime disbelief in free will appear to be priming the wrong thing. Several critics have noted that instead of priming belief in *hard determinism* or *hard incompatibilism* (Pereboom 2001), the Crick excerpt subjects read is actually priming a *scientific reductionist* view of the mind, one that is proclaimed to demonstrate that free will is an illusion. Free will skepticism, however, need not entail such a reductionist view and the priming passages may be giving participants the mistaken impression that scientists have concluded that their beliefs, desires, and choice are causally inefficacious—a claim not embraced by most philosophical skeptics.⁹

⁹ This criticism has been made by Eddy Nahmias (http://gfp.typepad.com/the_garden_of_forking_pat/2008/01/on-the-benefits.html) and others. It's important that one be careful not to misrepresent or caricature the claims of the skeptic. Free will skeptics do not deny that we make choices or engage in acts of deliberation and reasoning. Rather, they hold that these acts themselves are the result of factors ultimately beyond the control of the agent (see, e.g., Pereboom 2001, 2014). It's important therefore that Vohs and Schooler prime the correct belief and not the mistaken impression that scientific findings have obviated the possibility of local control (Clark 2013). As Thomas Clark has noted, "if people come to believe they don't have ultimate control, *and* if they have something like the authors' (mis)conception of what not having it entails, then indeed they might become demoralized. This could explain the results of the study. But it's important to see what's demoralizing isn't the empirically and logically well-supported

Secondly, subsequent studies have had a difficult time replicating these findings. In fact, the study has been part of the so-called replication scandal in social psychology (see Open Science Collaboration 2015). The *New York Times* even ran a story focusing on the failure to replicate the Vohs and Schooler findings, since it was the most cited of the 100 studies included the Reproducibility Project.¹⁰ And even before this, Rolf Zwaan at the University of Rotterdam attempted to replicate the findings but was unable to do so.¹¹ In the original Vohs and Schooler study, subjects in the anti-free will condition reported weaker free will beliefs than subjects in the control condition. In contrast, Zwaan found no differences between the anti-free will condition and the control condition. He was also unable to replicate the effect on cheating—that is, he found no difference in cheating behavior between the anti-free will condition and the control condition. One possible explanation is that the original experiment was done with only 30 subjects, whereas Zwaan used 150 subjects. Another possible explanation has to do with the nature of the anti-free will prime Vohs and School used. Eddy Nahmias and Thomas Nadelhoffer also attempted to replicate the findings and, as Nahmias describes their difficulties, “the effects don’t always replicate and they only seem to work with the over-the-top primes that suggest all kinds of threats to agency” (for empirical support for this claim, see Nadelhoffer et al. forthcoming). He goes on to say, “no one has shown that telling people they lack just what philosophical (not scientific!) skeptics say they lack and nothing more has any bad effects on behavior or sense of meaning.”¹²

conclusion that we don’t have contra-causal, libertarian free will, that we are not ultimately self-created, but the inference that *if* we are not free in this way *then* we aren’t causally efficacious agents” (2013).

¹⁰ *New York Times*, “Three Popular Psychological Studies That Didn’t Hold Up” (August 28, 2015).

¹¹ He explains his failure to replicate the Vohs and Schooler experiment on his blog:

<http://rolfzwaan.blogspot.nl/2013/03/the-value-of-believing-in-free-will.html>

¹² Eddy Nahmias made these comments on the blog *Flickers of Freedom* on 3/18/2015:

http://philosophycommons.typepad.com/flickers_of_freedom/2015/03/free-will-skepticism-just-world-belief-and-punitiveness/comments/page/1/#comments

Setting aside these replication failures for the moment, there is a third concern I have and it has to do with the relevance of these findings to disbelief in free will. Assuming for the moment that the findings are real and can be replicated, there are alternative explanations for the cheating behavior that have nothing to do with belief in free will, *per se*. It is equally plausible that the cheating behavior is being driven by the more general fact that participants are being told that one of their cherished beliefs has been shown to be an illusion by science. On this alternative, the cheating behavior would have less to do with disbelief in free will and more to do with *ego depletion* more generally. That is, perhaps people are simply more likely to cheat after reading passages from scientific authorities challenging (or even mocking) one's cherished beliefs because it depletes one's self-control, which in turn weakens one's ability to trump the self-interested baseline desire to cheat.¹³ It would be rather easy, in fact, to test this alternative. One could, for example, challenge participants (say) *pro-American beliefs* by having them read extended quotes from a famous authority (say Noam Chomsky) which challenges or mocks the belief, then checking to see whether this increases one's propensity to cheat. If it does, this would support the alternative explanation above since it would suggest that the results in the Vohs and Schooler studies are not being driven by anything unique about belief in free will. Until this alternative is tested and ruled out, Vohs and Schooler's findings remain in doubt.

Lastly, these anti-social consequences come immediately following the prime, are limited in scope, and appear only to be temporary. Hence, these studies establish, *at best*, that participants were *temporarily* morally compromised after being exposed to anti-free will primes. While this may suggest that (say) I should not do my taxes immediately after being told that I do not have free will for the first time, they say nothing about the *long-term* effects of free will

¹³ I am grateful to Thomas Nadelhoffer and Eddy Nahmias for bring this objection to my attention on the now-defunct-blog *The Garden of Forking Paths* (January and February 2008).

skepticism! Once people properly understand what the denial of free will entails (and what it does *not* entail), and once they have sufficiently come to terms with it, there is no reason to think (at least not from these studies) that we would find an overall increase in anti-social behavior.

An illustrative analogy here would be the unfounded concerns voiced in the past about disbelief in God. It was long argued (and, perhaps, is still argued in certain quarters of the United States) that if people were to come to disbelieve in God, the moral fiber of society would disintegrate and we would see a marked increase in anti-social behavior. The reality, however, has turned out to be quite the opposite. Several studies have shown, for example, that murder and violent crime rates are actually *higher* in highly religious countries than in more secular countries (Jensen 2006; Paul 2005; Fajnzylber et al. 2002; Fox and Levin 2000; Zuckerman 2009). Within the United States, we see the same pattern. Atheists, for example, make up around 10% of the general population, yet they comprise only 0.2 % of the prison population (Golumbaski 1997). Census data further reveals that states with the highest murder rates tend to be the most religious. And these findings are not limited to murder rates, as rates of all violent crime tend to be higher in “religious” states (Ellison et al. 2003; Death Penalty Information Center 2008; Zuckerman 2009). And if one looks beyond crime statistics, one finds similar trends with divorce rates, domestic violence, and intolerance—e.g., studies reveal that atheists and agnostics have lower divorce rates than religious Americans (Barna Research Group Survey 1999, 2007), conservative Christian women in Canada experienced higher rates of domestic violence than non-affiliated women (Brinkerhoff et al. 1992), and non-believers are in general *less* prejudiced, anti-Semitic, racist, dogmatic, ethnocentric, closed-minded and authoritarian (Altemeyer 2003; Zuckerman 2009). Given how wrong people were about the putative harms of disbelief in God, a healthy dose of skepticism would likewise be warranted here.

Let me end this section by addressing one further concern people have with free will skepticism. Many fear that by rejecting retributivism and the concept of just deserts, we may lose our primary means to ensure punishment is proportional. If we give up on retributive justifications for punishment entirely, critics question what reason do we have to see to it that punishment is proportional to the harm caused and the type of agent? The worry is that without basic desert moral responsibility, there will be no limits on the harsh treatment meted out to criminals (and perhaps even innocent people). If especially cruel punishment works, then without the restraints imposed by considerations of just deserts there will be no limits on the harshness of punishment. It's the constraint of just deserts, critics contend, that keeps punishment proportional and allows us to respect the dignity and worth of all persons—since “even severe punishment, administered because one is a morally responsible autonomous person who *justly deserves* punishment due to his or her own choices...preserves one's status as a person and a member of the human community of responsible agents (Lewis 1971; Oldenquist 1988; and Morris 1968)” (Waller 2014a, 3).

While concerns over proportionality are important ones, the worry that relinquishing the concept of just deserts will lead to harsh and inhumane treatment of persons is overblown. Free will skeptics have two general ways of responding to this objection—one is to develop philosophical accounts of punishment consistent with free will skepticism that adequately deal with proportional punishment, the other is to examine the question empirically and ask whether belief in just deserts and retributive justice ensure punishment is proportional any better than the alternatives. With regard to the first option, a number of skeptics (including myself) have developed accounts of punishment that promise to be *more humane* than our current retributive models and that adequately respect the worth of persons—see, for example, Caruso (2016a),

Pereboom (2001, 2014), Pereboom and Caruso (forthcoming), Vilhauer (2013), and Corrado (2013). Rather than defend one of these accounts here, however, I would like to take the other approach and examine the question empirically. Since I am primarily concerned with the *real-life affects* of relinquishing belief in free will and desert-based moral responsibility in this paper, I think the empirical question is an important one. If the critics are wrong about the protective power of desert-based moral responsibility and the constraints it places on proportional punishment, then this concern loses much of its force.

Empirically speaking, then, does belief in just deserts and retributive justice ensure punishment is proportional? Bruce Waller has done an excellent job examining this question empirically and he sets up the cultural expectations as follows:

Belief in individual moral responsibility is deep and broad in both the United States and England; in fact, the belief seems to be more deeply entrenched in those cultures than anywhere else—certainly deeper there than in Europe. That powerful belief in moral responsibility is not an isolated belief, existing independently of other cultural factors; rather, it is held in place—and in turn, helps anchor—a neo-liberal cultural *system* of beliefs and values. At the opposite end of the scale are social democratic corporatist cultures like Sweden that have taken significant steps beyond the narrow focus on individual moral responsibility. With that picture in view, consider the basic protections which philosophers have claimed that the moral responsibility system afford: first, protection against extreme punitive measures; second, protection of the dignity and rights of those who are held morally responsible and subject to punishment; and third, a special protection of the innocent against unjust punishment. According to the claim that strong belief in individual moral responsibility protects against abuses, we would expect the United States and Great Britain (the neo-liberal cultures with the strongest commitment to individual moral responsibility) to score best in providing such protections; and we would predict that Norway, Sweden, and Denmark (the social democratic corporatist cultures, with much more qualified belief in individual moral responsibility) would be the worst abusers. (2014a, 6; see also 2014b)

When we actually make the comparison, however, we find the exact opposite. That is, in point of fact, the stronger the belief in moral responsibility (as in the United States) the harsher the punishment, the greater the skepticism of moral responsibility (as in Norway) the weaker the inclination toward punishment.

One can see this by examining only a few key statistics. The United States, for example, makes up only 5% of the world's population, yet houses 25% of the world's prisoners—that's one of the highest rates of incarceration known to mankind. The United States imprisons more than 700 prisoners for every 100,000 of population. Compare that to the social democratic countries with a much weaker commitment to individual moral responsibility, such as Sweden and Finland, where the imprisonment rate hovers around 70 per 100,000. In 2012, nearly 7 million U.S. residents were incarcerated, on supervised parole, or on probation. Furthermore, the U.S. not only imprisons at a much higher rate, it also imprisons in notoriously harsh conditions. Waller, for example, points out that:

In 2007, the European Court of Human Rights refused to allow the extradition of six men charged in the U.S. with terrorism, on the grounds that their confinement in U.S. supermax prisons would constitute torture and violate basic human rights; along similar lines, Amnesty International (2012) has concluded that conditions in Arizona's maximum security prisons are a violation of international standards for humane treatment, while a recent study by the New York Bar Association (2011) found that conditions in supermax prisons violated the U.S. Constitutional prohibition against cruel and unusual punishment and also violated international treaty regulations forbidding torture. (2014a, 8)

American supermax prisons are often cruel places, using a number of harsh forms of punishment including extended solitary confinement. Prisoners are isolated in windowless, soundproof cubicles for 23 to 24 hours each day, sometimes for decades. Under such conditions, prisoners experience severe suffering, often resulting in serious psychological problems. Supreme court Justice Anthony Kennedy, for instance, recently stated that, "solitary confinement literally drives men mad."¹⁴ Looked at empirically, then, it's nigh impossible to defend the claim that commitment to just deserts and retributivism *ensures* proportional and humane punishment. In fact, the opposite seems to be the case—the problem of disproportionate punishment seems to

¹⁴ He made this statement before the House Appropriations Subcommittee on Financial Services and Federal Government, as reported on in the Huffington Post on 3/24/2015:
http://www.huffingtonpost.com/2015/03/24/anthony-kennedy-solitary-confinement_n_6934550.html

grow more out of a desire for retribution and the belief that people justly deserve what they get than from free will skepticism. I therefore concur with Waller when he concludes, “it is difficult to escape the conclusion that commitment to moral responsibility exacerbates rather than prevents excessively harsh punitive policies” (2014a, 7).

I would now like to turn to the other side of the coin and argue that disbelief in free will, rather than bringing about negative consequence, could actually bring about good, freeing us from a number of harmful tendencies, beliefs, and practices.

II. (Un)just Deserts: The Dark Side of Free Will

Recent findings in moral and political psychology suggest that there may be a potential *downside* to believing in free will and moral responsibility. For the sake of this section, I will define *free will* as “a kind of power or ability to make decisions of the sort for which one can be morally responsible” (Fisher, Kane, Pereboom, and Vargas 2007, 1), where moral responsibility is understood in the *basic desert* sense. While most of the empirical work done so far has tended to focus on the potential *upside* of believing in free will (Vohs and Schooler 2008; Baumeister, Masicampo, and DeWall 2009), a growing body of research has also found some interesting, and potentially troubling, correlations between people’s free will beliefs and their other moral, religious, and political beliefs.

Recent empirical work by Jasmine Carey and Del Paulhus (2013), for example, has found that *free will beliefs correlate with religiosity, punitiveness, and political conservative beliefs and attitudes such as Just World Belief (JWB) and Right Wing Authoritarianism (RWA)*. They found these correlations by administering their The Free Will and Determinism Scale known as FAD-Plus (Paulhus and Carey 2011)—a 27-item scale used to measure people’s beliefs and attitudes about free will and related concepts—along with measures of religiosity, political

conservatism, just world beliefs, and right wing authoritarianism. It's important here to highlight just how worrisome some of these correlations are. Take, for example, a few of the sample items used to validate belief in a just world.

▪ **Just World Belief Scale (JWB) (Lerner 1980):**

- “By and large, people deserve what they get.”
- “Although evil men may hold political power for a while, in the general course of history good wins out.”
- “People who meet with misfortune have often brought it on themselves.”

And here are sample items from the Right Wing Authoritarianism Scale:

▪ **The Right Wing Authoritarianism Scale (RWA) (Altemeyer 1996):**

- “The established authorities generally turn out to be right about things, while the radicals and protestors are usually just ‘loud mouths’ showing off their ignorance.”
- “Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways of sinfulness that are ruining us.”
- “It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people’s minds.”

Many of you, I suspect, will find that these items express troublesome (and perhaps even potentially dangerous) ideas. If you do not, I will try to persuade you that you should in a moment. But first it is important to note that Carey and Paulhus also found a relationship between beliefs about free will and punishment—in particular, they found that believing more strongly in free will was correlated with punitiveness. They found that free will believers were more likely to call for harsher criminal punishment in a number of hypothetical scenarios. As Thomas Nadelhoffer and Daniela Goya Tocchetto point out, this is unsurprising: “It makes a priori sense that people who believe more strongly in free will would be more interested in giving wrongdoers their just deserts” (2013, 128). More on this in a moment.

In addition to the findings of Carey and Paulhus, Nadelhoffer and Tocchetto (2013) have also found some troubling correlations. Using a slightly different scale—The Free Will Inventory (FWI), a 29-item tool for measuring (a) the *strength* of people’s beliefs about free will,

determinism, and dualism, and (b) the *relationship* between these beliefs and related beliefs such as punishment and responsibility (Nadelhoffer et al. in prep)—Nadelhoffer and Tocchetto found, once again, a correlation between free will beliefs and JWB and RWA. They also found a number of correlations between religiosity, conservatism, and political ideology—e.g., Right Wing Authoritarianism (RWA) was strongly correlated with political conservatism, religiosity, Social Dominance Orientation (SDO), Just World Belief (JWB), and Economic System Justification (ESJ). And here, “the ESJ scale measures the tendency to perceive socioeconomic and political arrangements as inherently fair and legitimate—even at the expense of individual or group interests,” and the “SDO scale measures the degree of adherence to conservative legitimizing myths that attempt to rationalize the interests of dominant group members” (Nadelhoffer and Tocchetto 2013, 132).

These findings, I believe, support the claim that where belief in free will is strongest we tend to see increased punitiveness. In fact, empirical work has confirmed that weakening free will beliefs, either in general or by offering evidence of an individual’s diminished decisional capacity, leads to less punitiveness (Aspinwall, Brown, and Tabery 2012; Monterosso, Royzman, and Schwartz 2005; Pizarro, Uhlmann, and Salovey 2003; Shariff et al. 2013). These findings also support the claim that a conservative worldview, which is associated with free will belief, is generally correlated with an acceptance of economic inequality and a belief that the world is just and “people deserve what they get.” One should not be surprised by these correlations since the link between conservative social attitudes and free will belief has long been known (see, e.g., Atemeyer 1981; Werner 1993; Jost 2006; and Baumeister 2008). Robert Atemeyer (1981), for example, has shown that conservatives tend to be more blaming and punitive toward lawbreakers. And John Jost (2006) has found that conservatives and liberals tend to make

different trait attributions for lawbreakers—conservatives draw attributions about “sinful” character, whereas liberals point to situational causes. Hence, the personal responsibility ethic emphasized by conservatives is firmly rooted in (and perhaps even necessitates) belief in free will.

To make clear the potential danger of belief in free will and moral responsibility, let me return to the aforementioned Just World Belief (JWB) scale.

The origin of the *just world conception* can be traced back to the original empirical findings of Lerner and Simmons (1966); namely, that persons have a tendency to blame the victim of misfortunes for their own fate. Based on these empirical findings, Lerner (1965) formulated the Just World Hypothesis, whereby individuals have a need to believe that they live in a world where people generally get what they deserve. In order to measure the degree to which persons are willing to believe that everyone deserves what happens to them, Lerner (1980) developed the JWB scale. Scores on the scale have been found to correlate with the presence of frail religious beliefs (Sorrentino and Hardy 1974), and internal (as opposed to an external) locus of control, and with the likelihood of derogating innocent victims (Rubin and Peplau 1975). In addition, people who score high on JWB are more likely to trust current institutions and authorities, and to blame the poor and praise the rich for their respective fates (Jost et al. 2003). (Nadelhoffer and Tocchetto 2013, 132)

For sake of time, I will focus the remainder of my comments on just world belief. I must unfortunately leave aside the Right Wing Authoritarian (RWA) scale—but it should be noted that RWA, just like JWB, is associated with a number of troubling tendencies.¹⁵

So what’s so dangerous about just world belief? Well, belief in a just world (which, again, has been shown to be correlated with belief in free will) is a *blame-the-victim approach*. It promotes the idea that “people deserve what they get” and “people who meet with misfortunate have often brought it on themselves.” Adrian Furnham gives a succinct statement of the basic belief in a just world: “The [JWB] asserts that, quite justly, good things tend to happen to good

¹⁵ Right Wing Authoritarianism is typically defined in the literature in terms of submission to established and legitimate authorities, sanctioned general aggressiveness towards various persons, and adherence to the generally endorsed social conventions (Nadelhoffer and Tocchetto 2013, 131). “It is also closely related to a large set of ego-justifying tendencies that provide support for social ideologies such as intolerance of ambiguity, dogmatism, terror management, uncertainty avoidance, and need for cognitive closure” (Nadelhoffer and Tocchetto 2013, 131).

people and bad things to bad people despite the fact that this is patently not the case” (2003, 795).¹⁶ Lerner and Miller also acknowledge the falsehood of this belief, though they point out that it may serve a valuable function in motivating behavior and avoiding a sense of helplessness. This makes the belief difficult to shake:

Since the belief that the world is just serves such an important adaptive function for the individual, people are very reluctant to give up this belief, and they can be greatly troubled if they encounter evidence that suggests that the world is not really just or orderly after all. (1978, 1031)

Because of this, and despite its patent falsehood, belief in a just world continues to exercise a powerful (and often unconscious) influence on our attitudes about free will and moral responsibility (see Waller 2013). Yet despite whatever benefits this false belief may provide, they are bought at a high price. As Waller notes, “ironically, the costs of belief in a just world are paid in fundamental *injustice*” (2013, 72).

We can see evidence of just world belief in the unfortunate tendency, both among ordinary folk and the legal system, to blame rape victims for the circumstances. When we cannot easily and effectively help innocent victims, our belief in a just world is severely threatened, and the most convenient and common way of preserving that belief is to change the status of the victim from innocent to guilty. As Bruce Waller describes:

The case of rape victims is the most obvious and extensively studied example of this phenomenon. Rape is a brutal, demeaning, and trauma-producing crime; in a just world, no innocent person would be subjected to such a horrific fate. Thus there is a powerful tendency to see rape victims as really not quite so innocent: they dress provocatively; they were “loose” women; they did something to put themselves in that situation (they were careless about where they walked, or they drank too much); they “led him on” or were “asking for it” (thus in some parts of the world, rape victims are subject to death by stoning). Harsh cross-examination of those who claim to be rape victims are notoriously common; those harsh cross-examinations are common because they are often effective; and they are often effective because juries—eager to preserve their belief in a just world—are already inclined to see the victim of this terrible ordeal as other than innocent. (2013, 73)

¹⁶ As quoted by Bruce Waller (2013, 72).

This is just one unfortunate example of the pernicious nature of belief in a just world. Other examples include blaming those in poverty for their own circumstances, viewing criminals as “deserving what they get,” labeling those on welfare as “lazy” and “mooches,” and blaming educational inequity on the parents and children themselves—since, of course, if the world is just, then people must have brought these circumstances upon themselves. This blaming of victims (in defense of belief in a just world) has been established by numerous studies, including studies showing that the stronger the belief in a just world the greater the likelihood of blaming victims for their unfortunate fates (Wagstaff 1983; Furnham and Gunter 1984; Harper and Manasse 1992; Dalbert and Yamauchi 1994; Montada 1998).

We all know, however, (at least in our more rationally self-reflective moments) that the world is *not* just and the lottery of life is not always fair. We need to admit that luck plays a big role in what we do and the way we are. It’s my proposal that we do away with the pernicious belief in free will—and with it the myth of the “rugged individual,” the “self-made man,” the *causa sui*. If what I have argued here is correct, the concepts of free will and desert-based moral responsibility are intimately connected with a number of other potentially harmful beliefs—e.g., just world belief (JWB) and right wing authoritarianism (RWA). It’s time that we leave these antiquated notions behind, lose our moral anger, stop blaming the victim, and turn our attention to the difficult task of addressing the *causes that lead to* criminality, poverty, wealth-inequality, and educational inequity.

Let me conclude by briefly looking at another set of recent studies that reveals the potential *benefits* of diminished belief in free will. Shariff et al. (2014) hypothesized that if free will beliefs support attributions of moral responsibility, then reducing these beliefs should make people less retributive in their attitudes about punishment. In a series of four studies they tested

this prediction and found reason to be optimistic about free will skepticism. In Study 1 they found that people with weaker free-will beliefs endorsed less retributive attitudes regarding punishment of criminals, yet their consequentialist attitudes were unaffected. Study 1 therefore supports the hypothesis that free will beliefs positively predict punitive attitudes, and in particular retributive attitudes, yet it also suggests that “the motivation to punish in order to benefit society (consequentialist punishment) may remain intact, even while the need for blame and desire for retribution are forgone” (2014, 7). Shariff et al. describe the potential benefits of these findings as follows:

[A] societal shift away from endorsing free will could occur without disrupting the functional role of punishment. Society could fulfill its practical need for law and order, leaving the social benefits of punishment intact while avoiding the unnecessary human suffering and economic costs of punishment often associated with retributivism (Green & Cohen, 2004; Tonry, 2004). (Shariff et al. 2014, 7).

There is no reason to think chaos would ensue if we relinquished our commitment to retributive justice. As this study indicates, other justifications for punishment remain intact and unaffected by diminished belief in free will.

Study 2 found that experimentally diminishing free will belief through anti-free-will arguments diminished retributive punishment, suggesting a causal relationship (2014, 6). Studies 3 and 4 further found that exposure to neuroscience implying a mechanistic basis for human action—either reading popular-science articles or taking an introductory neuroscience class in college—similarly produced a reduction in retributivism. Interestingly, Studies 3 and 4 made no mention of free will; they let participants draw their own implications from the mechanistic descriptions. These results suggest that shifts in people’s philosophical worldview about free will beliefs, “even through simply learning about the brain, can affect people’s attitudes about moral responsibility, with potential broad social consequences” (2014, 6).

The findings of these studies are promising (at least for the line of argument I've been pushing here) since they show that reducing belief in free will leads people to see others' bad behavior as less morally reprehensible, resulting in less retributive punishment. This is a good thing since it diminishes a harmful kind of "moral anger" (Pereboom 2001) and an inclination toward excessive punishment. I am also encouraged by these findings that changing attitudes about free will and desert-based moral responsibility—which are probably inevitable as we learn more about neuroscience and the brain¹⁷—can help usher in an important evolution in legal thinking away from retributivism and toward a more humane and just system of punishment.

III. Conclusion

In this article, I have briefly sketched the main arguments for free will skepticism as well as the debate over their implications. Defenders of free will, along with illusionists like Saul Smilansky, maintain that belief in free will is essential for the proper functioning of society, morality, and the law. Optimistic skeptics and disillusionists, on the other hand, disagree. Making the case for disillusionism, I argued that belief in free will and desert-based moral responsibility, rather than being a good thing, actually has a dark side and that we would be better off without it. In section I, I briefly examined two common concerns people have with relinquishing the belief in free will—that it will lead to an increase in anti-social behavior and that it will lead to cruel and inhumane forms of punishment—and argued that these concerns are misguided and overblown. In section II, I then discussed recent findings in moral and political psychology which reveal interesting, and potentially troubling, correlations between people's

¹⁷ As Studies 3 and 4 revealed, people naturally become less retributive after having been exposed to neuroscientific and mechanistic descriptions of human behavior. And as Sheriff et al. note, "What is clear is that the belief in free will is intertwined with moral, legal, and interpersonal processes. As the mechanistic worldview espoused by many scientists and particularly psychologists, gain attention (e.g., Gazzinga, 2011; Monterosso & Schwartz, 2012; Nichols, 2011), the impact of these trends—good, bad, or both—calls for understanding" (2014, 7). This remains true whether or not the mechanistic worldview espoused by these thinkers is correct or a real philosophical threat to free will.

free will beliefs and their other moral, religious, and political views. In particular, belief in free will, it was found, is associated with just world belief, right wing authoritarianism, religiosity, punitiveness, and moralistic standards for judging self and other. While these considerations do not prove belief in free will is mistaken, they *do* indicate that the putative pragmatic benefits of believing in free will and desert-based moral responsibility are bogus.

References

- Altemeyer, Robert A. 1981. *Right-wing authoritarianism*. Manitoba: University of Manitoba Press.
- Altemeyer, Robert A. 1996. *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, Robert A. 2003. Why do religious fundamentalists tend to be prejudiced? *International Journal for the Psychology of Religion* 13:17-28.
- Aspinwall, L.G., Brown, T.R., and J. Tabery. 2012. The double-edged sword: Does biomechanism increase or decrease judges' sentencing of psychopaths? *Science* 337: 846-849.
- Bargh, John A. 1997. The automaticity of everyday life. In *The automaticity of everyday life: Advances in social cognition*, Vol.10, ed. Robert S. Wyer, Jr., 1-61. Mahwah, NJ: Erlbaum.
- Bargh, John A. 2008. Free will is un-natural. In *Are we free? Psychology and free will*, ed. John Baer, James C. Kaufman, and Roy F. Baumeister, 128-54. New York: Oxford University Press.
- Bargh, John A., and Tanya L. Chartrand. 1999. The unbearable automaticity of being. *American Psychologist* 54 (7): 462-79.
- Bargh, John A., and Melissa J. Ferguson. 2000. Beyond behaviorism: On the automaticity of higher mental processes. *Psychological Bulletin* 126 (6): 925-45.
- Barna Research Group Survey. 1999. U.S. divorce rates for various faith groups, age groups, and geographic areas. Available at http://www.religioustolerance.org/chr_dira.htm (last accessed 22 June 2009).
- Barna Research Group Survey. 2007. Atheists and agnostics take aim at christians. Available at <http://www.barna.org/barna-update/article/12-faithspirituality/102-atheists-and-agnostics-take-aim-at-christians> (last accessed 22 June 2009).

- Baumeister, Roy F. 2008a. Free will, consciousness, and cultural animals. In *Are we free? Psychology and free will*, eds. J. Bear, J. Kaufman, and R. Baumeister, 65-85. New York: Oxford University Press.
- Baumeister, Roy F. 2008b. Free will in scientific psychology. *Perspectives of Psychological Science* 3 (1): 14-19.
- Baumeister, Roy F., E. J. Masicampo, and C. Nathan DeWall. 2009. Prosocial benefits of feeling free: Disbelief in free will increases aggression and reduces helpfulness. *Personality and Social Psychology Bulletin* 35 (2): 260-68.
- Bloom, Paul. 2004. *Descartes' baby*. New York: Basic Books.
- Brinkerhoff, Merlin, Elaine Grandin and Eugen Lupri. 1992. Religious involvement and spousal violence: The canadian case. *Journal for the Scientific Study of Religion* 31:15–31.
- Carey, Jasmine M., and Delroy L. Paulhus. 2013. Worldview implication of believing in free will and/or determinism: Politics, morality, and punitiveness. *Journal of Personality* 81 (2): 130-41.
- Caruso, Gregg D. 2012. *Free will and consciousness: A determinist account of the illusion of free will*. Lanham, MD: Lexington Books.
- Caruso, Gregg D, ed. 2013. *Exploring the illusion of free will and moral responsibility*. Lanham, MD: Lexington Books.
- Caruso, Gregg D. 2015. If consciousness is necessary for free will, then people are less responsible than we think. *Journal of Consciousness Studies* 22 (7-8): 49-60.
- Caruso, Gregg D. 2016a. Free will skepticism and criminal behavior: A public health-quarantine model. *Southwest Philosophy Review* 32 (1): 25-48.
- Caruso, Gregg D. 2016b. Review of Bruce Waller's *Restorative free will*. *Notre Dame Philosophical Reviews*.
- Caruso, Gregg D. Forthcoming-a. Free will skepticism and the questions of creativity: Creativity, desert, and self-creation.
- Caruso, Gregg D. Forthcoming-b. Origination, moral responsibility, and life-hopes: Ted Honderich of determinism and freedom. In *Ted Honderich on consciousness, determinism, and humanity*, ed. Gregg D. Caruso. London: Palgrave Macmillan.
- Caruso, Gregg D. Forthcoming-c. Moral responsibility and the strike back emotion: Comments on Bruce Waller's *The stubborn system of moral responsibility*. *Syndicate Philosophy* 1 (1): July/August 2016.

Caruso, Gregg D., and Stephen Morris. Forthcoming. Compatibilism and retributivist desert moral responsibility: On what is of central philosophical and practical importance.

Clark, Thomas. 2012. *Singling out the agent: Review of Against Moral Responsibility by Bruce Waller*. Naturalism.org: <http://www.naturalism.org/Wallerreview.htm>.

Clark, Thomas. 2013. Experience and autonomy: Why consciousness does and doesn't matter. In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 239-254. Lanham, MD: Lexington Books.

Corrado, Michael L. 2013. Why do we resist hard incompatibilism? Thoughts on freedom and punishment. In *The future of punishment*, ed. Thomas Nadelhoffer. New York: Oxford University Press.

Crick, Francis. 1994. *The astonishing hypothesis*. New York: Scriber.

Dalbert, Claudia, and Lois Yamauchi. 1994. Belief in a just world and attitudes toward immigrants and foreign workers: A cultural comparison between Hawaii and Germany. *Journal of Applied Social Psychology* 24:1612-26.

Davies, Paul Sheldon. 2009. *Subjects of the world: Darwin's rhetoric and the study of agency in nature*. Chicago: University of Chicago Press.

Death Penalty Information Center. 2008. Regional murder rates, 2001-2007. Available at <http://www.death-penaltyinfo.org/murder-rates-1996-2007> (last accessed 22 June 2009).

d'Holbach, Baron Paul Henri. 1770. *The system of nature*. Amsterdam.

Doris, John M. 2002. *Lack of character: Personality and moral behavior*. Cambridge: Cambridge University Press.

Double, Richard. 1991. *The non-reality of free will*. Oxford: Oxford University Press.

Ellison, Christopher, Jeffrey Burr and Patricia McCall. 2003. The enduring puzzle of southern homicide. *Homicide Studies* 7: 326-52.

Evatt, Cris. 2010. *The myth of free will*. Rev. and exp. ed. Sausalito, CA: Cafe Essays.

Fajnzylber, Oablo, Daniel Lederman and Norman Loatza. 2002. Inequality and violent crime. *Journal of Law and Economics* XLV: 1-40.

Fox, James and Jack Levin. 2000. *The will to kill*. Boston, MA: Allyn and Bacon.

Furnham, Adrian. 2003. Belief in a just world: Research progress over the past decade. *Personality and Individual Differences* 34:795-817.

Furnham, Adrian, and B. Gunter. 1984. Just world beliefs and attitudes towards the poor. *British*

Journal of Social Psychology 15:265-69.

Fischer, John Martin. 1994. *The metaphysics of free will: A study of control*. Malden, MA: Blackwell Publishing.

Fischer, John Martin, Robert Kane, Derk Pereboom, and Manuel Vargas. 2007. *Four views on free will*. Oxford: Blackwell Publishing.

Fischer, John Martin, and Mark Ravizza. 1998. *Responsibility and control: A theory of moral responsibility*. Cambridge: Cambridge University Press.

Gazzinga, Michael. 2011. *Who's in charge? Free will and the science of the brain*. New York: Harper.

Greene, Joshua D., and Jonathan Cohen. 2004. For the law, neuroscience changes nothing, and everything. *Philosophical Transactions of the Royal Society of London, B* 359:1775-85. doi:10.1098/rstb.2004.1546 (accessed October 26, 2012).

Golumbaski, Denise. 1997. Available at http://www.adherents.com/misc/adh_prison.html#altformat.

Haidt, Jonathan. 2001. The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review* 108:814-34.

Harper, David, and Paul Manasse. 1992. The just world and the third world: British explanations for poverty abroad. *Journal of Social Psychology* 132:783-85.

Harris, Sam. 2012. *Free will*. New York: Free Press.

Honderich, Ted. 1988. *A Theory of determinism: The mind, neuroscience, and life-hopes*. Oxford: Oxford University Press. Republished in two volumes: *Mind and brain* and *The consequences of determinism*, 1990.

Honderich, Ted. 2002. *How free are you?: The determinism problem*. 2nd ed. Oxford: Oxford University Press.

Jensen, G.F. 2006. Religious cosmologies and homicide rates among nations. *The Journal of Religion and Society* 8:1-13.

Jost, John T. 2006. The end of the end of ideology. *American Psychologist* 61:651-70.

Jost, John T., Sally Blount, Jeffrey Pfeffer, and Gyorgy Hunyady. 2003. Fair market ideology: Its cognitive-motivational underpinnings. *Research in Organizational Behavior* 25:53-91.

- Jost, John T., J. Glaser, A. W. Kruglanski, and F. Sulloway. 2003b. Exceptions that prove the rule: Using a theory of motivated social cognition to account for ideological incongruities and political anomalies. *Psychological Bulletin* 129:383-93.
- King, Matt, and Peter Carruthers. 2012. Moral responsibility and consciousness. *Journal of Moral Philosophy* 9:200-228.
- Lerner, Melvin J. 1965. Evaluation of performance as a function of performer's reward and attractiveness. *Journal of Personality and Social Psychology* 1:355-60.
- Lerner, Melvin J. 1980. *The belief in a just world: A fundamental delusion*. New York: Plenum Press.
- Lerner, Melvin J., and Dale T. Miller. 1978. Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin* 85:1030-51.
- Lerner, Melvin J., and Carolyn H. Simmons. 1966. Observer's reaction to the "innocent victim": Compassion or rejection? *Journal of Personality and Social Psychology* 4:203-10.
- Levy, Neil. 2011. *Hard luck: How luck undermines free will and moral responsibility*. Oxford: Oxford University Press.
- Levy, Neil. 2014. *Consciousness and moral responsibility*. New York: Oxford University Press.
- Lewis, C. S. 1971. The humanitarian theory of punishment. In *God in the dock: Essays on theology and ethics*, 287-294. Cambridge: William B. Eerdmans Publishing.
- Libet, Benjamin. 1985. Unconscious cerebral initiative and the role of conscious will in voluntary action. *Behavioral and Brain Science* 8:529-66.
- Libet, Benjamin. 1999. Do we have free will? *Journal of Consciousness Studies* 6 (8-9): 47-57. Reprinted in *The Oxford handbook of free will*, ed. Robert Kane, 551-64. New York: Oxford University Press, 2002.
- Libet, Benjamin, Curtis A. Gleason, Elwood W. Wright, and Dennis K. Pearl. 1983. Time of conscious intention to act in relation to onset of cerebral activity (readiness-potential): The unconscious initiation of a freely voluntary act. *Brain* 106:623-42.
- Miles, James B. 2011. 'Irresponsible and a disservice': The integrity of social psychology turns on the free will dilemma. *British Journal of Social Psychology* 2011.
- Montada, Leo. 1998. Belief in a just world: A hybrid of justice motive and self-interest. In *Responses to victimizations and belief in the just world*, ed. Leo Montada and Melvin Lerner, 217-45. New York: Plenum.
- Monterosso, J., Royzman, E.B., and B. Schwartz (2005). Explaining away responsibility: Effects

of scientific explanation on perceived culpability. *Ethics & Behavior* 15: 139-158.

Monterosso, J., Royzman, E.B., and B. Schwartz. 2012. Did your brain make you do it? *New York Times*. July 27, 2014.

Morris, Herbert. 1968. Persons and punishment. *The Monist* 52: 475-501.

Nadelhoffer, Thomas. 2011. The threat of shrinking agency and free will disillusionism. In *Conscious will and responsibility: A tribute to Benjamin Libet*, ed. L. Nadel and W. Sinnott-Armstrong, 173-88. New York: Oxford University Press.

Nadelhoffer, Thomas. 2014. Dualism, libertarianism, and scientific skepticism about free will. In *Moral psychology: Neuroscience, free will, and responsibility*, Vol. 4, ed. W. Sinnott-Armstrong, pp. 209-216. Cambridge, MA: MIT Press.

Nadelhoffer, Thomas, Eddy Nahmias, L. Ross, J. Shepard, and Chandra Sripada. In preparation. The free will inventory: Measuring beliefs about agency and responsibility. Manuscript in preparation at the College of Charleston.

Nadelhoffer, Thomas, and Daniela Goya Tocchetto. 2013. The potential dark side of believing in free will (and related concepts): Some preliminary findings. In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 121-140. Lanham, MD: Lexington Books.

Nadelhoffer, Thomas, Jennifer Cole Wright, and Daniela Goya Tocchetto. Forthcoming. In *Neuroexistentialism: Meaning, morals, and purpose in the age of neuroscience*, eds. Gregg D. Caruso and Owen Flanagan. New York: Oxford University Press.

Nichols, Shaun. 2007. After incompatibilism: A naturalistic defense of the reactive attitudes. *Philosophical Perspectives* 21:405-28.

Nichols, Shaun. 2011. Is free will an illusion? *Scientific American Mind* 22: 18-19.

Nietzsche, Friedrich. 1886/1992. *Beyond good and evil*. Trans. Walter Kaufmann. New York: Random House.

Nisbett, Richard E., and Timothy D. Wilson. 1977. Telling more than we can know: Verbal reports on mental processes. *Psychological Review* 84:231-59.

Oerton, Richard. 2012. *The nonsense of free will: Facing up to a false belief*. Leicestershire: Troubador Publishing.

Oldenquist, Andrew. 1988. An explanation of retribution. *Journal of Philosophy* 85: 464-478.

Open Science Collaboration. 2015. Estimating the reproducibility of psychological science *Science* 349, (2015); DOI: 10.1126/science.aac4716

Paul, Gregory S. 2005. Is the Baylor religion study reliable?: An analysis from the council for secular humanism. Available at http://gal.org/center_for_inquiry/notice-description.tcl?newsletter_id=11076763.

Paulhus, Delroy L., and Jasmine M. Carey. 2011. The FAD-Plus: Measuring lay beliefs regarding free will and related constructs. *Journal of Personality Assessment* 93:96-104.

Pearce, Jonathan M. S. 2010. *Free will?: An investigation into whether we have free will, or whether I was always going to write this book*. Ginger Prince Publications.

Pereboom, Derk. 2001. *Living without free will*. New York: Cambridge University Press.

Pereboom, Derk. 2013a. Optimistic skepticism about free will. In *The philosophy of free will: Selected contemporary readings*, ed. Paul Russell and Oisin Deery, 421-49. New York: Oxford University Press.

Pereboom, Derk. 2013b. Skepticism about free will. In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 19-40. Lanham, MD: Lexington Books.

Pereboom, Derk. 2014. *Free will, agency, and meaning in life*. Oxford: Oxford University Press.

Pereboom, Derk, and Gregg D. Caruso. Forthcoming. Hard-incompatibilist existentialism: Neuroscience, punishment, and meaning in life. In *Neuroexistentialism: Meaning, morals, and purpose in the age of neuroscience*, eds. Gregg D. Caruso and Owen Flanagan. New York: Oxford University Press.

Pizarro, D., Uhlmann, E., and P. Salovey. 2003. Asymmetry in judgments of moral blame and praise: The of perceived metadesires. *Psychological Science* 14: 267-272.

Rubin, Zick, and Letitia A. Peplau. 1975. Who believes in a just world? *Journal of Social Issues* 31:65-89.

Shariff, A.F., Greene, J.D., Karremans, J.C., Luguri, J., Clark, C.J., Schooler, J.W., Baumesiter, R.F., and K.D. Vohs. 2014. Free will and punishment: A mechanistic view of human nature reduces retribution. *Psychological Science* published online June 10: 1-8.

Sie, Maureen. 2013. Free will, an illusion? An answer from a pragmatic sentimentalist point of view. In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 273-290. Lanham, MD: Lexington Books.

Sie, Maureen, and Arno Wouters. 2010. The BCN challenge to compatibilist free will and personal responsibility. *Neuroethics* 3 (2): 121-33.

Smilansky, Saul. 2000. *Free will and illusion*. New York: Oxford University Press.

- Smilansky, Saul. 2013. Free will as a case of “crazy ethics.” In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 103-120. Lanham, MD: Lexington Books.
- Sommers, Tamler. 2005. *Beyond freedom and resentment: An error theory of free will and moral responsibility*. PhD diss., Duke University.
- Sommers, Tamler. 2007. The objective attitude. *Philosophical Quarterly* 57 (228): 321-41.
- Sommers, Tamler. 2008. No soul? I can live with that. Not free will? Ahhhh!!!: Is Giving up on free will really so bad?” *Psychology Today*, April 2, 2008.
- Soon, Chun Siong, Marcel Brass, Hans-Jochen Heinze, and John-Dylan Haynes. 2008. Unconscious determinants of free decisions in the human brain. *Nature Neuroscience* 11 (5): 543-45.
- Sorrentino, Richard M., and Jack Hardy. 1974. Religiousness and derogation of an innocent victim. *Journal of Personality* 42:372-82.
- Strawson, Galen. 1986. *Freedom and belief*. Oxford: Oxford University Press.
- Strawson, Galen. 1994. The impossibility of moral responsibility. *Philosophical Studies* 75 (1): 5-24.
- Strawson, Galen. 2010. *Freedom and belief*. Rev. ed. Oxford: Oxford University Press.
- Strawson, Galen. 2011. The impossibility of ultimate responsibility? In *Free will and modern science*, ed. Richard Swinburne. London: British Academy.
- Strawson, P. F. 1962. Freedom and resentment. *Proceedings of the British Academy* 48:1-25. Reprinted in *Free will*, ed. Derk Pereboom, 119-42. Hackett.
- Tonry, M. 2004. *Thinking about crime: Sense and sensibility in American penal culture*. New York: Oxford University Press.
- Vilhauer, Benjamin. 2009. Free will skepticism and personhood as a desert base. *Canadian Journal of Philosophy* 39 (3): 489-511.
- Vilhauer, Benjamin. 2010. Persons, punishment, and free will skepticism. *Philosophical Studies* ‘Online First.’ doi: 10.1007/s11098-011-9752-z, forthcoming in print.
- Vilhauer, Benjamin. 2013. The people problem. In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 141-160. Lanham, MD: Lexington Books.
- Vilhauer, Benjamin. Forthcoming. Human rights and moral responsibility skepticism. *Southwest Philosophy Review* 30 (1): 19-25.

Vohs, Kathleen D., and Jonathan W. Schooler. 2008. The value of believing in free will: Encouraging a belief in determinism increases cheating. *Psychological Science* 19:49-54.

Wagstaff, G. F. 1983. Correlates of the just world in Britain. *Journal of Social Psychology* 121:145-46.

Waller, Bruce. 2011. *Against moral responsibility*. Cambridge, MA: MIT Press.

Waller, Bruce. 2013. The stubborn illusion of moral responsibility. In *Exploring the illusion of free will and moral responsibility*, ed. Gregg D. Caruso, 65-86. Lanham, MD: Lexington Books.

Waller, Bruce. 2014a. The culture of moral responsibility. *Southwest Philosophical View* 30 (1): 3-17.

Waller, Bruce. 2014b. *The stubborn system of moral responsibility*. Cambridge, MA: MIT Press.

Waller, Bruce. 2015. *Restorative free will: Back to the biological base*. Lanham, MA: Lexington Books.

Wegner, Daniel M. 2002. *The illusion of conscious will*. Cambridge, MA: Bradford Books, MIT Press.

Wegner, Daniel M., and Thalia Wheatley. 1999. Apparent mental causation: Sources of the experience of will. *American Psychologist* 54:480-91.

Weiner, B. 1993. On sin and sickness: A theory of perceived responsibility and social motivation. *American Psychologist* 48:957-65.

Wilson, Timothy. 2002. *Strangers to ourselves: Discovering the adaptive unconscious*. Cambridge, MA: The Belknap Press of Harvard University Press.

Wolf, Susan. 1981. The importance of free will. *Mind* 90 (359): 386-405.

Zuckerman, Phil. 2009. Atheism, secularity, and well-being: How the findings of social science counter negative stereotypes and assumptions. *Sociology Compass* 3/6:949-71.