

Free Will Skepticism and Its Implications: An Argument for Optimism

Gregg D. Caruso

Forthcoming in *Free Will Skepticism in Law and Society*,
eds. Elizabeth Shaw, Derk Pereboom, and Gregg D. Caruso. Cambridge University Press

Free will skepticism maintains 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 and praise, punishment and reward. In recent years, a number of contemporary philosophers have advanced and defended versions of free will skepticism or skepticism about moral responsibility, including Derk Pereboom (2001, 2014), Galen Strawson (1986/2010, 1994), Neil Levy (2011), Bruce Waller (2011, 2015), and myself (Caruso 2012, forthcoming-a). Critics, however, often complain that adopting the skeptical perspective would have dire consequences for ourselves, society, morality, meaning, and the law. They fear, for instance, that relinquishing belief in free will and basic desert moral responsibility would leave us unable to adequately deal with criminal behavior, increase anti-social conduct, and undermine meaning in life.

In response, free will skeptics argue that life without free will and basic desert moral responsibility would not be as destructive as many people believe. According to *optimistic skeptics*, prospects of finding meaning in life or of sustaining good interpersonal relationships, for instance, would not be threatened (see Pereboom 2001, 2014; Waller 2011; Pereboom and Caruso 2018; Caruso 2017b). And although retributivism and severe punishment, such as the death penalty, would be ruled out, incapacitation and rehabilitation programs would still be

justified (see, e.g., Pereboom 2001, 2014; Levy 2012; Caruso 2016, 2017a, forthcoming-a; Pereboom and Caruso 2018; Vilhauer 2010, 2013; and Corrado 2013).

Who then is correct? What would the actual consequences of embracing free will skepticism be? In this paper I will argue 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 therefore one of *optimistic skepticism* and *disillusionism*.¹ 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, I maintain, is the belief that individuals *justly deserve* what they get. The idea of *just deserts*—which is central to the moral responsibility system (see Waller 2011, 2013)—is a pernicious one. For one, it often encourages punitive excess in criminal justice, including extreme forms of retributive punishment such as the death penalty. It is also used to perpetuate social and economic inequalities. The simple fact is that what we do and the way we are is ultimately the result of factors beyond our control—whether those be determinism, chance, or luck. 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 take *free will* to mean the control in action needed for an agent to be morally responsible in the *basic desert* sense—the sense needed to justify certain kinds of *desert-based* judgments, attitudes, or treatments, such as resentment, indignation, moral anger, backward-looking blame, and retributive punishment (see Pereboom 2001, 2014; Caruso and Morris 2017)—and I will focus on the putative pragmatic benefits of believing in free will and

¹ See the opening chapter of this volume for a comprehensive summary of *optimistic skepticism* and *disillusionism* and how they differ from, say, the *illusionism* of Saul Smilansky (2000, 2013, chapter in this volume). Other skeptics who are optimistic about the implications of life without free will and/or basic desert moral responsibility include Pereboom (2001, 2013a, 2013b, 2014), Waller (2011, 2013, 2014b), Levy (2011), and Milam (2016). For a defense of disillusionism, see Nadelhoffer (2011).

desert-based moral responsibility, rather than arguing for free will skepticism directly. This is because, 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 discuss two common concerns people have with relinquishing the belief in free will and argue that they are unfounded. In section II, I 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.²

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 place 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, 2014; Pereboom and Caruso 2018), 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

² These two studies are often cited as empirical support for the claim that stronger free will beliefs are negatively associated with increased anti-social behavior. Additional studies have purported to find that stronger free will beliefs are positively associated with helpfulness, gratitude, job performance, and making amends for one's transgressions (see Baumeister et al. 2009; MacKenzie, Vohs, and Baumeister 2014; Stillman et al. 2010; Stillman and Baumesiter 2010). I will focus here primarily on the former claim, but much of what I will argue also applies to these later studies as well.

that scientists have concluded that their beliefs, desires, and choice are causally inefficacious—a claim not embraced by most philosophical skeptics.³

Furthermore, subsequent studies have had a difficult time replicating these findings and they have been involved in the so-called replication scandal in social psychology (see Carey and Roston 2015; Open Science Collaboration 2015; Zwaan 2013). The *New York Times*, for example, ran a story focusing on the failure to replicate the findings of Vohs and Schooler since it was the most cited of the 100 studies included the Reproducibility Project (Carey and Roston 2015; Open Science Collaboration 2015). And even before the Reproducibility Project was unable to replicate the findings, Rolf Zwaan (2013) at the University of Rotterdam had similar difficulties. 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—i.e., 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 Schooler used. Eddy Nahmias, in describing his difficulties in trying to replicate the findings, writes: “the effects don’t always replicate and they only seem to work with the over-the-top primes that suggest all

³ This criticism has been made by Eddy Nahmias on the Garden of Forking Paths Blog (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 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).

kinds of threats to agency.” 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.”⁴

Additional support for Nahmias’s claim can be found in studies conducted by Nadelhoffer and Wright (2018) and Crone and Levy (2018). Crone and Levy (2018), for instance, conducted four studies originally concerned with identifying possible mediators and/or moderators of the reported positive association between free will beliefs and various desirable moral characteristics (e.g., greater helpfulness, less dishonesty). In their attempt to further study these correlations, however, they unexpectedly found *no association between free will beliefs and moral behavior*. They go on to conclude that there is currently no reason to think free will believers are nicer people or that diminishing free will beliefs will increase anti-social behavior. Nadelhoffer and Wright (2018) point to additional problems with the kinds of vignette-based primes used in the literature on pro-/anti-social effects of belief in free will. In their studies, they used three different primes specially designed to manipulate people’s beliefs about free will. In each case, they found that the primes failed to move participant’s beliefs. They write:

In this respect, our work should serve as a cautionary tale for philosophers, psychologists, and pundits who want to discuss the potential ramifications of the supposed death of free will. For while it’s certainly possible for people to change their minds about free will, it’s not clear that researchers have figured out effective, reliable, and stable methods for bringing these epistemic changes about (even temporarily). (2018: 272)

After their initial primes failed to have the effects they intended, they decided to try the prime used by Vohs and Schooler since, in their words, “As far as anti-free will primes go, this is bludgeon” (2018: 288). Here people did show a decrease in free will beliefs, but (as pointed out

⁴ 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

earlier) the problem with this prime is that “It not only challenges free will but it also challenges dualism, the soul, self-awareness, and even choice itself” (2018: 288).

Setting aside these replication and priming concerns for a 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.⁵ 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. This is very important to keep in mind since, even if we were to set aside the previous two concerns, these studies establish, *at best*, that participants

⁵ 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).

were *temporarily* morally compromised after being exposed to anti-free will primes. They say absolutely nothing about the *long-term* effects of free will 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. Census data, for example, 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 it is often argued that 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 (see, e.g., Lewis 1971; Oldenquist 1988; and Morris 1968).

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. The first is to develop a philosophical account of punishment or incapacitation consistent with free will skepticism that adequately deals with proportionality. Here, skeptics have offered a number of different accounts—see, for example, Caruso (2016, 2017a, 2019, forthcoming-a), Pereboom (2001, 2014), Pereboom and Caruso (2018), Vilhauer (2013), and Corrado (2013). My own preferred

alternative for addressing criminal behavior is called the *public health-quarantine model*. The model, I maintain, not only provides a justification for the incapacitation of dangerous criminals consistent with free will skepticism, it also provides a broader and more comprehensive approach to criminal behavior generally since it draws on the public health framework and prioritizes prevention and social justice. The core idea of the model is that the right to harm in self-defense and defense of others justifies incapacitating the criminally dangerous with the minimum harm required for adequate protection. The model, however, would not justify the sort of criminal punishment whose legitimacy is most dubious, such as death or confinement in the most common kinds of prisons in our society. In fact, the model is completely non-punitive and requires special attention to the wellbeing and dignity of criminals that would change much of current policy. Furthermore, the public health component of the theory prioritizes prevention and social justice and aims at identifying and taking action on the social determinants of health and criminal behavior. While the model does not preserve retributive proportional punishment—since it rejects retributive punishment altogether—it does maintain the *principle of least infringement*, which holds that the least restrictive measures should be taken to protect public health and safety (Caruso 2016, 2017a; Pereboom and Caruso 2018). This ensures that criminal sanctions will be proportionate to the danger posed by an individual, and any sanctions that exceed this upper bound will be unjustified. I contend that adopting the public health-quarantine model will lead to *more humane and effective* practices and policies while continuing to respect the worth of persons.⁶

The second approach is to examine the question empirically and ask whether belief in just deserts and retributive justice *ensures* punishment is proportional any better than the alternatives.

⁶ For a full defense of the public health-quarantine model see (Caruso 2016, 2017a, 2019, forthcoming-a; Pereboom and Caruso 2018; Pereboom 2001, 2014).

Since I am here primarily concerned with the *real-life effects* of relinquishing belief in free will and desert-based moral responsibility, 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 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. For example:

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. (Waller 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.”⁷ 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 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).

Recent empirical work in social psychology further indicates that how we assign responsibility is correlated with prior judgments of what counts as being morally bad, which are in turn dependent upon other, larger, social and cultural factors. This is also problematic for those who claim that preserving belief in moral responsibility will keep punishment proportional in any objective sense. Take, for example, psychologist Mark Alicke's *culpable control model* of

⁷ 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

blame. It proposes that our desire to blame someone intrudes on our assessments of that person's ability to control his or her thoughts or behavior. As Valerie Hardcastle describes:

Deciding that someone is responsible for an act, which is taken to be the conclusion of a judgment, is actually part of our psychological process of assessing blame. If we start with a spontaneous negative reaction, then that can lead to our hypothesizing that the source of the action is blameworthy as well as to an active desire to blame that source. This desire, in turn, skews our interpretations of the available evidence such that it supports our blame hypothesis. We highlight evidence that indicates negligence, recklessness, impure motives, or a faulty character, and we ignore evidence that suggests otherwise. In other words, instead of dispassionately judging whether someone is responsible, we validate our spontaneous reaction of blameworthiness. (2018: 320)

In fact, data suggests that we often exaggerate a person's actual or potential control over an event to justify our blame judgment and we will even change the threshold of how much control is required for a blame judgment (Alicke et al. 2008; see also Alicke 1994, 2008; Clark et al. 2014; Everett et al., forthcoming; Berg and Vidmar 1975; Eften 1974; Lagnado and Channon 2008; Lerner and Miller 1978; Lerner et al. 1976; Neimeth and Sosis 1973; Schlenker 1980; Snyder et al. 1983; Sosis 1974).

A recent set of studies by Cory Clark and his colleagues (2014), for example, found that a key factor promoting belief in free will is a fundamental desire to blame and hold others morally responsible for their wrongful behaviors. Across five studies they found evidence that greater belief in free will is due to heightened punitive motivations. In one study, for instance, an ostensibly real classroom cheating incident led to increased free will beliefs, presumably due to heightened punitive motivations. In a second study, they found that the prevalence of immoral behavior, as measured by crime and homicide rates, predicted free will belief on a country level. These findings suggest that our desire to blame and hold others morally responsible comes first and drives our belief in free will, rather than the other way around.

Other researchers have found that our judgment on whether an action was done on purpose or not is influenced by our moral evaluation of the outcome of certain actions—i.e., whether we morally like or dislike it (Nadelhoffer 2006). Additional findings have found an asymmetric understanding of the moral nature of our own actions and those of others, such that we judge our own actions and motivations as more moral than those of the average person (Epley and Dunning 2000). As Maureen Sie describes:

In cases of other people acting in morally wrong ways we tend to explain those wrongdoings in terms of the agent's lack of virtue or morally bad character traits. We focus on those elements that allow us to blame agents for their moral wrongdoings. On the other hand, in cases where we ourselves act in morally reprehensible ways we tend to focus on exceptional elements of our situation, emphasizing the lack of room to do otherwise. (2013: 283)

These empirical findings help support the claim that our moral responsibility practices are often driven, possibly primarily driven, by our desire to blame, punish, and strike back at moral transgressors, rather than, and often in lieu of, our more rational and objective judgments about free will, control, and moral responsibility.

II. Unjust Deserts: The Dark Side of Free Will

Let me now 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. While most of the empirical work done thus far has focused on the potential *upside* of believing in free will, there is now a growing body of evidence suggesting that disbelief in free will may have certain *positive* effects (see, e.g., Carey and Paulhus 2013; Nadelhoffer and Tocchetto 2013; Aspinwall, Brown, and Tabery 2012; Monterosso, Royzman, and Schwartz 2005; Pizarro, Uhlmann, and Salovey 2003; Shariff et al. 2014; Earp et al. 2018). Recent findings in moral and political psychology, for example, suggest that there may be a potential *downside* to believing in free will and moral responsibility since

there are 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 increased 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 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.”

These items express troublesome and perhaps even potentially dangerous ideas, as I will try to explain in a moment. 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 increased punitiveness. They found that free will believers were more likely to

call for harsher criminal punishment in a number of hypothetical scenarios. This is unsurprising since, as Thomas Nadelhoffer and Daniela Goya Tocchetto point out: “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).

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 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; Weiner 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. As Nadelhoffer and Tocchetto describe:

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). (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.⁸

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 misfortune 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 people and bad things to bad people despite the fact that this is patently not the case” (2003: 795). 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).

⁸ 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). Furthermore, “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).

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)

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 (see Levy, 2011; Strawson 2018: ch.4; Caruso,

forthcoming-b). It's my proposal that we do away with the pernicious belief in free will—and with it the myth of *just deserts*. 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 (see Caruso 2017a).

Let me conclude by discussing one last set of studies that reveal 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 brain⁹—can help usher in an important evolution in legal

⁹ 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 Shariff 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 and 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.

thinking away from retributivism and toward practices and policies that are more humane, effective, and just.

III. Conclusion

I have here examined some of the practical implications of free will skepticism and argued that we should be optimistic about the prospects of life without free will. Defenders of free will, along with illusionists like Saul Smilansky (2000, 2013; see also chapter in this volume), 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 optimism, 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. I argued that these concerns are misguided and overblown. In section II, I then discussed recent empirical findings in moral and political psychology that reveal interesting, and potentially troubling, correlations between people's free will beliefs and their other moral, religious, and political views—i.e., belief in free will is associated with increased belief in a just world, right wing authoritarianism, religiosity, punitiveness, and moralistic standards for judging self and other. We found that these associations, especially belief in a just world and the punitive desire to blame and punish others, often lead to negative and counterproductive practices, policies, and tendencies. 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

- Alicke, M. D. 1994. Evidential and extra-evidential evaluations of social conduct. *Journal of Social Behavior and Personality* 9: 591-615.
- Alicke, M. D. 2008. Blaming badly. *Journal of Cognition and Culture* 8: 179-86.
- Alicke, M. D., J. Buckingham, E. Zell, and T. Davis. 2008. Culpable control and counterfactual reasoning in the psychology of blame. *Personality and Social Psychology Bulletin* 34: 1371-81.
- 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.
- 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. 2008. 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., 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.
- Berg, K. S., and N. Vidmar. 1975. Authoritarianism and recall of evidence about criminal behavior. *Journal of Research in Personality* 9: 147-57.
- 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.

Carey, B., and M. Roston. 2015. Three popular psychology studies that didn't hold up. *The New York Times*. Retrieved from <https://www.nytimes.com/interactive/2015/08/28/science/psychology-studies-redid.html>

Caruso, Gregg D. 2012. *Free will and consciousness: A determinist account of the illusion of free will*. Lanham, MD: Lexington Books.

Caruso, Gregg D. 2016. Free will skepticism and criminal behavior: A public health-quarantine model. *Southwest Philosophy Review* 32 (1): 25-48.

Caruso, Gregg D. 2017a. *Public Health and Safety: The Social Determinants of Health and Criminal Behavior*. UK: ResearchLinks Books.

Caruso, Gregg D. 2017b. Free will skepticism and the questions of creativity: Creativity, desert, and self-creation. *Ergo* 3 (23): 591-607.

Caruso, Gregg D. Forthcoming-a. *Unjust Deserts: Free Will, Moral Responsibility, and Legal Punishment*.

Caruso, Gregg D. Forthcoming-b. A defense of the luck pincer: Why luck (still) undermines free will and moral responsibility.

Caruso, Gregg D. 2019. The public health-quarantine model. In *Oxford Handbook on Moral Responsibility*, eds. Dana Nelkin and Derk Pereboom. New York: Oxford University Press.

Caruso, Gregg D., and Stephen Morris. 2017. Compatibilism and retributivist desert moral responsibility: On what is of central philosophical and practical importance. *Erkenntnis* 82: 837-55.

Clark, C. J., P. H. Ditto, A. F. Shariff, J. B. Luguri, J. Knobe, and R. F. Baumeister. 2014. Free to punish: A motivated account of free will belief. *Attitudes of Social Cognition* 106 (4): 501-513.

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.

Crone, Damien, and Neil Levy. 2018. Are free will believers nicer people (Four studies suggest not). Open Science Framework, January 10. Retrieved from osf.io/m9sre

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.

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).

Eftan, M. G. 1974. The effect of physical appearance on the judgment of guilt, interpersonal attraction, and severity of recommended punishment in a simulated jury task. *Journal of Research and Personality* 8: 45-54.

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

Epley, Nicholas, and David Dunning. 2000. Feeling “holier than thou”: Are self-serving assessments produced by errors in self or social prediction? *Journal of Personality and Social Psychology* 79: 861-75.

Earp, B. D., J. A. C. Everett, T. Nadelhoffer, G. D. Caruso, A. Shariff, and W. Sinnott-Armstrong. 2018. Determined to be humble? Exploring the relationship between belief in free will and humility. *PsyArXiv*. Available at <https://psyarxiv.com/3bxra>

Everett, J. A. C., J. B. Luguri, C. J. Clark, B. D. Earp, P. H. Ditto, and A. F. Shariff. Forthcoming. Free to blame? Political differences in free will belief are driven by differences in moralization.

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.

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).

- Hardcastle, Valerie. 2018. The neuroscience of criminality and our sense of justice: An analysis of recent appellate decisions in criminal cases. In *Neuroexistentialism: Meaning, morals, and purpose in the age of neuroscience*, Gregg D. Caruso and Owen Flanagan (eds). New York: Oxford University Press.
- 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.
- 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.
- Langado, D. A., and S. Channon. 2008. Judgments of cause and blame: The effects of intentionality and foreseeability. *Cognition* 108: 754-70.
- 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., Dale T. Miller, and J. G. Holmes. 1976. Deserving and the emergence of forms of justice. In *Advances in experimental social psychology* (eds.) L. Berkowitz and E. Walster.
- 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. 2012. Skepticism and sanctions: The benefit of rejecting moral responsibility. *Law and Philosophy* 31 (5): 477-93.
- 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.

MacKenzie, M. J., K. D. Vohs, and B. F. Baumeister. 2014. You didn't have to do that: Belief in free will promotes gratitude. *Personality and Social Psychology Bulletin*.
<http://doi.org/10.1177/0146167214549322>

Milam, Per-Erik. 2016. Reactive attitudes and personal relationships. *Canadian Journal of Philosophy* 46(1): 102-122.

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. 2006. Bad acts, blameworthy agents, and intentional actions: Some problems for juror impartiality. *Philosophical Explorations* 9(2): 203-219.

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, 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, and Jennifer Cole Wright. 2018. Humility, free will beliefs, and existential angst: How we got from a preliminary investigation to a cautionary tale. In *Neuroexistentialism: Meaning, morals, and purpose in the age of neuroscience*, eds. Gregg D. Caruso and Owen Flanagan, pp.269-297. New York: Oxford University Press.

Neimeth, C., and R. H. Sosis. 1973. A simulated jury: Characteristics of the defendant and the jurors. *Journal of Social Psychology* 90: 221-29.

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

- 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(6251), aac4716: 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://ga1.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.
- 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 Oisín 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. 2018. 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.
- Schlenker, B. R. 1980. *Impression management: The self-concept, social identity, and interpersonal relations*. Brooks/Cole.
- 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.

- 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.
- Snyder, C. R., R. L. Higgins, and R. J. Stuckey. 1983. *Excuses: Masquerades in search of grace*. Eliot Werner Publications.
- Sorrentino, Richard M., and Jack Hardy. 1974. Religiousness and derogation of an innocent victim. *Journal of Personality* 42:372-82.
- Sosis, R. H. 1974. Internal-external control and the perception of responsibility of another for an accident. *Journal of Personality and Social Psychology* 30: 393-99.
- 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. 2018. *Things that bother me: Death, freedom, the self, etc.* New York: New York Review Book.
- Stillman, T. F., and R. F. Baumeister. 2010. Guilt, free, and wise: Belief in free will facilitates Learning from self-conscious emotions. *Journal of Experimental Social Psychology* 46: 951-60.
- Stillman, T. F., R. F. Baumeister, K. D. Vohs, N. M. Lambert, F. D. Fincham, and L. E. Brewer. 2010. Personal philosophy and personnel achievement: Belief in free will predicts better job performance. *Social Psychological and Personal Science* 1 (1): 43-50.
- Tonry, M. 2004. *Thinking about crime: Sense and sensibility in American penal culture*. New York: Oxford University Press.
- 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.
- 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.
- Weiner, B. 1993. On sin and sickness: A theory of perceived responsibility and social motivation. *American Psychologist* 48:957-65.
- 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.
- Zwaan, R. 2013. The value of believing in free will: a replication attempt. March 18, 2013. Retrieved from: <https://rolfzwaan.blogspot.com/2013/03/the-value-of-believing-in-free-will.html>