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THE STORY OF MORAL CHARACTER: MORALITY, NARRATIVE, AND THE VALUE OF STRIVING

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DEPARTMENT OF PSYCHOLOGY

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For my parents, Marshall and Katie Black, who have waited a long time for me to finish my never-ending “education.”

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Table of Contents

Acknowledgements iv

List of Tables xiii

List of Figures xiv

Abstract xv

Introduction 1

Moral Character Judgment 3

Morality and Individual Differences 6

Moral Character Judgment, Narrative, and Imagination 11

Contribution to the literature 13

Research Questions and Hypotheses 14

Study 1 14

Study 2 15

Study 3 21

Pilot Studies 23

Study 1 25

Method 25

Participants 25

Procedure 27

Materials 28

Demographics 28

Vignettes 28

Data Analyses 29

Power analyses 29
Stopping rule 29
Data exclusion 29
Analyses 30
Results. 30
Preliminary Analyses 30
Gender 31
Primary Analyses 31
Good outcomes. 31
Bad outcomes 35
Post Hoc Analyses 35
Discussion 37
Study 2 44
Participants and Procedure 45
Instrumentation 45
Moral Foundations Questionnaire 45
Big Five Inventory 47
Moral Identity Questionnaire 47
Moral Agency Scale 47
Machiavellianism 47
Need for Cognition 48
Multiple Stimulus Types Ambiguity Tolerance 48
Imaginative resistance 49

Data Analyses 49
Results… 50
Preliminary Analyses 50
Primary Analyses 51
Personality 51
Moral Foundations Questionnaire 53
Integrity and Moral Self 56
Post Hoc Analyses 60
Discussion 60
Personality 62
Moral Foundations Theory 64
Other moral constructs 65
Need for Cognition and Ambiguity Tolerance 66
Study 3 67
Method 68
Instrumentation 68
Fiction exposure 68
Nonfiction exposure 69
Data Analyses 71
Results. 71
Preliminary Analyses 71
Primary Analyses 72
Hypotheses 72

Research questions 72
Discussion..... 76
General Discussion..... 78
Limitations and Future Directions..... 83
Future directions..... 87
Conclusions 88
References 90
Appendix A: Vignettes..... 109
Sample. 109
Unconflicted helping: 109
Conflicted helping: 109
Care/Harm 110
Care Vignette A: Emotional Support 110
Unconflicted Care:..... 110
Conflicted Care:..... 110
Unconflicted Harm: 111
Conflicted Harm: 111
Care Vignette B: Not teasing..... 111
Unconflicted Care:..... 111
Conflicted Care:..... 112
Unconflicted Harm: 112
Conflicted Harm: 113
Fairness/cheating 113

Fairness Vignette A: Debate team 113
Unconflicted Fairness: 113
Conflicted Fairness: 113
Unconflicted cheating: 114
Conflicted cheating: 114
Fairness Vignette B: Lemonade 115
Unconflicted Fairness: 115
Conflicted Fairness: 115
Unconflicted cheating: 116
Conflicted cheating: 116
Loyalty/betrayal 117
Loyalty Vignette A: Family Business 117
Conflicted Loyalty: 117
Unconflicted Loyalty 117
Conflicted Betrayal: 118
Unconflicted Betrayal: 118
Loyalty Vignette B: Sports team 119
Conflicted Loyalty: 119
Unconflicted Loyalty 119
Conflicted Betrayal: 119
Unconflicted Betrayal: 120
Authority/subversion 120
Authority Vignette A: Red Light 120

Unconflicted Authority: 120
Conflicted Authority: 121
Unconflicted Subversion: 121
Conflicted Subversion: 121
Authority Vignette B: Cutting in Line 122
Unconflicted Authority: 122
Conflicted Authority: 122
Unconflicted Subversion: 123
Conflicted Subversion: 123
Purity/degradation 123
Vignette A: Incest 123
Unconflicted Purity 123
Conflicted Purity: 124
Conflicted Degradation: 124
Unconflicted Degradation 125
Vignette B: Cannibalism 125
Unconflicted Purity: 125
Conflicted Purity: 126
Conflicted degradation: 126
Unconflicted degradation: 127
Appendix B: Instrumentation 128
Big Five Inventory 130
Moral Identity Questionnaire 131

Moral self: 131

Integrity: 131

Moral Agency Scale 132

Machiavellian Personality Scale..... 133

Imaginative resistance Scale..... 133

Multiple Stimulus Types Ambiguity Tolerance 134

Need for Cognition Scale 134

Nonfiction..... 138

Self-Help..... 138

Appendix C..... 139

Pilot Study 139

Appendix D 141

List of Tables

Table 1 24

Table 2 26

Table 3 32

Table 4 38

Table 5 46

Table 6 52

Table 7 54

Table 8 55

Table 9 57

Table 10 59

Table 11 61

Table 12 70

Table 13 73

Table 14 74

List of Figures

Figure 1. Good outcome scenarios.. 34

Figure 2. Bad outcome scenarios..... 36

Abstract

The purpose of this investigation was to expand on the limited extant research exploring what people take into consideration when they judge the moral character of others. Specifically, I examined the preference for moral conflict or striving (vs. lack of temptation) across the domains of morality outlined in Haidt's (2007) Moral Foundations Theory (Graham et al., 2011), and investigated how moral character judgment relates to individual differences in morality and relevant constructs, as well as lifetime exposure to literature. Results suggest that, at least for these domains of moral behavior, people tend to judge targets who are not tempted to act immorally more moral than those who are tempted, but behaved in a moral manner anyway. However, there were significant differences in response between individual domains. The vast majority of participants found people who did not have to strive to do the right thing more moral in the domains of fairness and care, whereas far more participants found striving to overcome temptation more moral in the domains of authority, loyalty, and purity. In general, higher scores on measures that assess morally relevant constructs were associated with preferences for lack of temptation; increased exposure to both fiction and nonfiction tended to be associated with preferences for striving to overcome internal conflict. Results are discussed with reference to prior research, study limitations, and future directions for the investigation of moral character judgment.

Introduction

Much research has investigated how people make moral decisions. Hypothesized models take into account moral responsibility and blame based on a wide variety of factors, including causal and/or intentional frameworks (e.g., Cushman, 2008; Guglielmo, Monroe, & Malle, 2009; Shaver, 1985), moral intuitions or automatic processes (e.g., Haidt, 2001; Sunstein, 2005), deliberate cognitive processing (Koenigs et al., 2007; Kohlberg, 1971), emotion (e.g., Borg, Hynes, Van Horn, Grafton, & Sinnott-Armstrong, 2006; Greene, Nystrom, Engell, Darley, & Cohen, 2004; Valdesolo and Desteno, 2006), relevant moral domains (Graham et al., 2011; Haidt, 2007; Haidt & Graham, 2007; Haidt & Joseph, 2007), cognitive biases (e.g., Knobe, 2003, 2004; Lin, Zlatev, & Miller, 2016) or a combination of distinct processes (e.g., Cushman, Young, & Hauser, 2006; Greene, 2009, Lapsley & Hill, 2008; Wallach, Franklin, & Allen, 2010). The focus of research in moral psychology has largely been people's perception or judgment of *negative* acts, usually those involving harm to other people (Guglielmo, 2015). Participants are often asked whether a given morally relevant act is appropriate or permissible (e.g., Cushman et al., 2006; Greene et al., 2009; Shtulman & Tong, 2013), or whether someone was deserving of blame as a result of a morally relevant act (e.g., Black, 2016; Malle, Guglielmo, & Monroe, 2012; Pizarro & Tannenbaum, 2012). Efforts to explain moral judgment have thus focused primarily on the *act* (usually a moral violation) rather than on the moral character of the actor (but see Starmans & Bloom, 2016; Uhlmann, Pizarro, & Diermeier, 2015). As such, although there have been many investigations of how people judge immoral acts, much less has been done

to explore how people judge the moral character of others, particularly when it comes to praiseworthy action.

The purpose of this investigation was to expand on the limited extant research exploring what people take into consideration when they judge the moral character of others. First, I extended the work of Starmans and Bloom (2016), who examined children's and adults' preference for child actors who either overcome temptation or are never tempted at all, by focusing on adult actors across a wider variety of scenarios. Thus, the current studies examined the extent to which adult participants value striving, or the conscious effort to do the right thing, in others: are people who have to overcome temptation considered more moral than people who do not struggle to do the right thing? When it comes to bad outcomes, it seems clear that someone who tries hard *not* to fall into temptation, but fails, will be seen as less "bad" than someone who does not hesitate to commit the immoral action, but when it comes to positive outcomes, predictions are more difficult. Who is considered a better person: one who is tempted to do the wrong thing, but overcomes that temptation, or someone who was never tempted at all? After examining participants' reactions to these types of scenarios across several moral domains, I explored whether individual differences in relevant traits relate to preferences for moral conflict. Specifically, I tested whether preferences for moral striving can be predicted by personality and morally relevant constructs, including need for closure, imaginative resistance to moral deviance in narrative, and ambiguity tolerance. Finally, I investigated the relationship between exposure to fiction and moral character judgment. Not only has it been suggested that fiction can and should cultivate moral sensitivity (Nussbaum, 1985), but preferences for certain genres of fiction may be

related to tolerance for moral ambiguity (see Black, Capps, & Barnes, 2017; Djikic, Oatley, & Moldoveanu, 2013). Imaginative engagement with fiction could both reflect and influence the way in which people judge character in the real world.

Taken as a whole, this work makes an important contribution to what we know about moral psychology and, in particular, moral character judgment, individual differences in morality, and the relationship between morality, imagination, and narrative.

Moral Character Judgment

Moral character development has been a perennial consideration for educational and developmental psychology (e.g., Kohlberg, 1971, Lapsley & Yeager, 2012), but most research in psychology has focused on how people judge moral acts rather than moral character (Uhlmann et al., 2015). Participants are asked to judge whether a person (typically, the protagonist of a vignette, e.g. Young & Saxe, 2009) should be held morally responsible or blameworthy based on a single morally relevant action, usually with negative outcomes (Guglielmo, 2015). This focus on the act distracts from the importance of the moral character of the actor; not only do people judge moral character based on concrete acts, they also allow prior beliefs about character influence their interactions with others (Delgado, Frank, & Phelps, 2005). Importantly, judgments of an act may be dissociated with judgments of character (Giner-Sorolla & Chapman, 2017; Tannenbaum, Uhlmann, & Diermeier, 2011); victimless moral violations, such as disgust-provoking actions that violate moral purity concerns, may be seen as wrong precisely because they provide information about moral character (Uhlmann & Zhu, 2014). Uhlmann and colleagues (2012; see also Goodwin, Piazza, &

Rozin, 2014) argue that the motivation to evaluate moral character, largely ignored in research, lies behind diverse results reported in the moral psychology literature.

Although research on moral behavior is usually placed within the philosophical frameworks of deontology (duty-based ethics; e.g., Kohlberg's (1971) Stages of Moral Development) and/or consequentialism (maximizing good outcomes; e.g., Greene, 2009), people tend to be virtue theorists (focusing on virtue rather than rules or consequences) when it comes to predicting others' behavior. Attribution theories (e.g., Jones & Davis, 1965; Kelley, 1973) address this in more general terms: when navigating social environments, we want to know *why* people do things. Did they choose a given action because they were forced by circumstance, or because they wholeheartedly, in possession of the facts, intended to do so? Perhaps more important when it comes to interpreting morally relevant actions, we want to know if they reflect more generally the actor's traits or disposition. Unfortunately, behavioral attributions are rarely made without a biased frame of reference (Weiner, 1995), and to the extent it is possible to arrive at an unbiased attribution, the assumption that an act is the result of internal processes provides insufficient information about the agent's intentionality (Malle, 2011). We do not only wish to know whether a person *intended* to do something, we want to have some idea of that person's mental state, including beliefs, desires, awareness, and reasoning. When it comes to moral acts, we seek out information about people's trustworthiness, warmth, history of moral behavior, and desire to do the right thing (Hoffman, Yoeli, & Nowak, 2015; Krull, Seger, & Silvera, 2008; Pizarro & Tannenbaum, 2012; Uhlmann et al., 2015). In short, we constantly assess moral character.

Moral character has traditionally been considered the province of virtue ethics, according to which moral virtue depends not only on the quality of an act, but on the way in which it is carried out: "The agent also must be in a certain condition when he does them; in the first place he must have knowledge, secondly he must choose the acts, and choose them for their own sakes, and thirdly his action must proceed from a firm and unchangeable character" (Aristotle, NE, Ross trans). How we determine the quality of choice and firmness character of others, whose mental life may be unobservable, is not quite clear, especially when it comes to an initial character assessment based on limited information. Previous research has assumed that people use decision-making time as a proxy for moral certainty (e.g., Critcher, Inbar, & Pizarro, 2012; Tetlock, Kristel, Elson, Green, & Lerner, 2000), or simply informed participants of the willingness to act prosocially (Krull et al., 2008) and then asked them to rate the actors. Although the evidence is somewhat conflicting (*cf.* Critcher et al. and Tetlock et al.), people do appear to take into account deliberation.

Recently, researchers in psychology have shed light on how children and adults judge moral character, based on descriptions of the way protagonists of short stories arrive at decisions. Starmans and Bloom (2016) presented children (ages five to eight) and adults with vignettes describing two individuals: one who was tempted to do the wrong thing, but ultimately acted morally, and one who acted morally without ever facing temptation at all. The researchers then asked participants which of the two individuals was more moral. The children overwhelmingly thought that the unconflicted individuals, who did not have to struggle to do the right thing, were "more good." Adults, on the other hand, believed conflicted protagonists, who had to strive to

do good, to be more moral. Adults, Starmans and Bloom concluded, valued moral striving and effort (making them more Kantian than Aristotelian). However, previous research that manipulated the time taken to make a morally relevant decision revealed conflicting results: in some cases, participants found the fast decision-maker more moral (Critcher et al., 2012), whereas in others, participants viewed people who deliberated longer more moral (Tetlock et al., 2000). In all such cases, it appears that people look for hints about the mental activities of actors in their actions, such as deliberation time, or, in the case of vignettes, in descriptions of their feelings. Importantly, even when Starmans and Bloom (2016) found the clearest preference for moral striving in adults (good outcomes), many participants (31%) found the unconflicted character more moral, suggesting a role for individual differences in how people approach character judgment.

Morality and Individual Differences

There is ample evidence of individual differences in moral constructs such as empathy (Davis, 1980), moral identity (Aquino & Reed, 2002; Black & Reynolds, 2016; Hardy & Carlo, 2011), integrity (Schlenker, 2008), moral responsibility (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Schwartz, 1968), moral agency (Black, 2016), Machiavellianism (Dahling, Whitaker, & Levy, 2009), and moral sensitivity ("chronicity," or attentiveness to morally salient features; Narvaez, Lapsley, Hagele, & Lasky, 2006). People also vary widely in their sensitivity to disgust in response to immoral behavior (Giner-Sorolla & Chapman, 2017) as well as purity violations (Haidt, McCauley, & Rozin, 1994). The sensitivity to moral purity concerns is one part of Moral Foundations Theory (MFT; Haidt, 2007; Haidt & Graham, 2007;

Haidt & Joseph, 2007), which allows for individual differences in the extent to which people value different moral domains within a larger model of sociopolitical morality. According to MFT, moral judgments are a reflection of five basic values or moral domains: Care/Harm, Fairness/Cheating, Loyalty/Betrayal, Authority/Subversion, and Purity (sanctity)/Degradation. The Moral Foundations Questionnaire (MFQ; Graham et al., 2011) measures the relative value people place on each moral domain when making moral decisions.

Scores on the different subscales of the MFQ have been related to political orientation numerous times (e.g., Graham, Haidt, & Nosek, 2009), with the so-called individualizing foundations of Care and Fairness (both of which emphasize the important of respecting the rights and needs of individuals and the avoiding harmful acts) given more relative value by liberals, and the binding foundations of Loyalty, Authority, and Sanctity (all related to the importance of protecting the community) valued primarily by conservatives (Graham et al., 2009). Additionally, there is some evidence that moral domain affects moral judgment. For example, Young and Tsoi (2015) found that whereas people take mental states (e.g., intentionality) into account when evaluating harm violations, they are much less likely to do so when evaluating purity violations. Similarly, Cohen, Panter, Turan, Morse, and Kim (2014) found that although the individualizing foundations of Care and Fairness were related to workplace behavior, the binding foundations of Authority, Loyalty, and Sanctity were not. On the other hand, Parkinson and Byrne (2017) found that when assessing culpability for different moral violations, whether the act was intentional or accidental harm and whether it affected the self or another person mattered, but the moral domain did not.

Giner-Sorolla and Chapman (2017) provide evidence that moral character is judged somewhat independently of the act, and speculate that purity/sanctity violations are condemned precisely because of the character information they provide (see also Pizarro, Tannenbaum, & Uhlmann, 2012).

Frimer, Biesanz, Walker, and MacKinlay (2013), in an investigation of ideological differences in identification and appreciation of exemplary individuals, explored the extent to which a series of influential people (from *Time* magazine's list) embodied characteristics from and promoted the values of the five MFT domains. The goal was to identify which foundations were important indicators of moral worth, and which explained differences in moral character judgment between liberals and conservatives. Ratings from experts (academics—social sciences) and general population suggested that people on both sides of the political spectrum value care, fairness, and purity when making moral character judgments. Neither liberals nor conservatives seemed to consider loyalty a virtue, and authority was the only divisive foundation: conservatives valued it whereas liberals considered it a vice. Frimer and colleagues relied on ratings of previously identified exemplars to assess the importance of the five moral foundations rather than asking participants to judge moral character, but their results suggest that behavior specific to the separate domains may influence judgment.

Although there is limited research on the relationship amongst individual differences in other moral constructs and character judgment, various studies provide evidence of their association with morally relevant behavior. Reported volunteering relates to higher scores in moral identity (Aquino & Reed, 2002; Black & Reynolds,

2016) and moral agency (Black, 2016). Stronger moral identity has also been (negatively) associated with counterproductive workplace behaviors, as has empathy, personality, and (positively) Machiavellianism (Cohen et al., 2014; Dahling et al., 2009). Other research suggests that when it comes to personality, agreeableness and neuroticism are the best predictors of moral behavior (Habashi, Graziano, & Hoover, 2016), however, conscientiousness may also have moderately strong correlations with self-reported morality (Black & Barnes, in preparation), and both openness and neuroticism weaker, but significant correlations with judgments of moral permissibility (Black & Barnes, in preparation). Moral permissibility was assessed with an adaptation of Shtulman and Tong's (2013) Moral Judgment Task, a list of potential moral violations (primarily purity-related) that participants must categorize as "ever morally permissible" or not: Shtulman and Tong reported a moderate negative correlation with disgust sensitivity, which was replicated by Black et al. (2017). Black and colleagues reported a stronger correlation with moral purity concerns (as measured by the MFQ Sanctity subscale); moral permissibility judgments were also related to exposure to fiction.

Recent research on imaginative resistance, or the perceived reluctance to engage with morally deviant fictional worlds, has highlighted the connection between fiction and moral imagination (Black & Barnes, 2017). Imaginative resistance—an inability or unwillingness to imagine certain things—had been discussed in the philosophical literature for the last few decades, with some philosophers arguing that it occurs primarily in response to moral violations (Gendler, 2000) and others that it occurs more generally, for example in response to aesthetics, humor, or violation of logical

reasoning (e.g., Weatherson, 2004; Yablo, 2009). Yet others hold that there are no true cases of resistance; rather, it results from poor writing or lack of context (Stock, 2005; Todd, 2009). Empirical research has provided evidence of individual differences in imagination resistance (Barnes & Black, 2016; Black & Barnes, 2017; Liao, Strohminger & Sripada, 2014). Context does matter (Barnes & Black, in preparation; Liao et al., 2014), but some people may just have better imaginations than others (see Barnes & Black, 2016).

Black and Barnes (2017) theorized that imaginative resistance may arise primarily due to fear of moral contagion: scores on their Imaginative Resistance Scale (IRS) were strongly and positively associated with greater disgust sensitivity and higher scores on the MFQ Purity subscale. Such fear of moral contagion could make readers avoid empathizing with characters who hold contrary moral views (de Sousa, 2009), especially in light of research outlining the importance of reader identification with characters (e.g., Appel & Mara, 2013; Dal Cin, Zanna, & Fong, 2004). There is reason to believe that people judge fictional characters similarly to real-life people, especially when it comes to morally relevant actions: it has been argued that people use the same set of moral values when evaluating imaginary and real-life situations (Bartel, 2015; Weinberg & Meskin, 2006), that imaginative resistance may in part reflect the fear of exporting immoral beliefs into the real world (Gendler, 2006; Murray, 2001), and that fiction provides a moral training ground in which readers (and viewers) simulate social interactions and acquire sensitivity to morally salient aspects of the environment (Currie, 1995; Mar & Oatley, 2008; Nussbaum, 1985). Thus, although imaginative resistance was conceptualized with reference to fiction, its strong association with moral

purity concerns and the fact that imagination is a necessary component of moral reasoning (Byrne, 2007, 2016; Moberg & Seabright, 2000) suggest that it may come into play when people are asked to make moral character judgments in the real world.

Moral Character Judgment, Narrative, and Imagination

More evidence for the involvement of imagination with moral judgment comes from research on fiction. The fact that imaginative resistance discourages people from engaging with fictions that challenge their real-world moral beliefs may serve a protective function, as exposure to various fictional worlds not only seems to correlate with individual differences in moral constructs, but also may affect real-world judgment and behavior. Exposure to fiction has been associated with different aspects of empathy (Bal & Veltkamp, 2013; Black & Barnes, in preparation; Kidd & Castano, 2016), as well as theory of mind (Black & Barnes, 2015; Kidd & Castano, 2013; Mar et al., 2006; Panero et al., 2016, 2017) and prosocial behavior (Johnson, Cushman, Borden, & McCune, 2013).

Black et al. (2017) reported that moral permissibility judgments were related to familiarity with four genres of fiction: greater familiarity with contemporary literary, fantasy, and science fiction was associated with more scenarios deemed permissible, whereas greater familiarity with romance mean *fewer* scenarios judged permissible. The negative association with romance exposure may reflect just world beliefs—that people's actions will inevitably have morally consonant consequences, such that evil is punished and goodness rewarded—that drive a preference for the happy endings and unambiguous characters prevalent in romance novels (Appel, 2008; D'Alessio & Allen, 2007). Conversely, the positive relationship with contemporary literary, science fiction,

and fantasy exposure makes sense not only because of the imaginative engagement with fictions that push moral and physical boundaries, but also in light of the frequency of morally ambiguous situations and characters in these genres (Black et al., 2017). The relationship of fiction and moral permissibility judgment has been confirmed in a sample of college undergraduates in a study that tested the relationship of fiction and nonfiction exposure with morality (empathy, moral identity, and moral agency; Black & Barnes, in preparation). Interestingly, the strongest predictor of moral judgment, controlling for gender and personality, was familiarity with *nonfiction* authors, suggesting that narrative in general might relate to moral reasoning.

Narrative nonfiction may be similar to real-world judgment in that, although situations are fact-based, both readers and real-world decision-makers must use their imaginations in order to put themselves in the place of others, whether they be the subjects of novels (Currie, 1995), memoirs, biographies, or historical treatises or the living, real people encountered at work (Moberg & Seabright, 2000; Whitaker & Godwin, 2013), or in psychological experiments. Good narrative nonfiction presents the moral conflict and doubt that real people must navigate; expository nonfiction, such as history and philosophy, may also encourage the reader to dwell on moral judgment. The nonfiction authors used to test the relationship of moral permissibility judgment and nonfiction exposure included philosophers, historians, and scientists; it could be that reading such works encourages better imagination for occasions when behavior normally considered deviant might be acceptable. Alternatively, people who read a lot of one type of book tend to read a lot in general, so it could be that those who are exposed to nonfiction authors also read a lot of fiction.

Clearly, both fiction and nonfiction narrative demand imaginative engagement on the part of the reader. To the extent that such engagement serves as practice or simulation for real world social interactions and moral judgment (e.g., Mar & Oatley, 2008), different types of narratives, with the distinct characteristics that determine their genre, may be related to real-life moral judgment. People choose their reading material because they like it; thus, the enjoyment of novelty and tolerance for moral ambiguity may, for example, encourage readers to choose science fiction, which may in turn foster an even greater preference for stories that push moral and physical boundaries (Black et al., 2017; Djikic et al., 2013). As such, familiarity with different genres may relate to moral character judgment in different domains.

Contribution to the literature

The purpose of this research was threefold. First, I tested whether attitudes towards moral striving varied across the five moral domains described by Haidt's Moral Foundations Theory (MFT; Graham & Haidt, 2007; Graham at al., 2011; Haidt & Joseph, 2004). As such, participants were asked to identify the more moral protagonist, with both good and bad outcomes, in scenarios written for adults that feature moral behavior specific to the five domains. Second, I investigated whether these moral character judgments would depend on individual differences in personality and constructs such as moral identity, ambiguity tolerance, and moral agency. Finally, I explored the relationship between moral character judgment and lifetime exposure to both nonfiction and fiction across a wide variety of genres. As such, this investigation addressed three understudied areas of moral psychology: moral character judgment,

positive moral behavior, and the relationship between imaginative engagement with narrative and moral judgment.

Research Questions and Hypotheses

Study 1. Study 1 tested for potential variation of the preference for moral conflict or striving found by Starmans and Bloom (2016)—which focused on vignettes about children who were tempted to lie or break promises—across the five moral domains described by Haidt's Moral Foundations Theory (Graham & Haidt, 2007; Haidt & Joseph, 2007). Differences in preferences for moral conflict in scenarios where the protagonists made the moral choice (good outcomes) as well as the immoral choice (bad outcomes) were explored. All vignettes featured moral behavior specific to each of the five domains of Care/Harm, Fairness/Cheating, Loyalty/Betrayal, Respect for Authority/Subversion, and Purity/Degradation[1], and matched across outcomes (good or bad) and condition (conflicted or unconflicted). For each domain, two sets of vignettes were written, with protagonists that are either conflicted or not, and make the moral or immoral choice, such that participants were randomly presented with the conflicted and the unconflicted character and asked which is most moral. Two pilot studies were used to test and perfect the vignettes.

If preferences for conflicted vs. unconflicted characters depend on the relevant moral domain, then participant choice of the most moral protagonist (conflicted vs. unconflicted) would change across the domain. If preferences do not depend on the moral domain, then participants would find the conflicted (or unconflicted) character

[1] Henceforth, the domains will be referred to by their positive aspect: Care, Fairness, Authority, Loyalty, and Purity.

most moral (less immoral) across the domains when it comes to both good and bad outcomes (Starmans & Bloom, 2016).

Hypotheses. For Good Outcomes, I predicted that preferences for moral striving would vary across the domains. Past research suggests that people's intentions matter less when it comes to certain moral domains, particularly purity concerns (Young & Tsoi, 2013). For the domains of Care and Fairness, I expected the results to be in line with those reported by Starmans and Bloom (2016): participants would tend to prefer the conflicted character (Hypothesis 1a). For the binding domains of Loyalty, Authority, and Sanctity, I predicted outcomes different from those reported by Starmans and Bloom (whose vignettes only included behavior relevant to the Care domain): participants would prefer the unconflicted character (Hypothesis 1b). When it comes to Loyalty or Authority, even *contemplating* disobedience may be considered disrespectful; similarly, impure thoughts may be equated with immoral contamination and sin (Bastian et al., 2015) and can cause people to feel contaminated in the absence of physical experience (Herba & Rachman, 2007). As such, merely being tempted to violate the foundations of authority or sanctity may represent a moral contamination that offsets the preference for moral striving. For Bad Outcomes, I expected results to be consistent with past research (Starmans & Bloom, 2016): participants would find the conflicted character—that is, the person who tries to fight temptation, but ultimately loses—more moral than an actor who does not even attempt to resist across domains.

Study 2. Study 2 investigated whether moral character judgments were related to individual differences in personality, moral constructs such as the five moral foundations comprising MFT, moral self, integrity, moral agency, Machiavellianism,

and potentially relevant traits such as ambiguity tolerance, need for cognition, and imaginative resistance. In most cases, I had research questions rather than directional hypotheses, making this phase of the research primarily exploratory. Because the results of Study 1 and the pilot study showed that preferences for striving did not vary in direction across domains, the relationship of each of the following variables and the overall preference for striving (summed across domains) were tested.

Hypotheses. Unless otherwise noted, all the following hypotheses were made with respect to scenarios with good outcomes (i.e., the protagonist makes the moral choice).

Personality. Past research has shown some aspects of personality to be directly related to scores on different MFQ scales (Hirsh, DeYoung, Xu, & Peterson, 2010), as well as indirectly, through association with political orientation. For example, conservatives tend to exhibit a greater need for order, less willingness to accept novelty, and value the binding foundations of Loyalty, Authority, and Sanctity; all three binding foundations have been positively associated with conscientiousness, and Fairness and Care have been positively correlated with the Openness to Experience personality factor (Graham et al., 2011). Other factors may have more complex associations: one aspect of agreeableness (compassion) was related to Care and Justice, whereas another aspect (politeness) was related to Authority (Hirsh et al., 2010). It is unclear, however, if these factors would relate to domain-specific preferences for moral striving. It could be that personality traits influence a global preference for or against moral striving, or that the relationship between these traits and a preference for moral striving may vary based on the relationship between specific traits and specific domains of morality.

Although there were no directional or domain-specific hypotheses for the Big Five factors, there was reason to believe that most would be related to moral character judgment in some way. The personality factors of agreeableness and conscientiousness have been attributed to moral exemplars (Walker, 2010), and openness to experience, conscientiousness, and agreeableness ("moral personality") have been shown to relate to moral identity (McFerran, Aquino, & Duffy, 2010). Further research suggests that openness may related to moral judgment; not only was it related to moral permissibility judgment (Black et al., 2017), but it was also associated with preference for liberal ideology reflected in the MFQ (Graham et al., 2012). Conscientiousness may be related to both moral identity and moral agency (Black & Barnes, in preparation): it could be that people who are particularly conscientious place value on effort, in which case those who preferred the conflicted protagonist would have higher scores in conscientiousness. Alternatively, the reverse would be true if conscientious people believe that moral choices should be clear-cut, reflective of previously established moral clarity; similar alternatives existed for neuroticism, also related to morality in prior research (Black & Barnes, in preparation; Habashi, et al., 2016). The only personality factor that lacked evidence to suggest a relationship with moral judgment is extraversion; I did not expect it to be related to character preference in any domain.

Moral Foundations Theory. Although it was logical to assume that scores on the five moral foundations will be related to moral character judgment, it was difficult to tell *how* they will be related. People who scored high on the Fairness subscale might have preferred the conflicted protagonist, who weighs the good against the bad, when it comes to behavior relevant to the domain of Fairness only, or across all domains:

careful consideration of all options could matter just as much when it comes to the binding foundations of Authority, Loyalty, and Purity as it does when it comes to Fairness and Care. Past research offered conflicting evidence when it comes to the relationship of domain with moral behavior (*cf.* Frimer et al., 2013; Giner-Sorolla & Chapman, 2017; Cohen et al., 2014; Parkinson & Byrne, 2017); as such, all analyses for the MFQ subscales were exploratory.

Integrity. Integrity, or the desire for consistency between the judgment (what ought to be done) and act, is a vital part of moral character (Blasi, 1980; Lapsley & Yeager, 2012). To the extent that individuals value consistency of thought and action in others, those with greater integrity should find the unconflicted protagonists more moral, particularly when it comes to domains pertinent to integrity of action and thought. As such, greater self-reported integrity was expected to predict a preference for the unconflicted protagonist across domains.

Moral self. The sense of moral self refers to the importance morality is given within a person's self-concept (Black & Reynolds, 2016). People with a strong sense of moral self understand themselves and their actions in moral terms, and strive to avoid harm to others. Prior research showed that self-reported moral self scores are positively correlated with scores on four of the five MFQ subscales (all but Authority were statistically significant at $p < .01$; Black & Reynolds, 2016), suggesting that a strong self of moral self is related to moral values in general. As such, I expected higher scores on the Moral Self scale to be associated with a preference for the unconflicted protagonist across domains.

Moral Agency. Moral agency refers to the perception that one is in full control of actions that can affect the well-being of others (Black, 2016). People with a strong sense of moral agency feel that they are able to act according to their own perception of right and wrong. I expected perceived moral agency to be related to moral character judgments, but it was difficult to predict the direction of the relationship. For example, people with a strong sense of moral agency might believe that one can and should exercise agency only after careful deliberation, and coming to the right decision after temptation is a show of strength. In this case, moral agency scores would be higher for those who choose the conflicted protagonist. On the other hand, a strong sense of agency could lead people to believe that one has no reason to doubt when it comes to a decision between right and wrong, resulting in higher moral agency scores for those who prefer the unconflicted protagonist. As such, non-directional hypotheses of a difference between mean Moral Agency scores (conflicted vs. unconflicted) were made for scenarios where the protagonists make the moral choice. In bad outcome scenarios, participants who found the unconflicted protagonist more moral were expected to self-report less moral agency.

Machiavellianism. Machiavellianism refers to the willingness to manipulate and take advantage of others in order to further one's own ambitions and/or fulfill one's own desires (Dahling et al., 2009). People who exhibit Machiavellian traits are willing to act immorally and have a cynical view of human nature, and are more likely to exhibit counterproductive workplace behaviors (Cohen et al., 2014; Dahling et al., 2009). Accordingly, although Machiavellianism may not be related to preferences for moral striving when it comes to good outcomes, it should be a good predictor of

preferences for the *unconflicted* protagonist in scenarios with immoral outcomes. As such, I hypothesized that higher scores on the Machiavellianism scale would be associated with preferences for the unconflicted protagonist across domains.

Ambiguity tolerance. Tolerance for ambiguity refers to reactions to stimuli and/or situations that are "complex, dynamically uncertain, or subject to multiple conflicting interpretations" (McLain, 1993). Individuals with greater tolerance for ambiguity feel more at ease when faced with such situations. Because the conflicted protagonists consider the temptation to do otherwise, their desires are both complex and ambiguous. It was reasonable to assume that participants with greater ambiguity tolerance would be better disposed towards the protagonists who must strive to do the right thing; I therefore predicted that participants who found the conflicted protagonist more moral would have more tolerance for ambiguity.

Need for cognition. Need for cognition refers to the preference for and tendency to enjoy cognitive challenges (Cacioppo & Petty, 1982; Cacioppo, Petty, Feinstein, & Jarvis, 1996). Individuals with greater need for cognition tend to prefer complex to simple tasks and are willing to expend the mental effort needed to organize and structure information and engage in problem solving. Moreover, recent research suggests that need for cognition may contribute to morally relevant behavior: Strobel, Grass, Pohlin, and Strobel (2017) found that need for cognition predicted self-reported moral behavior over and above moral variables such as moral judgment, moral identity, and empathy. Given that those high in need for cognition enjoy thinking and reasoning about complex information and problem-solving, I predicted that those who prefer the conflicted protagonist will self-report greater need for cognition.

Imaginative resistance. Imaginative resistance refers to the reluctance some people experience when they are asked to engage with fictional worlds that feature deviant moral paradigms (Gendler, 2000). Individual differences in imaginative resistance have been associated with moral purity concerns and disgust sensitivity (Black & Barnes, 2017), and may reflect general imaginative ability (Barnes & Black, 2016). Five of the 13 IRS items refer to characters, and IRS scores are strongly and negatively correlated with preferences for morally ambiguous characters (r = -.51; unpublished research). If the inability or reluctance to imagine situations in which a good person would contemplate acting immorally is related to imaginative resistance, then participants who experienced greater resistance would prefer the unconflicted protagonist across domains.

Study 3. Study three explored the relationship between moral character judgment and lifetime exposure to narrative. Author checklists (*cf.* Acheson, Wells, & MacDonald, 2008; Black et al., 2017; Mar et al., 2006; Stanovich & West, 1989) were used to measure exposure to eight genres (classics, contemporary literary, fantasy, historical fiction, horror, mystery/thriller, romance, and science fiction), young adult fiction and nonfiction. Fiction in general tends to feature characters who struggle with difficult choices, and thus fiction exposure may be related to increased tolerance or preference for conflicted moral actors. Similarly, greater amounts of imaginative engagement with fiction may facilitate an ability to create backstories for the scenarios that could make the unconflicted protagonist appear more moral in cases with bad outcomes. However, different genres feature distinct characteristics (e.g., Carroll, 2015; Rieder, 2010; Selinger, 2013) that could affect preferences for moral striving. Prior

research suggests that genre preferences may be reflected in real world moral judgment (Black et al., 2017). For example, exposure to contemporary literary, fantasy, and science fiction was uniquely and positively associated with the tendency to find more morally deviant scenarios potentially permissible, whereas familiarity with romance meant *fewer* scenarios deemed permissible. The hypotheses below address expectations for specific genres and domains; the effects of exposure to different genres, YA fiction, narrative nonfiction and general nonfiction were also tested across moral domains.

Hypotheses. First, I predicted that greater familiarity with Romance and Mystery/Thriller authors would be associated with an increased tendency to prefer the unconflicted protagonist across domains. Past research suggests that these genres tend to be read by people who can imagine fewer exceptions to moral rules (Black et al., 2017). What is more, both romances and mysteries are written according to strict genre rules that ensure set plot characteristics. In mysteries, a detective, amateur or professional, follows a logical process of information gathering and causal inferences. Romances are written according to industry-determined plot structures. Both genres are defined according to their resolution (the bad guy is uncovered, love is found). Such adherence to rules may discourage a tolerance of moral ambiguity, such as that revealed in the thought processes of conflicted moral characters in the stimuli vignettes.

Second, I expected familiarity with contemporary literary, fantasy, and science fiction authors to be associated with preferences for the conflicted protagonist across domains. In contrast to mystery and romance, literary fiction tends to push the boundaries of societal mores (see Djikic & Oatley, 2014; van Lissa, Caracciolo, van Duren, & van Leuveren, 2016) and focus on the interior life of complex characters who

struggle to do the right thing (or fail to do so). Fantasy and science fiction not only involve stretching the limits of physical reality, they frequently describe worlds where real-world moral taboos are non-existent. As such, I expected familiarity with authors in these genres to relate to preference for the conflicted protagonists in all domains.

See Table 1 for all hypotheses.

Pilot Studies

To test the equivalence of the vignettes within domains, two pilot studies were run. Pilot Study 1, registered on Open Science Framework for the Pre-registration Challenge (osf.io/3krjd), tested preliminary versions of the vignettes and included the Moral Foundations Questionnaire (Graham et al., 2011). In this initial pilot study (N = 175, 71.4% female), participants had chosen the most moral protagonist from the two different vignettes (e.g., versions A and B for Purity). This resulted in significantly different responses across vignettes for all domains except Care. I therefore ran a second pilot study, matching conflicted vs. unconflicted in the same version of the vignettes (which were also revised). In Pilot Study 2 (N = 112, 57.1% female), there were no differences in proportions within domains ($0.16 \leq X^2 \leq 2.23$, $0.135 \leq p \leq .684$). I therefore proceeded to use the vignettes (Appendix A) from Pilot Study 2. (See Appendix C for results from Pilot Study 2).

Table 1

Hypotheses for Studies 1, 2, and 3.

Study 1	
	• For good outcomes, preferences for moral striving will vary across domains. • In the domains of Care and Fairness, participants will find the conflicted protagonist more moral • In the three binding domains, participants will find the unconflicted protagonist more moral • For bad outcomes, participants will find the conflicted protagonist more moral across domains.
Study 2	
Personality	• The personality factors of Openness, Conscientiousness, Agreeableness, and Neuroticism will be related to moral judgment (positive outcomes); nondirectional.
Moral Foundations	• Exploratory analyses.
Integrity	• Participants who prefer the unconflicted protagonist will have higher scores on the integrity scale (across domains)
Moral self	• Participants who prefer the unconflicted protagonist will have higher scores on the moral self scale (across domains)
Moral Agency	• Moral agency will be related to moral character judgment in all domains (positive outcomes; nondirectional). • In negative outcome scenarios, greater moral agency will be associated with preferences for the conflicted protagonists.
Machiavellianism	• In negative outcome scenarios, participants who prefer the unconflicted protagonist will score higher on the Machiavellian Personality Scale.
Ambiguity Tolerance	• Participants who prefer the conflicted protagonist will have greater tolerance for ambiguity (positive outcomes, across domains).
Need for cognition	• Participants who prefer the conflicted protagonist will have greater need for cognition (positive outcomes, across domains).
Imaginative resistance	• Higher scores on the Imaginative Resistance Scale will be associated with the preference for the unconflicted protagonists across domains (good outcomes)
Study 3	
Fiction exposure	• Greater familiarity with Mystery/Thriller and Romance authors will be related to preferences for the unconflicted protagonists across domains (positive outcomes). • Greater familiarity with contemporary literary, fantasy, and science fiction authors will be associated with preferences for the conflicted protagonist across domains. • For all other genres, YA fiction, and nonfiction all analyses will be exploratory

Study 1

Method

Participants

Two samples were tested: an undergraduate sample and a Web-based sample. In the undergraduate sample, 535 (76.6% female; 90.4% under 20; 96.4% under 21) cases completed Part 1; 472 cases completed parts 1 and 2 (all available good cases were used on an analysis-by-analysis basis). Of these, forty participants were discarded for survey response times of less than ten minutes, vignette response times of less than 45 seconds, excessive guessing on the Author Recognition tasks (3.0+ standard deviations above mean foils), or a combination of the above. Forty more cases were discarded for failing the manipulation checks for the positive outcome vignettes, leaving 441 good cases (77.6% female, 96.6% under 21; see Table 2 for ethnicity details). Of these, 401 participants completed the second part of the survey, which contained the bad outcome vignettes; 34 of these failed the manipulation checks, leaving 367 good cases (79.6% female). The undergraduate sample was majority conservative-leaning (63.2%) and primarily Christian (43.4% Protestant, 16.8% Catholic); see Table 2 for details.

In the Web sample, 238 people (67.6% women, mean age = 30.20) took part. Of these, 31 failed one or more manipulation checks and 21 were discarded for excessive guessing or low time, leaving 186 cases (68.8% female, mean age = 31.02). This sample leaned liberal (66.8%; see Table 2 for details).

Table 2

Demographic information for undergraduate and web samples.

	Undergraduate		**Web**	
	N	**%**	***N***	**%**
Ethnicity				
African American/Black	24	4.8	9	3.8
Asian	37	7.5	34	14.3
Hispanic	32	6.5	19	8.0
Native American	10	2.0	4	1.7
Pacific Islander	1	0.2	0	0
White (non-Hispanic)	348	70.3	156	65.5
Multiracial	37	7.5	6	2.5
Other	5	1.0	6	2.5
Missing			4	1.7
Political Orientation				
Very conservative	28	5.7	5	2.1
Conservative	124	25.1	30	12.6
Moderately conservative	161	32.5	43	18.1
Moderately liberal	109	22.0	57	23.9
Liberal	56	11.3	62	26.1
Very liberal	17	3.4	38	16.0
Missing			3	1.3
Religion				
Catholic	83	16.8		
Protestant	215	43.4		
Muslim	7	1.4		
Hindu	8	1.6		
Jewish	3	0.6		
Buddhist	1	0.2		
Religious but unaffiliated	35	7.1		
Agnostic	29	5.9		
Atheist	9	1.8		
None	20	4.0		
Other	30	6.1		
Missing	55	11.1		
Mother's education				
Less than high school	11	2.2		
High school diploma	41	8.3		
Some college	75	15.2		
Associate's degree or similar	41	8.3		
Bachelor's degree	182	36.8		
Some graduate work	9	1.8		
Graduate or professional degree	80	16.2		
Missing	56	11.3		

Note. Full sample: N = 495 for undergraduates (not all answered all questions); N = 238 for web.

Procedure

All data was collected via Qualtrics. College undergraduates participated through the departmental subject pool, completing a two-part survey in exchange for course credit. The first part contained the vignettes with good outcomes: first, all participants completed a vignette adapted from Starmans and Bloom (2016) that featured a helping scenario, about a child who is tempted not to help his sister (vs. one who is not tempted) but ends up helping. Participants were asked to judge which of the two children was more moral. Next, participants were presented with five pairs of vignettes representing the moral domains, in random order. Each pair included the conflicted and the unconflicted protagonists in matched vignettes, such that it was clear that the choice was between a person who had no hesitation in doing the right thing and one who had to overcome the temptation not to do so. For each domain, one of two possible vignettes was randomly selected for presentation (details below).

At the end of the first survey, participants were directed to a second survey instrument in Qualtrics, which collected email addresses and automatically distributed Part 2 after seven days. In Part 2, participants were presented with the bad outcome vignettes (beginning with an example from Starmans and Bloom), in the same manner described for Part 1.

In the Web sample, adults were recruited via postings on social networking sites such as Facebook and Reddit (43%), as well as on sites dedicated to psychological research, such as Social Psych Network and Psychological research on the Net (57%). All participants completed a Qualtrics survey that presented the good outcome vignettes as described above.

Materials

Demographics. Items addressing gender (*male, female, other/prefer not to answer*), political orientation, age, mother's education, and religious affiliation were included. Political orientation was assessed with a single 6-point item (*very conservative, conservative, moderately conservative, moderately liberal, liberal, very liberal*). Religious affiliation was assessed in a single multiple-choice item (*Catholic, Buddhist, Hindu, Jewish, Muslim, Protestant, Sikh, agnostic, atheist, other*). For the Web sample, only gender, ethnicity, and political orientation were included. See Appendix C for associations between demographics and variables of interest.

Vignettes. Five sets of vignettes (See Appendix A), one per moral foundation, were written to target the moral domain in question. Care was taken to avoid scenarios relevant to more than one domain (for example, respect for authority could not include family as the relevant authority, because loyalty is also at issue when it comes to family). All scenarios featured a protagonist with a gender-neutral name and did not use gender pronouns. For each domain, two base vignettes were created that were then adapted to feature conflicted or unconflicted protagonists making either the "moral" or "immoral" decision. As such, a total of eight separate vignettes were written for each domain (e.g. Care A conflicted, Care A unconflicted, Harm A conflicted, Harm A unconflicted; Care B conflicted, Care B unconflicted, Harm B conflicted, Harm B unconflicted). Participants were randomly assigned to A or B (conflicted vs. unconflicted) versions within each of the five domains; domains were also presented in random order. For each set of vignettes, participants were asked first (as a manipulation check) who of the two protagonists found it easy (e.g., "Who found it *easy* to do

something good, Pat or Skyler?") and who found it difficult ("Who found it *difficult* to do something good, Pat or Skyler?"). Finally, they were asked "Who is the most moral person?"

Data Analyses

Power analyses. Sample size estimates for the pilot study were based on Starmans and Bloom (2016). Starmans and Bloom reported a large effect size of g = .38 for adults in Study 1 (good outcomes). Power analyses for binomial sign test (using G*Power [Faul, Erdfelder, Buchner, & Lang, 2009]), with a small-medium effect size (g=.10), indicates the need for N = 199 to reach power = .80 (Cohen, 1988) for the test of a single domain. The larger sample, although potentially unnecessary if the effect sizes were similar to that reported in Starmans and Bloom, allowed for a smaller effect size in each individual domain comparison.

Stopping rule. Data collection was restricted to a single semester. Initial analyses had suggested collecting data from 425 undergraduates to ensure sufficient numbers of good cases; a large subject pool necessitated continued collection until the end of the fall semester. For adult participants from the web sample, data collection was stopped at the end of the semester.

Data exclusion. Participants who had spent less than ten minutes on the surveys as a whole, or less than 45 seconds per scenario, were discarded. Manipulation checks were included with each scenario (described below); data from participants who failed them was not included. For Study 3, participants who had a guessing score (number of foils or fake names chosen on the GFT or YAFT) greater than 3.0 standard deviations above the mean were discarded.

Analyses. Cochran's *Q* was used as an omnibus test for differences in responding across domains (cases that had failed a manipulation check in any domain were excluded). McNemar's test was used to test for differences between domains.

Results

Preliminary Analyses

First, I tested whether responses within domains varied across the two vignettes. In the undergraduate sample, for positive outcomes, there were no differences in response to the two scenarios within the Care, Fairness, Authority, and Loyalty domains (X^2 values ($df = 1$) ≤ 0.94, ps $\geq .332$, but within the Purity domain, participants were more likely to select the conflicted protagonist as the more moral individual in the first vignette (incest) than in Vignette B (cannibalism; X^2 ($df = 1$) = 4.24, $p = .040$). I therefore tested the two groups (vignette A vs. B) separately for each analysis reported below; when the results did not differ, I combined the groups and report the statistics for the entire sample (when they differ, I report results for each group). For bad outcomes, no significant differences in responses to vignettes within domains emerged, $0.02 \leq X^2$ ($df = 1$) ≤ 1.29; $0.256 \leq p \leq .889$.

In the Web sample, which only responded to good outcomes scenarios, there were no differences for Fairness, Authority, Loyalty, and Purity (X^2 values ($df = 1$) $\leq$ 0.64, ps $\geq .424$), but in the Care domain, participants were more likely to prefer the conflicted protagonist for vignette B (X^2 ($df = 1$) = 39.57, $p < .001$); because no one selected the conflicted protagonist in vignette A, I could not test the vignettes separately. Results are reported for the combined vignettes, with the caveat that future testing is needed.

Next, I tested for order effects within domains (positive outcomes). Order did not affect responses for any domain in the undergraduate sample for positive outcomes ($1.27 \leq X^2$ ($df = 4$) ≤ 7.64, $0.106 \leq p \leq .867$). Nor did responses vary with order of presentation for bad outcomes, ($1.20 \leq X^2$ ($df = 4$) ≤ 8.08, $0.089 \leq p \leq .878$). There were no order effects for the web sample either, X^2 values ($df = 4$) ≤ 3.28, ps $\geq .512$.

Gender. In the undergraduate sample, gender was not related to moral judgment in any domain for good outcomes (ps > .200), or in the domains of Care, Fairness, Authority, and Loyalty for bad outcomes (ps > .890). In the Purity domain, bad outcomes, women (93%) were more likely to find the conflicted protagonist more moral than men (84%) were, $X^2(df = 1) = 5.51$, $p = .019$. In the Web sample, gender was not related to moral judgment in the domains of Care, Fairness, Loyalty, or Purity (ps > .650), but in the Authority domain, women (43%) were much more likely to find the conflicted protagonist more moral than men (14%) were, $X^2(df = 1) = 12.93$, $p < .001$.

Primary Analyses

Good outcomes. The first hypothesis, that preferences for moral striving will vary across the domains, was supported. Although participants tended to find the unconflicted protagonist more moral across domains, there was significant variation in proportions as detailed below (see Table 3).

Undergraduate sample. For all domains, participants found the protagonist who was not tempted to do wrong more moral (observed proportions $\geq .83$, binomial tests ps < .001; see Table 3. However, there were differences in responding between domains,

Table 3

Proportions of participants who preferred the unconflicted vs. the conflicted protagonist in undergraduate and web samples.

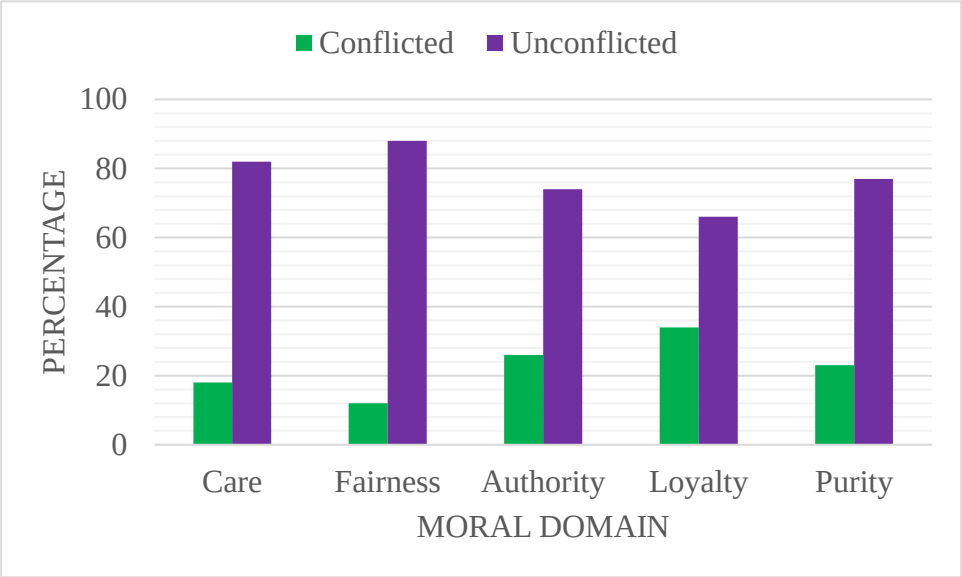
Domain	Unconflicted	Conflicted	Proportion unconflicted	*p*
Positive outcomes				
Undergraduate				
Care	361	80	.82	< .001
Fairness	386	55	.88	< .001
Authority	327	114	.74	< .001
Loyalty	293	148	.66	< .001
Purity	339	102	.77	< .001
Vignette A	160	60	.73	< .001
Vignette B	179	42	.81	< .001
Web				
Care	150	27	.85	< .001
Vignette A	92	0	1.0	< .001
Vignette B	58	27	.64	.001
Fairness	150	26	.85	< .001
Authority	114	63	.64	< .001
Loyalty	93	83	.53	.498
Purity	105	71	.60	.013
Negative Outcomes (undergraduate only)				
Harm	26	337	.07	< .001
Cheating	29	334	.08	< .001
Subversion	30	333	.08	< .001
Betrayal	64	299	.18	< .001
Degradation	39	323	.11	< .001

Note. Binomial tests used to compare proportions (null hypothesis = .50). Because responses across vignettes differed for Purity in the Undergraduate sample and Care in the Web sample, results are reported for each vignette separately.

Cochran's Q (df = 4) = 94.24, $p < .001$. Participants were *more* likely to find the conflicted protagonist more moral in the Loyalty than in the Care, Fairness, and Authority domains (ps $\leq .005$), and than the Purity domain overall ($p < .001$, but this was true for Vignette B [cannibalism] and not A [incest; $p = .523$]). Participants were also more likely to find the conflicted protagonist more moral in the authority domain than in the Care or Fairness domains (ps $\leq .001$); there was no difference in responses between the Authority and Purity domains ($p = .285$). Participants were more likely to find the conflicted protagonist more moral in the Purity than in the Fairness domain ($p < .001$). The relationship between responses for the Purity and Care domains depended on the Purity Vignette: There was no difference for Vignette B (cannibalism; $p > .999$), but those who read Vignette A (incest) were much more likely to find the conflicted protagonist more moral in the Purity than in the Care domain ($p = .001$). See Figure 1.

Web Sample. Preference for moral striving varied across domains, Cochran's Q (df = 4) = 93.28, $p < .001$. A series of McNemar's tests showed that there was no difference in responses between the Care and Fairness domains ($p > .999$), the Authority and Purity domains ($p = .321$), or Loyalty and Purity domains ($p = .134$). Participants were more likely to find the conflicted protagonist more moral in the three binding domains (Authority, Loyalty, and Purity) than in the individualizing domains of Care and Fairness (all pairwise tests, $p < .001$). They were also more likely to find the conflicted protagonist more moral in the Loyalty than in the Authority domain, $p = .010$. See Figure 1.

In the domains of Care and Fairness, participants were expected to prefer the conflicted character; as in the undergraduate sample, this was not supported. Not only



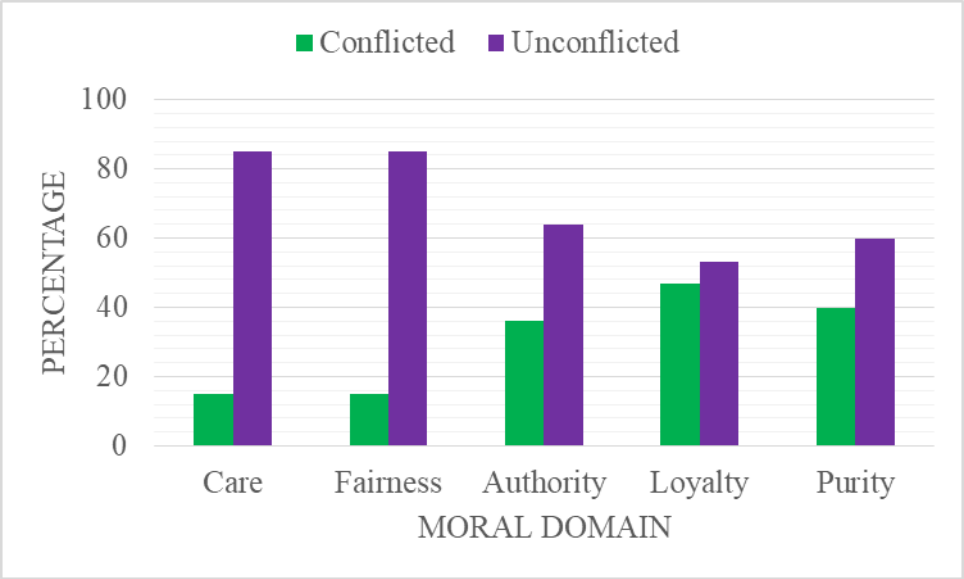


Figure 1. Good outcome scenarios. Percentage of participants identifying the conflicted vs. the unconflicted protagonists as more moral in each domain. Results from the undergraduate sample are presented in the top graph; results from the web sample are presented in the bottom graph.

did participants prefer the unconflicted protagonist, but the preference was stronger in these domains than in the other domains. In the binding domains of Loyalty, Authority, and Sanctity/Purity, participants were predicted to judge the unconflicted character more moral; this was partially supported. Participants in both samples were significantly more likely to select the unconflicted protagonist as the more moral individual in the domains of Authority and Purity, and this was true in the Loyalty domain in the undergraduate sample as well. In the Web sample, however, participants were equally likely to select the conflicted and unconflicted protagonists in the Loyalty domain.

Bad outcomes. Participants were predicted to find the conflicted character more moral than an actor who does not even attempt to resist across domains. This hypothesis was supported, although there were differences in responding. For all domains, participants found the protagonist who fought temptation before doing wrong more moral (observed proportions $\geq .82$, binomial tests ps $< .001$); however, there were differences in responding across domains, Cochran's Q ($df = 4$) $= 34.72$, $p < .001$. McNemar's test showed that participants were more likely to find the unconflicted protagonist more moral in the Loyalty vignettes than in any other (ps $\leq .006$). There were no other significant pairwise differences. See Figure 2.

Post Hoc Analyses

Because of the differences in political makeup and results across the two samples, *post hoc* analyses were run to test for differences in responding according to political orientation across domains. First, a dichotomous variable (conservative vs. liberal) was created from the 6-point political orientation item in both undergraduate

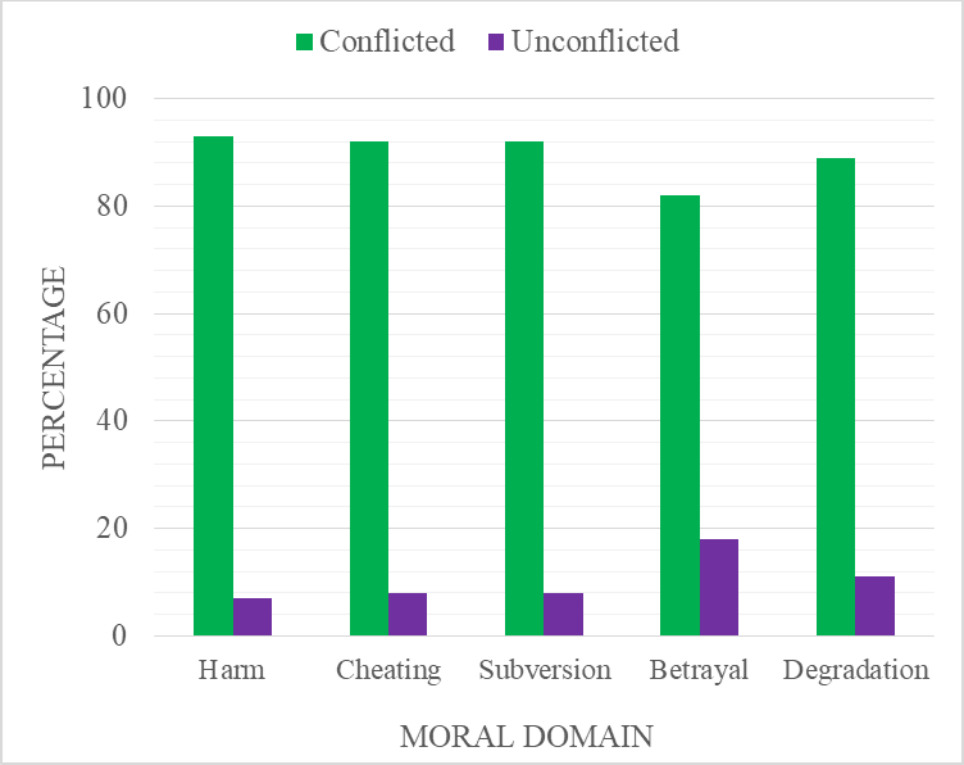


Figure 2. Bad outcome scenarios (undergraduate sample). Percentage of participants identifying the conflicted vs. the unconflicted protagonists as more moral in each domain are presented above.

and web samples. Next, separate chi square tests of independence were run for each domain. In the undergraduate sample, the proportion of conservatives who judged the unconflicted protagonist more moral tended to be greater than that of liberals across domains, but the differences were greater in the binding domains of Authority, Loyalty, and Purity. A very similar pattern of results was evident in the Web sample, with even less disparity in judgment between liberals and conservatives in the Care and Fairness domains. See Table 4 for details.

Next, the files were split to rerun the analyses testing for differences across and between domains separately for liberals and conservatives. Results suggested that, although conservatives and liberals tend to judge differently within domains, the overall pattern of moral judgment is the same for both. In both samples, responses varied across domains for both liberals and conservatives, Cochran's $Q \geq 11.34$, $p \leq .023$, although the test was not statistically significant at $p < .001$ for conservatives in the Web sample (see Table 4).

Discussion

Across the five moral domains proposed by Moral Foundations Theory (MFT; Haidt, 2007; Haidt & Graham, 2007; Haidt & Joseph, 2007) and targeted here, participants tended to judge lack of temptation more moral than striving. These results stand in direct contrast to earlier work by Starmans and Bloom (2016), who reported that adults, in contrast to young children, judged conflicted actors more moral than unconflicted ones. Notably, although overall participants were much more likely to find individuals who were effortlessly good to be more moral than those who overcame the temptation to do the wrong thing, there were significant differences between domains in

Table 4

Differences in moral judgment for conservatives vs. liberals for good outcome vignettes, undergraduate and Web samples. Cochran's Q and corresponding p-*values for comparisons across domains for conservatives and liberals presented below corresponding proportions.*

	Proportion unconflicted			
	Conservative	**Liberal**	X^2	$p_{\text{two-tailed}}$
Undergraduate				
Care	.85	.77	3.81	.051
Fairness	.90	.84	3.00	.083
Authority	.80	.72	3.99	.046
Loyalty	.71	.59	5.92	.015
Purity	.79	.67	7.48	.006
Cochran's *Q*	50.16	44.99		
p	< .001	< .001		
Web				
Care	.87	.84	0.27	.606
Fairness	.87	.84	0.16	.686
Authority	.76	.59	4.19	.041
Loyalty	.70	.46	8.48	.004
Purity	.70	.56	3.05	.081
Cochran's *Q*	11.34	82.96		
p	.023	< .001		

Note. Chi square tests of independence used. No significant differences were found for bad outcomes ($.201 \leq p \leq .787$).

this tendency. Contrary to expectations, participants were much more likely to choose the unconflicted protagonist as the more moral individual in the domains of Care and Fairness than in the binding domains of Authority, Loyalty, and Purity. Importantly, although some differences emerged across samples, the same general pattern of results was observed for both undergraduate participants and the Web sample, as well as for both liberal participants and conservatives. Below I will discuss, first, the overall tendency to find lack of conflict more moral, and second, the surprising differences between the moral domains.

That participants in this study overwhelmingly chose unconflicted individuals as more moral than those who had to overcome temptation is striking, given that this is the opposite pattern of what has been found in prior research. There are several possible explanations. It could be that although adults believe children (featured in Starmans and Bloom's [2016] vignettes) benefit from reflecting on less moral alternatives before choosing to do the right thing, they believe that adults should already have figured out what the right thing to do is. Adults, in other words, shouldn't be tempted to harm or cheat others, as they are assumed to have reached their highest level of moral development (and potentially are too old to learn by overcoming temptation). Moreover, it is easier to attribute the good behavior of a child (who is not tempted to do wrong) to parental pressure rather than any internal desire to do right; adults, on the other hand, are easily assumed to be autonomous agents, acting on internal (moral in this case) desires (see Kelley, 1973).

Alternatively, it may be that the actions in the child-centric vignettes used by Starmans and Bloom (and as trial vignettes in the current research) are intrinsically

different from those featured in the adult-centric vignettes used here to test the violations of the moral domains. The child vignettes featured helping (not helping), telling the truth (lying), or keeping a promise (or not). Vignettes in the current study featured acting kindly (providing emotional support to someone in need) or honestly (distributing money fairly), choosing to remain loyal, respecting authority, or following purity norms (avoiding incest or not eating a dead body), all of which are more complex, adult actions. Although it might seem intuitive for people to deliberate about their actions more in more complex situations, the greater complexity of vignettes and the actions featured here may have triggered prior biases (see Guglielmo, 2015); for example, participants might have thought "they should know better by now!" In other words, it could be that either the actors or the actions featured in the current vignettes encouraged preference for the unconflicted protagonist, independently of moral domain.

A second result that merits consideration is that, of all the moral domains tested here, the bias in favor of morally unconflicted individuals was strongest for the domains of Care and Fairness. Although this effect runs counter to initial hypotheses, it may make sense when viewed through the lens of Moral Foundations Theory. Moral concerns about care (not harming others) and fairness or social justice are universal; both liberals and conservatives, Haidt has claimed (2007; Haidt & Graham, 2007), value Care and Fairness, but only conservatives have moral concerns regarding Authority, Loyalty, and Purity. As such, the greater agreement on moral judgment in the Care and Fairness vignettes than in the binding domains may simply reflect the broader agreement across the political spectrum. Indeed, *post hoc* analyses showed no significant differences in judgment between conservatives and liberals in the Care and

Fairness domains. On the other hand, there were much greater differences in judgment in the three binding domains (see Table 4). Whereas everyone may agree that by the time people reach adulthood they should know better than to harm or cheat another, the importance given to respect for authority, loyalty, and purity in part seems to depend upon political orientation. These results are in line with prior research: Frimer and colleagues (2013) found that liberals and conservatives agreed on the importance of care and fairness when it came to evaluating known exemplars, but they disagreed strongly on the value of authority, with conservatives finding it admirable to respect authority whereas liberals did not. In terms of the present research, such an opposing approach to authority would result in liberals sometimes finding the protagonist who doubted authority (conflicted) more moral, whereas conservatives should more uniformly find lack of conflict more moral; *post hoc* analyses supported this reasoning, although further research is needed to confirm the results. The current results, especially for the Web sample, suggest that political orientation may also affect character judgment in the Loyalty domain.

Despite political differences that merit further research, both conservative participants and liberal participants showed a smaller bias for unconflicted protagonists in the binding domains (Loyalty, Purity, and Authority) compared to the individualizing domains of Fairness and Harm. This result was unexpected. Because purity by its very nature demands wholehearted endorsement (and even a small affront to it can elicit a reaction; Helzer & Pizarro, 2011), it seemed intuitively sound to believe participants would find even being *tempted* to violate purity norms wrong (especially when it comes to incest). Similarly, although thinking about breaking rules does not incur legal

penalties, in real-world social interactions, hesitation to obey is treated like disobedience, and the implication that a friend (or significant other) *might* be disloyal can feel like betrayal; yet, these were the very domains in which participants were most willing to consider the individual who had an internal debate about doing the right thing to be more moral than one who acted morally without debate or effort. Thus, is worth examining the results in each of the three binding domains in more detail.

Curiously, in the undergraduate sample, responses to the two purity vignettes were significantly different: it was in the *incest* vignette that participants were more likely to find the conflicted protagonist more moral, rather than in the cannibalism vignette. To what degree might this reflect beliefs or attitudes regarding sexual temptation more broadly? Given that there were no significant differences in responding in the pilot study or the web sample, the difference found between the two Purity vignettes in the undergraduate sample may be due to chance, but it is still worthy of further study.

Equally intriguing were the responses in the Loyalty domain: in both samples, participants were most likely to choose the individual who overcame temptation as the more moral of the two in the vignettes targeting loyalty, and in the Web sample, participants were just as likely to choose the conflicted protagonist as more moral as they were to choose the unconflicted one. One vignette featured loyalty to the family business; the other featured loyalty to a college sports team. It is possible that participants simply do not find leaving the family business or the college team to be a morally relevant violation of loyalty, thus leading to more chance responding, but this seems unlikely given that loyalty, as proposed by Moral Foundations Theory and based

in evolutionary theory (Graham et al., 2012), is to the group: family is the most important group from an evolutionary point of view, and even the most basic assignment to "teams" inspires group behavior (Minimal Group Paradigm; Tajfel, Billig, Bundy, & Flament, 1971). A more plausible explanation is that these particular challenges to moral character are seen as more tempting because of long-term benefits that these particular betrayals would convey. Interestingly, for bad outcomes, it was also in the vignettes that targeted Loyalty that participants were most likely to find the unconflicted protagonist (in this case, the one who did not even try to remain loyal) more moral. It may be that being true to oneself by pursuing advantageous opportunities in an athletic or professional career is seen as a moral choice, despite the conflict with group loyalty.

Responses in the Authority domain were more similar to those in the Purity domain, falling between those in the Loyalty and individualizing domains. The Authority vignettes involved running a red light (in the middle of the night, with no one around) and cutting in line. There were no significant differences in responding across the two types of vignettes in any sample. As expected, most participants found the unconflicted protagonist more moral; what is intriguing is that they were less likely to do so in the Authority domain than in the Care and Fairness domains. Although this could reflect the different values placed on authority across the political spectrum (Frimer et al., 2013), the differences in judgment between conservatives and liberals were not large, with p-values of $.04 \leq p\text{s} \leq .05$, thus not significant at the $p < .01$ set *a priori* for *post hoc* analyses. It could also be due to the operationalizing of "authority" in the vignettes: to avoid confounds with the Loyalty domain, authority figures (such as

law enforcement officers) were avoided in favor of running a red light and cutting in line. Future research is needed to explore how respect for authority may influence the value placed on moral striving vs. lack of temptation.

It is worth noting that although there were significant differences in moral judgment between most domains in the good outcome vignettes, this was not true for the bad outcome vignettes. When it came to doing the *wrong* thing, participants overwhelmingly found the protagonists who tried to resist temptation more moral, and the only significant differences between domains was for Loyalty: in all other domains, participants were equally unlikely to find the unconflicted protagonists more moral. As discussed above, it may be that some people find it more moral to be true to oneself when it comes to personal growth (e.g., moving on to a better job or more competitive sports team). In general, however, it does not seem surprising that people find it more moral to at least have *tried* to resist temptation. Importantly, however, there were participants who found the protagonists who did wrong *without* trying to overcome temptation more moral. Identifying traits that might be related to this choice—and to the differences in moral judgment in the good outcome scenarios—was the purpose of Study 2.

Study 2

Although results from Study 1 suggested less variation in preferences for striving than had been expected, there were nonetheless individual differences in responses to the different vignettes. The purpose of Study 2 was to test whether preferences for striving vs. lack of temptation relate to individual differences in personality, morality, and other relevant constructs.

Participants and Procedure

The same participants from Study 1 participated in this experiment. Data collection was simultaneous for all three studies; after completing the vignette exercise, participants completed a subset of the questionnaires described below. In the undergraduate sample (N = 441), questionnaires were divided between Parts 1 and 2 of the survey. For the Web sample (N = 186), participants completed the Moral Foundations Questionnaire only.

Instrumentation

Moral Foundations Questionnaire. Developed to measure the extent to which participants value the five moral domains, the MFQ (Graham et al., 2011) consists of two sections with different formats, each of which contains 3 items for each domain plus on filler question. The first section asks participants to indicate how relevant certain things are when they make decisions between right and wrong, for example: "whether or not someone suffered emotionally" or "whether or not someone showed a lack of loyalty." Responses are on a 6-point scale ranging from *not at all relevant* (1) to *extremely relevant* (6). In the second section, participants indicate their agreement to states such as "Respect for authority is something all children need to learn," and "Justice is the most important requirement for a society," scored on a 6-point Likert-type scale (*strongly disagree* [0] to *strongly agree* [6]). To improve internal consistency reliability, two items were dropped from the Care subscale, and one was dropped from the Fairness subscale (see Appendix B). See Table 5 for means and internal consistency reliability for all scale scores and Appendix B for item content and response format details.

Table 5

Internal consistency reliabilities, means, standard deviations, and skew for all self-report scales.

	Source	α	*M*	*SD*	Skew
Undergraduate sample					
MFQ Care[a]	Graham et al., 2011	.73	4.71	0.76	neg
MFQ Fairness[b]	Graham et al., 2011	.72	4.66	0.73	neg
MFQ Authority	Graham et al., 2011	.65	4.18	0.72	neg
MFQ Loyalty	Graham et al., 2011	.69	3.99	0.80	none
MFQ Purity	Graham et al., 2011	.72	3.95	0.88	neg
Openness	John et al., 1991; 2008	.77	3.35	0.56	none
Conscientiousness	John et al., 1991; 2008	.78	3.61	0.53	none
Extraversion	John et al., 1991; 2008	.86	3.22	0.72	none
Agreeableness	John et al., 1991; 2008	.75	3.77	0.50	none
Neuroticism	John et al., 1991; 2008	.82	3.06	0.73	none
Integrity	Black & Reynolds, 2016	.86	3.94	0.55	none
Moral Self	Black & Reynolds, 2016	.76	4.16	0.44	neg
Moral Agency	Black, 2016	.86	3.93	0.45	none
Machiavellianism	Dahling et al., 2009	.83	2.35	0.60	none
Need for Cognition	Cacioppo & Petty, 1980	.86	3.20	0.59	none
Ambiguity Tolerance	McLain, 1993; 2009	.78	4.42	0.71	none
Imaginative Resistance	Black & Barnes, 2017	.89	2.81	0.67	none
Web sample					
MFQ Care [a]	Graham et al., 2011	.74	4.93	0.82	neg
MFQ Fairness[b]	Graham et al., 2011	.68	4.85	0.73	neg
MFQ Authority	Graham et al., 2011	.72	3.51	0.95	none
MFQ Loyalty	Graham et al., 2011	.71	3.48	0.89	none
MFQ Purity	Graham et al., 2011	.82	3.13	1.16	none

Note. The Moral Foundations Questionnaire (MFQ) is answered on a 6-point scale; Ambiguity tolerance is answered on a 7-point scale; all others were 5-point scales. [a]Two items were dropped from the MFQ Care subscale; [b]One item was dropped from the MFQ Fairness subscale. neg = negative.

Big Five Inventory. (BFI; John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008). Personality was assessed according to the Big Five model, using 44 items prefaced by "I am someone who…" (e.g., "is talkative"; "gets nervous easily"; "does things efficiently") and answered on a 5-point Likert scale. The five personality factors assessed are Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. John and colleagues report internal consistency reliabilities ranging from $r_\alpha = .79$ to $r_\alpha = .90$, and mean test-retest reliability of $r = .74$. See Table 5 for internal consistency reliability in this research.

Moral Identity Questionnaire. The two subscales of the Moral Identity Questionnaire (MIQ; Black & Reynolds, 2016) were used to measure Integrity (12 items) and Moral self (8 items). Answer choices are on a 6-point Likert-type scale (*strongly disagree* to *strongly agree*) to items such as "It is important for me to treat other people fairly," and "If no one is watching or will know it does not matter if I do the right thing." Black and Reynolds reported internal consistency reliabilities of $.84 \leq r_\alpha \leq .86$ (Moral Self) and $.87 \leq r_\alpha \leq .89$ (Integrity). See Table 5 for details.

Moral Agency Scale. The 15-item Moral Agency Scale (MAS; Black, 2016) assesses perceived control over morally relevant actions with items such as "No one can make me do something I know to be wrong," and "I feel responsible for the consequences of my actions," that are answered on a 5-point Likert scale. Internal consistency was $r_\alpha = .80$ and $r_\alpha = .85$ in the two scale development studies, and $r_\alpha = .86$ in the current research.

Machiavellianism. The Machiavellian Personality Scale (MPS; Dahling et al., 2009) measures four traits typical of Machiavellian attitudes and behavior, amorality,

distrust of others, desire for control, and desire for status. The desire for control and status subscales are self-oriented (e.g., "I wish to be rich and powerful someday") and are therefore not used in the present research. The amorality (e.g., "I would cheat if there was a low chance of getting caught") and distrust of others (e.g., "People are only motivated by personal gain") will be combined for an overall measure of Machiavellianism. Answers are made on a 5-point Likert scale. Dahling et al. reported internal consistency reliabilities of $r_\alpha = .85$ and $r_\alpha = .74$ respectively for the two subscales (see Table 5 for this study).

Need for Cognition. The predisposition to seek out and enjoy for activities that involve cognitive challenge was assessed with Cacioppo and Petty's (1982) 18-item Need for Cognition Scale (NCS). Those who score high on the NCS are comfortable with problem-solving, including organizing and interpreting information. Items such as "I would prefer complex to simple problems" and "I only think as hard as I have to." are rated on a 5-point scale (*extremely uncharacteristic/extremely characteristic of me*). See Table 5.

Multiple Stimulus Types Ambiguity Tolerance (MSTAT-II; McLain, 1993; 2009). Tolerance for ambiguity was measured with the 13-item MSTAT-II, a shortened version of the original 22-iten MSTAT-I that refines the item pool. Items such as "I don't tolerate ambiguous situations well" (reverse scored) and "I generally prefer novelty over familiarity" are answered on a 7-point Likert type scale (*strongly disagree* to *strongly agree*). McLain (2009) reported alpha reliabilities from $.79 \leq r_\alpha \leq .83$ ($r_\alpha = .78$ here).

Imaginative resistance. The 13-item Imaginative Resistance Scale (IRS; Black & Barnes, 2017) assesses the unwillingness or inability to entertain fictions where morality operates differently, or that feature immoral characters or situations. Items (e.g., "I just can't go along with a story when it violates my beliefs about morality" and "Being asked to imagine morally repugnant things makes me uncomfortable") are answered on a 5-point Likert scale; the IRS includes three filler items. The authors reported internal consistency of $.91 \leq r_{\alpha} \leq .92$ and test-retest reliability of $r_{tt} = .79$ ($r_{\alpha} = .89$ in the current research).

Data Analyses

Power analyses and stopping rule are described in study 1. For data exclusion, time spent on each questionnaire was recorded. Data from participants who took less than 30 seconds on three or more questionnaires discarded.

Independent samples *t*-tests were used to compare means for each scale between participants who select the unconflicted protagonist and those who select the conflicted one at the individual domain level. For personality, logistic regression was used to assess the effect of each factor controlling the other four. Because participants found the unconflicted protagonist more moral across domains, an overall moral conflict preference score was computed by summing the five domain choices (1 = conflicted, 0 = unconflicted, such that those who found the unconflicted protagonist most moral in all domains scored zero, and those who found the conflicted protagonist more moral in all domains scored five). Spearman's rho was used to test for associations between overall moral judgment scores and individual differences in personality, morality, and related

variables. Confidence intervals were calculated with bias corrected and accelerated bootstrapping (N = 5,000).

The criterion for rejecting the null hypothesis was $p < .05$ for all hypotheses specified *a priori*. All *post hoc* comparisons dependent on primary hypothesis and exploratory analyses specified *a priori* used alphas of $p < .01$. For results reported from unspecified analyses (e.g., association of demographic variables), effects were considered statistically significant if $p < .001$.

Results

Preliminary Analyses

Because there were differences in responses to the two vignettes in the Purity domain, I tested for an interaction between vignette (A vs B) and moral judgment (conflicted vs. unconflicted) for each outcome variable specified in the hypotheses. There were no significant interactions, and the direction of the relationship were the same, so the responses across the two vignettes were combined for the following analyses.

Tables A3 – A4 in Appendix D present statistics for the association of demographic variables (gender, ethnicity, mother's education, religion, and age) and individual differences in the constructs measured in this study. Tables A5 and A6 in Appendix D present statistics for gender differences in all variables.

In the undergraduate sample, women had higher scores in Neuroticism, as well as on the Moral Self and Integrity scales (ps < .001; ds ≥ 0.37; see Table A5). Men scored higher in Machiavellianism (p = .001, d= 0.33). In the Web sample, women had higher scores than men in the MFQ subscales of Care and Purity (ps < .01; ds ≥ 0.44).

There were no other gender differences. In line with past research (e.g., Graham et al., 2009), political orientation was associated with scores on the Moral Foundations Questionnaire: increased liberalism was associated with higher scores in the Care and Fairness domains, and increased conservatism was associated with higher scores in the Authority, Loyalty, and Purity domains (all *p*s < .001; see Table A4 for details). Openness to experience and Need for Cognition were positively associated with greater liberalism (*p*s < .001), whereas greater imaginative resistance was correlated with greater conservatism (see Table A4 for details).

Primary Analyses

Personality. I had predicted an association between the personality factors of Openness to Experience, Conscientiousness, Agreeableness, and Neuroticism and moral character judgment. No association was expected between Extraversion and moral character judgment. The results for each hypothesis are summarized in Table 6; details can be found below. Correlations between personality factors and all other variables can be found in Table A7 (Appendix D).

Across the five domains, those who found the conflicted protagonist more moral tended to report higher openness to experience scores: although only one *t*-test was statistically significant (Purity domain: $t(393) = 2.18$, $p = .030$, $d = 0.26$), when all five personality factors were controlled in logistic regression models, openness significantly predicted preference for the conflicted protagonist in all five domains, $.013 \leq p\text{s} \leq .044$, odds ratios ≥ 1.55. Those who found the unconflicted protagonist more moral in the Fairness domain scored higher in neuroticism than those who chose the conflicted protagonist as more moral ($t(393) = 2.07$, $p = .039$, $d = 0.32$); this relationship held in

Table 6

Results of hypotheses regarding personality traits in Study 2 (undergraduate sample).

Personality factor	**Result**
Openness to experience	Confirmed: Controlling for other personality factors, participants who preferred the conflicted protagonist scored higher in Openness to Experience in all five domains
Conscientiousness	Only true in the Loyalty domain, where participants who reported greater conscientiousness found the unconflicted protagonist more moral. No association was found in the other domains
Agreeableness	Not confirmed: agreeableness was not related to moral judgment.
Neuroticism	Only true in the Fairness and Loyalty domains, where participants who scored higher in Neuroticism preferred the unconflicted character when all personality factors were controlled.
Extraversion	As expected, extraversion was not related to moral judgment

Note. N = 441. Non-directional associations between moral character judgment and all personality factors expect extraversion had been predicted.

the logistic regression model, controlling for all five personality factors (Wald X^2 = 6.07, p = .014, odds ratio = 0.56). Neuroticism was also associated with a preference for the unconflicted protagonist in the Loyalty domain in the logistic regression model (Wald X^2 = 5.64, p = .018, odds ratio = 0.67). Conscientiousness was the strongest predictor of moral judgment in the Loyalty domain (more conscientious people found the unconflicted protagonist more moral, $t(393) = 2.61$, p = .010, d = 0.28, Wald X^2 = 7.53, p = .006, odds ratio = 0.53).

Moral Foundations Questionnaire. All tests of the association between scores on the MFQ and moral judgment were exploratory. The pattern of results suggested that scores in the binding domains of Authority, Loyalty, and Purity tend to be higher in participants who prefer the unconflicted character across domains. For details, see Table 7 (undergraduates) and Table 8 (Web sample).

Moral judgment was most reliably related to scores on the binding foundations subscales: in all cases where the association was statistically significant, participants who found the unconflicted character more moral had higher scores in the MFQ Authority, Loyalty, and Purity domains ($0.29 \leq d\text{s} \leq 0.66$). In the undergraduate sample, higher scores in the binding foundation subscales were significantly associated with preference for the unconflicted protagonist in all domains, with the exception of Authority, where the difference was not significant at p <.05 for scores on the Loyalty and Purity subscales. In the Web sample, the differences in scores were significant only in the domains of Loyalty and Purity. Scores on the MFQ individualizing subscales were not as predictive of moral judgment. Higher scores on the Fairness subscale were associated with preference for the unconflicted protagonists in the domains of Fairness

Table 7

Undergraduate sample: Comparisons between scores on Moral Foundations Questionnaire subscales for participants who found the conflicted vs. unconflicted protagonists more moral,

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	*t*	*p*	*d*
Care							
MFQ Care	73	321	4.62 (0.71)	5.33 (4.37)	1.13	.261	0.15
MFQ Fairness	73	321	4.54 (0.72)	4.69 (0.73)	1.60	.111	0.21
MFQ Authority	73	321	3.96 (0.66)	4.23 (0.73)	2.90	.004	0.39
MFQ Loyalty	73	321	3.80 (0.76)	4.04 (0.80)	2.31	.021	0.30
MFQ Purity	73	321	3.70 (0.87)	4.01 (0.87)	2.73	.007	0.35
Fairness							
MFQ Care	52	342	4.46 (0.72)	4.74 (0.75)	2.53	.012	0.38
MFQ Fairness	52	342	4.45 (0.70)	4.69 (0.73)	2.28	.023	0.34
MFQ Authority	52	342	3.83 (0.72)	4.24 (0.71)	3.84	< .001	0.57
MFQ Loyalty	52	342	3.67 (0.90)	4.04 (0.77)	3.20	.001	0.45
MFQ Purity	52	342	3.53 (0.76)	4.02 (0.88)	3.82	< .001	0.60
Authority							
MFQ Care	104	290	4.62 (0.77)	4.74 (0.75)	1.36	.176	0.15
MFQ Fairness	104	290	4.49 (0.73)	4.72 (0.72)	2.75	.006	0.31
MFQ Authority	104	290	4.03 (0.66)	4.24 (0.74)	2.61	.009	0.31
MFQ Loyalty	104	290	3.88 (0.76)	4.03 (0.81)	1.69	.093	0.20
MFQ Purity	104	290	3.81 (0.91)	4.00 (0.86)	1.94	.053	0.22
Loyalty							
MFQ Care	132	262	4.62 (0.76)	4.75 (0.75)	1.66	.098	0.18
MFQ Fairness	132	262	4.62 (0.72)	4.68 (0.74)	0.78	.438	0.08
MFQ Authority	132	262	4.00 (0.71)	4.28 (0.72)	3.63	< .001	0.39
MFQ Loyalty	132	262	3.81 (0.83)	4.09 (0.77)	3.35	.001	0.35
MFQ Purity	132	262	3.76 (0.83)	4.05 (0.89)	3.05	.002	0.33
Purity							
MFQ Care	94	300	4.64 (0.75)	4.73 (0.76)	0.96	.338	0.11
MFQ Fairness	94	300	4.55 (0.76)	4.69 (0.72)	1.63	.104	0.19
MFQ Authority	94	300	3.99 (0.83)	4.24 (0.68)	3.01	.003	0.34
MFQ Loyalty	94	300	3.81 (0.90)	4.05 (0.75)	2.58	.010	0.29
MFQ Purity	94	300	3.69 (1.01)	4.04 (0.82)	3.38	.001	0.38

Note. N = 394 (df = 392) for all comparisons.

Table 8

Web sample: Comparisons between scores on MFQ subscales for participants who found the conflicted vs. unconflicted protagonists more moral.

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	*t*	*df*	*p*	*d*
Care								
MFQ Care	25	145	4.91 (0.69)	4.96 (0.85)	0.30	168	.765	0.07
MFQ Fairness	25	145	4.66 (0.70)	4.90 (0.71)	1.57	168	.118	0.34
MFQ Authority	25	145	3.43 (0.96)	3.54 (0.98)	0.49	168	.626	0.11
MFQ Loyalty	25	145	3.67 (0.76)	3.49 (0.90)	0.64	168	.526	0.15
MFQ Purity	24	144	2.82 (1.09)	3.16 (1.16)	1.35	166	.178	0.30
Fairness								
MFQ Care	25	144	4.89 (1.01)	4.97 (0.80)	0.44	167	.662	0.09
MFQ Fairness	25	144	4.92 (0.78)	4.87 (0.70)	-0.35	167	.730	-0.07
MFQ Authority	25	144	3.30 (0.98)	3.56 (0.98)	1.24	167	.217	0.27
MFQ Loyalty	25	144	3.32 (1.03)	3.50 (0.86)	0.91	167	.362	0.19
MFQ Purity	25	143	2.77 (1.07)	3.17 (1.16)	1.61	166	.110	0.36
Authority								
MFQ Care	61	109	5.13 (0.66)	4.86 (0.89)	-2.08	168	.038	-0.35
MFQ Fairness	61	109	4.89 (0.63)	4.86 (0.76)	-0.26	168	.794	-0.04
MFQ Authority	61	109	3.46 (0.95)	3.56 (0.99)	0.62	168	.534	0.10
MFQ Loyalty	61	109	3.49 (1.02)	3.46 (0.80)	-0.17	168	.863	-0.03
MFQ Purity	60	108	3.17 (1.12)	3.08 (1.17)	-0.45	166	.655	-0.07
Loyalty								
MFQ Care	81	88	4.94 (0.84)	4.97 (0.82)	0.24	167	.814	0.04
MFQ Fairness	81	88	4.85 (0.79)	4.90 (0.64)	0.44	167	.660	0.07
MFQ Authority	81	88	3.23 (0.88)	3.80 (0.99)	3.92	167	<.001	0.61
MFQ Loyalty	81	88	3.31 (0.87)	3.62 (0.88)	2.26	167	.025	0.35
MFQ Purity	81	87	2.74 (1.01)	3.46 (1.17)	4.24	166	<.001	0.66
Purity								
MFQ Care	69	100	4.83 (0.85)	5.04 (0.80)	1.62	167	.107	0.25
MFQ Fairness	69	100	4.87 (0.79)	4.88 (0.65)	0.03	167	.975	<0.01
MFQ Authority	69	100	3.30 (0.97)	3.68 (0.96)	2.46	167	.015	0.38
MFQ Loyalty	69	100	3.26 (0.86)	3.62 (0.88)	2.65	167	.009	0.42
MFQ Purity	69	99	2.73 (1.06)	3.38 (1.15)	3.69	166	<.001	0.58

(p = .023, d = 0.34) and Authority (p = .006, d = 0.31) in the undergraduate sample. Higher scores on the Care subscale were associated with preference for the unconflicted protagonist in the Fairness domain (p = .012, d = 0.38) in the undergraduate sample, and with preference for the *conflicted* protagonist in the Authority domain (p = .038, d = 0.35) in Web sample.

Integrity and Moral Self. I had expected greater self-reported integrity to be associated with a preference for the unconflicted character across domains; this was only partially supported. Similarly, I had predicted that higher scores on the moral self scale would be associated with a preference for the unconflicted character across domains; this was also partially supported. Participants who found the unconflicted protagonist more moral tended to report greater integrity ($0.08 \leq d \leq 0.26$) and moral self ($0.12 \leq d \leq 0.26$). However, the difference was only statistically significant in the Care domain (see Table 9 for details on all variables with at least one comparison where $p < .10$).

Moral Agency. Self-reported moral agency was expected to be related to moral character judgment in all domains, good and bad outcomes. Contrary to this hypothesis, there were no differences in self-reported moral agency across moral character preferences in any of the domains in vignettes with good outcomes ($-0.02 \leq d \leq 0.08$), or in vignettes with bad outcomes for all but the Purity domain, where participants who found the conflicted protagonist more moral than the unconflicted protagonist scored higher in Moral Agency ($t(364) = 2.56$, p = .025, d = 0.40).

Machiavellianism. Hypotheses regarding Machiavellianism were made only with regard to vignettes with bad outcomes: higher scores on the Machiavellianism

Table 9

Comparisons between those who preferred the conflicted vs. the unconflicted protagonists in good outcome vignettes for scores in Integrity, Moral Self, Moral Agency, Need for Cognition, and Imaginative Resistance.

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	*t*	*df*	*p*	*d*
Care								
Integrity	80	361	3.82 (0.58)	3.97 (0.54)	2.14	439	.033	0.26
Moral Self	80	361	4.07 (0.45)	4.18 (0.44)	2.12	439	.035	0.26
Moral Agency	73	322	3.94 (0.44)	3.93 (0.45)	0.18	393	.858	-0.02
Need for Cognition	73	320	3.24 (0.62)	3.19 (0.59)	0.67	391	.503	-0.09
Imaginative Resistance	71	320	2.62 (0.61)	2.85 (0.68)	2.66	389	.008	0.36
Fairness								
Integrity	55	386	3.82 (0.53)	3.96 (0.55)	1.71	439	.089	0.25
Moral Self	55	386	4.07 (0.44)	4.18 (0.44)	1.66	439	.097	0.24
Moral Agency	53	342	3.91 (0.46)	3.93 (0.45)	0.31	393	.759	0.04
Need for Cognition	52	341	3.29 (0.56)	3.19 (0.60)	1.20	391	.230	-0.18
Imaginative Resistance	52	339	2.54 (0.61)	2.85 (0.67)	3.13	389	.002	0.48
Authority								
Integrity	114	327	3.88 (0.56)	3.96 (0.55)	1.33	439	.185	0.14
Moral Self	114	327	4.11 (0.47)	4.18 (0.43)	1.38	439	.170	0.15
Moral Agency	104	291	3.91 (0.46)	3.94 (0.45)	0.49	393	.621	0.06
Need for Cognition	104	289	3.24 (0.61)	3.19 (0.59)	0.82	391	.415	-0.09
Imaginative Resistance	102	289	2.76 (0.63)	2.82 (0.69)	0.89	389	.377	0.10
Loyalty								
Integrity	148	293	3.91 (0.54)	3.96 (0.56)	0.80	439	.425	0.08
Moral Self	148	293	4.12 (0.43)	4.18 (0.45)	1.37	439	.171	0.14
Moral Agency	132	263	3.92 (0.46)	3.93 (0.45)	0.37	393	.714	0.04
Need for Cognition	131	262	3.23 (0.60)	3.19 (0.59)	0.59	391	.557	-0.06
Imaginative Resistance	130	261	2.78 (0.62)	2.82 (0.70)	0.49	389	.626	0.05
Purity								
Integrity	102	339	3.86 (0.52)	3.97 (0.56)	1.73	439	.084	0.20
Moral Self	102	339	4.12 (0.44)	4.18 (0.44)	1.09	439	.278	0.12
Moral Agency	95	300	3.90 (0.45)	3.94 (0.45)	0.71	393	.477	0.08
Need for Cognition	94	299	3.34 (0.56)	3.16 (0.60)	2.56	391	.011	-0.31
Imaginative Resistance	92	299	2.61 (0.70)	2.87 (0.66)	3.23	389	.001	0.38

scale was predicted to be associated with preferences for the unconflicted character across domains. This was partially supported: participants who found the unconflicted protagonist—who did not even think about doing the *right* thing—more moral in the bad outcome vignettes scored higher on the Machiavellianism scale ($0.06 \leq d \leq 0.75$). The largest effects were for Fairness and Purity vignettes; the difference was not significant in the Authority and Loyalty domains. See Table 10 for bad outcome analyses details.

Ambiguity Tolerance. Participants who found the conflicted protagonist more moral were expected to report greater tolerance for ambiguity (good outcomes). This was not confirmed. Self-reported Ambiguity Tolerance was not related to moral character judgment in any domain (*p*s > .350).

Need for Cognition. Participants who found the conflicted character more moral were predicted to report greater need for cognition. This hypothesis was partially supported: participants who found the conflicted protagonist more moral tended to self-report greater need for cognition ($0.06 \leq d \leq 0.31$). However, the difference was only statistically significant in the Purity domain (see Table 9). For the bad outcome vignettes, participants in the Authority domain who found the conflicted protagonist more moral had significantly higher scores in need for cognition than those who preferred the unconflicted protagonist ($t(364) = 2.10$, $p = .036$, $d = 0.45$; see Table 10 for details).

Imaginative resistance. Participants who preferred the unconflicted protagonists across domains were expected to self-report greater imaginative resistance: this was partially confirmed. Participants who found the unconflicted protagonist more

Table 10

Comparisons between those who preferred the conflicted vs. the unconflicted protagonists in bad outcome vignettes for scores in Machiavellianism, Integrity, Moral Self, Moral Agency, and Need for Cognition.

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	t	df	p	d
Care (Harm)								
Machiavellianism	341	25	2.29 (0.59)	2.60 (0.68)	2.48	364	.014	-0.48
Integrity	342	25	3.98 (0.53)	3.94 (0.56)	0.39	365	.699	0.08
Moral Self	342	25	4.20 (0.40)	4.19 (0.38)	0.15	365	.878	0.03
Moral Agency	342	25	3.98 (0.42)	3.99 (0.48)	0.12	365	.902	0.02
Need for Cognition	341	25	3.21 (0.59)	3.42 (0.68)	1.74	364	.083	0.34
Fairness (Cheating)								
Machiavellianism	341	25	2.28 (0.59)	2.73 (0.60)	3.66	364	< .001	-0.75
Integrity	342	25	4.00 (0.54)	3.74 (0.38)	2.37	365	.018	0.56
Moral Self	342	25	4.20 (0.40)	4.12 (0.37)	1.06	365	.289	0.23
Moral Agency	342	25	3.99 (0.42)	3.85 (0.46)	1.54	365	.125	0.31
Need for Cognition	341	25	3.24 (0.60)	3.02 (0.56)	1.71	364	.088	0.37
Authority (Subversion)								
Machiavellianism	337	29	2.30 (0.58)	2.49 (0.82)	1.67	364	.095	-0.27
Integrity	338	29	4.00 (0.53)	3.80 (0.57)	1.85	365	.066	0.35
Moral Self	338	29	4.20 (0.40)	4.15 (0.34)	0.71	365	.480	0.15
Moral Agency	338	29	3.98 (0.42)	3.89 (0.49)	1.09	365	.277	0.20
Need for Cognition	337	29	3.24 (0.61)	3.00 (0.46)	2.10	364	.036	0.45
Loyalty (Betrayal)								
Machiavellianism	312	54	2.31 (0.60)	2.35 (0.60)	0.42	364	.674	-0.06
Integrity	313	54	3.97 (0.54)	4.04 (0.48)	0.92	365	.360	-0.14
Moral Self	313	54	4.18 (0.39)	4.28 (0.42)	1.76	365	.080	-0.25
Moral Agency	313	54	3.98 (0.43)	3.98 (0.40)	0.05	365	.964	0.01
Need for Cognition	312	54	3.21 (0.59)	3.31 (0.65)	1.19	364	.234	-0.17
Purity (Degradation)								
Machiavellianism	332	33	2.28 (0.56)	2.70 (0.68)	3.96	363	< .001	-0.67
Integrity	333	33	3.99 (0.53)	3.90 (0.62)	0.91	364	.365	0.15
Moral Self	333	33	4.19 (0.40)	4.27 (0.38)	1.12	364	.262	-0.21
Moral Agency	333	33	3.99 (0.42)	3.82 (0.44)	2.56	364	.025	0.40
Need for Cognition	332	33	3.22 (0.61)	3.18 (0.50)	0.37	363	.713	0.07

moral (good outcomes) reported greater imaginative resistance ($0.05 \leq d \leq 0.48$). However, the differences were not statistically significant for the Authority and Loyalty domains; see Table 9 for details.

***Post Hoc* Analyses**

Overall moral character judgment was significantly correlated with Authority, Loyalty, Purity, Openness to Experience, and Imaginative Resistance. In the undergraduate sample, choosing the unconflicted protagonist as more moral was related to greater Respect for Authority (Spearman's $\rho = -.25$, 99% CI [-.37, -.12]), Loyalty ($r_s = -.22$ [-.34, -.09]), Purity ($r_s = -.24$ [-.37, -.12]), and Imaginative Resistance ($r_s = -.15$ [-.28, -.02]). Choosing the *conflicted* protagonist as more moral was correlated with greater Openness, $r_s = .15$ [.02, 0.29]. In the Web sample, preference for the unconflicted protagonist was significantly related to higher scores in Authority ($r_s = -.27$ [-.45, -.07]) and Purity ($r_s = -.29$ [-.48, -.07]). No other correlation was significant at $p < .01$; see Table 11 for all effects with p-values less than .05.

Discussion

In general, hypotheses regarding the association of moral character judgment and individual differences in potentially related constructs were not confirmed. The exceptions were those concerning openness to experience, which was associated with finding the conflicted protagonist more moral in all domains (the only case where the hypotheses were fully confirmed), and imaginative resistance, which was related to preferences for the unconflicted protagonist in the domains of Care, Fairness, and Purity. Overall moral character judgment scores (summed across domains) were also significantly related ($p < .01$) to openness and imaginative resistance. Interestingly,

Table 11

Correlations (Spearman's rho) between overall moral character judgment scores and related variables in Study 2.

	Undergraduate			**Web**		
	ρ	***df***	***p***	ρ	***df***	***p***
MFQ Care	-.10	392	.045	-.01	167	.857
MFQ Fairness	-.13	392	.011	-.01	167	.878
MFQ Authority	-.25	392	< .001	-.27	167	< .001
MFQ Loyalty	-.20	392	< .001	-.16	167	.034
MFQ Purity	-.24	392	< .001	-.29	166	< .001
Openness	.15	393	.004			
Conscientiousness	-.11	393	.037			
Integrity	-.12	439	.013			
Moral Self	-.10	439	.038			
Imaginative Resistance	-.14	389	.007			
Need for Cognition	.11	391	.035			

Note. Overall moral character judgment score calculated by summing across domains (1 = conflicted protagonist; 0 = unconflicted protagonist) such that 0 indicates finding the unconflicted protagonist more moral across domains, and 5 indicates finding the conflicted protagonist more moral across domains.

individual differences on self-reported integrity, moral self, and moral agency did not seem related to moral character judgment. Greater integrity and moral self, hypothesized to be related to choosing the unconflicted protagonist across domains, were only significantly related to choosing lack of conflicted in the Care domain, and the effect size was small. Similarly, Need for Cognition, hypothesized to relate to preferences for moral conflict across domains, was only related to choosing the conflicted protagonist in the vignettes that targeted Purity. The strongest relationships were found between moral character judgment and scores on the MFQ, which were related to choices in the individual domains as well as to overall scores (choosing the unconflicted protagonist meant higher scores in Authority, Loyalty, and Purity). Although treated as exploratory analyses, these results lend credence to the choice of vignettes and support Moral Foundation Theory, which holds that people base moral judgment on the different domains.

Given the generous sample size and multiple comparisons, it is unlikely that any missed effects would be large enough to be meaningful; indeed, the significant results that did obtain should be viewed with some caution. However, there were still interesting results, discussed in detail below, and the lack of association seen here does not prove a lack of relationship between morality and moral character judgment; rather it suggests the need for more research to explore potential effects in distinct scenarios with greater context and different targeted moral behavior.

Personality. Of the five personality factors, only Openness to experience was reliably related to moral character judgment: across the five domains (controlling for the other four factors), openness to experience predicted a preference for moral striving.

Past research had shown an association between personality and scores on the MFQ subscales (Graham et al., 2011, 2012; Hirsch et al., 2010) and other moral constructs (Black et al., 2017; Habashi, et al., 2016), with the exception of extraversion (this non-relationship was confirmed by the current results). This was particularly true of the "moral personality" factors of Agreeableness, Conscientiousness, and Openness (McFerran et al., 2010); here, however, only openness was related to moral judgment in all domains. This may reflect a greater willingness to consider potential situations where it may be necessary to break moral taboos or go against conventional norms (see Black et al., 2017 who reported a positive correlation between moral permissibility and openness to experience). People who are open to experience may also value the willingness to think critically about each morally relevant situation as it presents and to learn from mistakes (Davis et al., 2015; Facione, Sanchez, Facione, & Gainen, 1995). In the Loyalty domain, both Conscientiousness and Neuroticism also predicted moral judgment; higher scores in both were associated with a preference for the unconflicted protagonist. Given that Loyalty was the domain for which participants were most likely to prefer the character who had to strive to be good, it seems that personality may play a larger role in character judgment here than in the other moral domains. It was somewhat surprising that Agreeableness, often associated with morality (McFerran et al.; Walker, 2010), was not related to moral character judgment in this research. However, Hirsh and colleagues (2010) found that the relation of agreeableness to MFQ scales depended on the type of agreeableness measured, with compassion being positively related to Care and Fairness whereas politeness was related to Authority. To

the extent that moral judgment may reflect political orientation, such past research explains the lack of effect of agreeableness here.

Moral Foundations Theory. The analyses of the association of MFQ scores and moral character judgment were exploratory, and results differed across the two samples, with effect sizes being much stronger in the undergraduate sample. In general, participants who found the unconflicted protagonist more moral scored higher on all the MFQ subscales, across domains of moral judgment, suggesting that in general, people who prefer lack of moral conflict place greater value on all the moral foundations, but particularly the binding ones. The only exception was in the Web sample, where participants who preferred the conflicted candidate scored higher on the MFQ Care subscale ($d = 0.35$, $p = .038$). This difference was not statistically significant at $p < .01$ (the criterion for exploratory analyses—in itself liberal considering the number of analyses); however, it is worth noting that Frimer et al. (2013) found that liberals—who score higher on the MFQ individualizing subscales—actually found behavior exemplifying the Authority domain *less* moral when judging moral exemplars. As such, this effect might be worthy of further exploration.

These results (strongest in the politically conservative undergraduate sample) are in line with the hypotheses regarding moral character judgment across domains: people who judged the unconflicted protagonists most moral tended to score higher on the MFQ binding domains. It may be that although the moral domain does not alter the overall preference for lack of conflict (virtue rather than striving), individual differences in the extent to which people base their judgment on the different foundations *do* affect preference for striving. For example, in the undergraduate sample, selecting the

unconflicted protagonist as more moral was significantly associated with higher scores on the MFQ subscale for all vignettes.

Other moral constructs. Imaginative resistance, which refers to the reluctance to engage with morally deviant fictional worlds and has been associated with morality in prior research (Black & Barnes, 2017; Black & Barnes, in preparation), was related to moral judgment in the domains of Care, Fairness, and Purity (ds ≥ 0.36). Unsurprisingly, given the strong correlation between Purity and Imaginative Resistance (Black & Barnes, 2017), people who self-reported greater imaginative resistance found the unconflicted protagonists more moral. Black and Barnes suggested that imaginative resistance reflects fear of moral contagion, and given that immoral fictional acts are carried out precisely by protagonists (or antagonists), it could be that the same fear of contagion that keeps people from engaging with fictional worlds makes them less likely to appreciate any temptation to act immorally in supposedly real people, even those described in brief vignettes such as those used in this research (see also Stueber, 2011).

Contrary to expectations, integrity, moral self, and moral agency were not related to moral character judgment in scenarios in which the protagonist ultimately behaved in a moral fashion. Preference for the unconflicted character in the Care domain was associated with higher scores in Integrity and Moral Self, but given the small effect sizes and multiple analyses, p-values greater than .03 do not provide good evidence of a reliable effect. This was most surprising in the domain of Fairness, where judging the morality of someone fairly distributing money would seem an important reflection of integrity. It may be that judging *others*' moral character may not reflect self-oriented (and reported) evaluations of morality. Given that the scenarios targeted

the domains described in Moral Foundations Theory (and scores on MFQ scales *were* related to moral character judgment), it could also be that judgment of moral character depends more on the type of behavior (and domain-specific values) than on general moral traits such as sense of moral self and integrity.

It should be noted that whereas scores on the Imaginative Resistance Scale (Black & Barnes, 2017) and the Moral Foundations Questionnaire (Graham et al., 2011) have been associated with political orientation, scores on the Moral Identity Questionnaire (used to assess integrity and moral self here; Black & Reynolds, 2016) and the Moral Agency Scale (Black, 2016) do not seem to reflect politics (this was also true in this sample; see Tables A3 and A4 for details). Once again, these results, especially contrasting the two samples, suggest an important role for politics in moral judgment. That said, the overwhelming preference was still for lack of moral conflict in these particular domains (and the vignettes chosen to target them).

Need for Cognition and Ambiguity Tolerance. Contrary to expectations, need for cognition and ambiguity tolerance were not related to moral judgment in the domains tested here. There were no effects for ambiguity tolerance; if indeed individuals who have greater tolerance for ambiguity (and theoretically are more comfortable with complex situations) felt more comfortable with the uncertainty of the conflicted character, they did not subsequently value moral striving. Need for cognition was only related to moral judgment in the Purity domain. These results were more surprising considering that the most reliable significant effect was the association of greater openness to experience with preferences for moral striving. Both need for cognition and tolerance for ambiguity are essential facets of openness to experience

(McCrae & Costa, 1997), and openness has been positively correlated with both need for cognition (e.g., Madrid & Patterson, 2016; the correlation was $r(437) = .54$, $p < .001$ in this study) and ambiguity tolerance (Bardi, Guerra, & Ramdeny, 2009; $r(438) = .40$, $p < .001$ in this study). Thus the lack of association amongst need for cognition, ambiguity tolerance, and moral character judgment was particularly intriguing, suggesting on the one hand that participants may not have found the moral behavior portrayed in the vignettes particularly ambiguous or complex, and on the other, that such scenarios simply are not amongst the tasks that effectively detect differences in need for cognition and ambiguity tolerance.

Although most of the relationships between moral character judgment and individual differences in various constructs were not statistically significant, two sets of effects stood out. Openness to experience was related to moral character judgment across domains. Imaginative resistance was related to finding the unconflicted protagonist more moral in the domains of Care, Fairness, and Purity. Given that both openness and imaginative resistance are associated with fiction (e.g., Barnes & Black, 2017, in preparation; Mar et al., 2009), Study 3 was run to assess potential correlations between reading exposure and moral character judgment.

Study 3

Unexpectedly, moral character judgment was not related to ambiguity tolerance and need for cognition, both constructs that have been related to fiction exposure (Djikic et al., 2013). However, engagement with fiction could be related to moral character judgment for a variety of reasons. For example, openness to experience, which was associated with preferences for striving in all five domains in Study 2, has

been positively correlated with fiction exposure in prior research (e.g., Mar, Oatley, & Peterson, 2009). Moreover, reading in general, and fiction in particular, offers readers a unique perspective on the interior lives of other people (fictional characters or real people, in the case of narrative nonfiction) that encourages thinking about others' thoughts and intentions (Mar & Oatley, 2008; Oatley, 2016). As such, the purpose of Study 3 was to explore the association between moral character judgment in the different domains and lifetime exposure to fiction and nonfiction, as assessed using an author recognition measure.

Method

The same participants who completed Study 1 participated in this experiment (*N* = 441 for undergraduate sample and *N* = 186 for Web sample). As with Study 2, data collection was integrated with Study 1, with all reading exposure tests (described below) included with the questionnaires that followed the vignettes. For the undergraduate sample, separate author recognition tests were presented in surveys 1 and 2.

Instrumentation

Fiction exposure. Lifetime exposure to fiction was assessed with two tests, the Genre Familiarity Test (GFT; Black et al., 2017) and the Young Adult Fiction Test (YAFT). Both tests are based on the Author Recognition Test paradigm, introduced by Stanovich and West (1989): participants are presented with lists of real and fake author names, and asked to select only those they are certain are authors of books. Author name recognition is assumed to occur not only for books people have read, but for similar books, shelved according to genre in book stores and suggested based on

purchasing behavior on Internet sites such as Amazon.com. Foils are used to control for guessing (45 for GFT, from Acheson et al., 2008; 42 for YAFT, from Mar, Oatley, Hirsch, de la Paz, & Peterson, 2006). Author checklists avoid the socially desirable responding that can result from asking participants how many books they read, and prior research has shown performance on author recognition tests to be associated with book purchasing behavior (Rain & Mar, 2014).

The GFT includes seven genres, each represented by 15 names of authors who write exclusively or primarily in that genre: Classical, Contemporary Literary, Fantasy, Horror, Mystery/Thriller, Romance, and Science Fiction. Black and colleagues report alpha values ranging from $.81 \leq r_{\alpha} \leq .91$ for the individual genres. To more accurately assess the leisure reading behavior of college undergraduates, who have only recently reached the age of majority, the OU sample was also presented with a list of Young Adult fiction authors. The YAFT includes 108 names of authors who have written either a bestselling YA novel, or at least three YA novels, and have not written for adults. Author names that had zero variance or a negative or low ($r < .200$) corrected item-total correlation were dropped (details in Appendix B). See Table 12 for descriptive statistics and internal consistency reliability for all author recognition tests.

Nonfiction exposure. Lifetime exposure to nonfiction was measured with the nonfiction section of Mar and colleagues (2006) adaptation of Stanovich and West's (1989) ART. The ART-M includes 50 names of nonfiction authors; Mar et al. reported internal consistency reliability of $r_{\alpha} = .90$. Black and Barnes (in preparation) found lower reliability of $r_{\alpha} = .78$, possibly due to outdated author names. The instrument was adapted by eliminating authors who also write fiction, adding best-selling narrative

Table 12

Internal consistency reliability, mean, standard deviation, and range for all author checklists used to assess reading exposure.

	Source	α	*M*	*SD*	Range
Undergraduate sample					
Young Adult Fiction	Black & Barnes	.94	4.46	5.59	52
Classics	Black et al., 2017	.83	4.46	3.25	14
Contemporary Literary	Black et al., 2017	.72	0.31	0.76	7
Fantasy[a]	Black et al., 2017	.84	0.10	0.47	7
Historical[a]	Black et al., 2017	.84	0.10	0.38	4
Horror[a]	Black et al., 2017	.84	0.11	0.45	5
Mystery/Thriller[a]	Black et al., 2017	.73	0.25	0.72	9
Romance[a]	Black et al., 2017	.79	0.22	0.72	7
Science Fiction[a]	Black et al., 2017	.82	0.19	0.65	6
Nonfiction	Mar et al., 2006	.90	0.82	1.72	19
Narrative nonfiction	Self-developed	.73	0.11	0.40	3
Web Sample					
Classics	Black et al., 2017	.94	8.33	4.85	15
Contemporary Literary	Black et al., 2017	.92	2.69	3.79	14
Fantasy	Black et al., 2017	.88	3.39	3.42	13
Historical [a]	Black et al., 2017	.75	1.01	1.63	11
Horror [a]	Black et al., 2017	.63	0.62	1.13	9
Mystery/Thriller	Black et al., 2017	.88	3.71	3.52	15
Romance	Black et al., 2017	.86	1.78	2.56	14
Science Fiction	Black et al., 2017	.89	2.32	3.10	13
Nonfiction	Mar et al., 2006	.93	5.13	6.08	31
Narrative nonfiction	Self-developed	.66	0.44	0.91	5

Note. [a]Author names with zero variance or corrected item-total correlations that were negative or less than .150 were not included. All variables but Classics in the Web sample were positively skewed.

nonfiction authors from the last five years, and discarding the ten "Business" authors, whom few people recognized in recent data collections (Black & Barnes, unpublished data). Science, psychology, philosophy, sociopolitical commentary, and self-help books may discuss morally relevant themes and were therefore maintained as examples of non-narrative fiction. Author names were dropped as necessary according to the criteria detailed above for fiction.

Data Analyses

All hypotheses addressing the relationship of familiarity with overall lifetime exposure to fiction as well as familiarity with separate genres were tested using independent samples *t*-tests (choice of conflicted vs. unconflicted protagonist). The association of overall moral character judgment and reading exposure was tested with Spearman's rho (author recognition variables were transformed prior to correlational analyses). As with Study 2, alpha level for *a priori* hypotheses were $p < .05$; all *post hoc* comparisons used $p < .01$.

Results

Preliminary Analyses.

As in Study 2, I tested for an interaction between vignette (A vs B) in the Purity domain and moral character judgment (conflicted vs. unconflicted) for each outcome variable specified in the hypotheses. There were two signification interactions: Nonfiction ($F(1, 437) = 5.92$, $p = .015$, $\eta_p^2 = .013$); and Narrative Nonfiction ($F(1, 437) = 9.96$, $p = .002$, $\eta_p^2 = .022$). For all other genres the interactions were not significant, and the directions of the relationships did not differ across vignettes. In the undergraduate sample, women recognized more YA authors ($p < .001$, $d = 0.61$) and

Mystery/Thriller authors (p = .001, d= 0.30). In the Web sample, women recognized more historical fiction authors (p = .006, d = 0.45) and Romance authors (p < .001, d= 0.71). There were no other gender differences.

Primary Analyses

Hypotheses. I had expected that, across domains, greater familiarity with Romance and Mystery/Thriller authors would be associated with an increased tendency to prefer the unconflicted character; this hypothesis was not confirmed. Participants who recognized more Romance authors did find the unconflicted protagonist more moral in the care domain (undergraduate sample; $t(245) = 2.27$, $p = .024$, $d = 0.23$) and in the Fairness domain (Web sample; $t_{adj.}(99) = 3.15$, $p = .002$, $d = 0.46$), but for Mystery/Thriller, those who preferred the conflicted protagonist tended to recognize more authors, and the differences were not statistically significant (ps > .05). On the other hand, I had expected familiarity with contemporary literary, fantasy, and science fiction authors would be associated with preferences for the conflicted character across domains; this was only partially confirmed. Participants who recognized more Contemporary Literary, Fantasy, or Science Fiction found the conflicted protagonist more moral. However, differences were only statistically significant for Literary Fiction in the Loyalty domain for the Web sample, Fantasy in the Loyalty domain for both samples, and Science Fiction in the Loyalty and Purity domains in the Web sample. See Tables 13 (undergraduate) and 14 (Web) for details of all comparisons where p < .10.

Table 13

Undergraduate sample. Comparisons between those who preferred the conflicted vs. the unconflicted protagonists in good outcome vignettes for reading exposure; only comparisons with p*-values < .10 included.*

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	t	df	p	d
Care								
Romance	73	322	0.11 (0.36)	0.25 (0.77)	2.27	245[a]	.024	-0.23
Fairness								
Classics	53	342	3.75 (2.88)	4.56 (3.30)	1.69	393	.092	-0.26
Authority								
Classics	104	291	5.18 (3.21)	4.20 (3.23)	2.68	393	.008	0.31
Literary	104	291	0.46 (0.93)	0.26 (0.69)	2.31	393	.021	0.24
Loyalty								
Fantasy	132	263	0.05 (0.24)	0.13 (0.54)	2.01	388[a]	.046	-0.19
Historical	132	263	0.05 (0.26)	0.12 (0.43)	1.88	380[a]	.061	-0.18
Purity								
Narrative nonfiction								
Vignette A	60	160	0.10 (0.35)	0.13 (0.39)	0.54	218	.588	-0.08
Vignette B	42	179	0.31 (0.78)	0.06 (0.25)	2.08	43[a]	.043	0.44
Nonfiction								
Vignette A	60	160	0.52 (1.03)	1.06 (2.23)	1.82	218	.070	-0.31
Vignette B	42	179	1.05 (2.19)	0.64 (1.12)	1.71	219	.089	0.23
Cheating								
Classics	342	25	4.75 (3.28)	3.60 (2.22)	1.72	365	.087	0.41
Nonfiction	342	25	0.85 (1.72)	0.16 (0.47)	5.12	87[a]	< .001	0.55
Degradation								
YA Fiction	333	33	4.80 (5.89)	2.33 (2.19)	2.39	364	.018	0.55
Classics	333	33	4.84 (3.26)	2.97 (2.34)	3.21	364	.001	0.66
Narrative nonfiction	333	33	0.13 (0.41)	0.03 (0.17)	2.53	75[a]	.013	0.30

Note. [a]Adjusted for unequal variance (Levene's test $p < .01$).

Table 14

Web sample. Comparisons between those who preferred the conflicted vs. the unconflicted protagonists in good outcome vignettes for reading exposure; only comparisons with p*-values < .10 included.*

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	*t*	*df*	*p*	*d*
Care								
Classics	27	150	10.56(4.16)	8.37 (4.53)	2.33	175	.021	0.50
Historical	27	150	1.56 (1.97)	0.86 (1.35)	2.29	175	.023	0.41
Mystery	27	150	4.81 (3.80)	3.57 (3.35)	1.74	175	.084	0.35
Narrative nonfiction	27	150	0.78 (1.15)	0.39 (0.79)	2.19	175	.030	0.39
Fairness								
Romance	26	150	0.96 (0.96)	1.85 (2.56)	3.15	99[a]	.002	**-0.46**
Authority								
Classics	63	114	10.24(4.15)	7.86 (4.53)	3.45	175	.001	0.55
Literary	63	114	3.52 (3.99)	2.44 (3.63)	1.84	175	.068	0.28
Historical	63	114	1.37 (1.70)	0.75 (1.29)	2.52	102[a]	.013	0.41
Mystery	63	114	4.44 (3.50)	3.39 (3.36)	1.98	175	.050	0.31
Romance	63	114	2.14 (2.35)	1.49 (2.41)	1.74	175	.084	0.27
Narrative nonfiction	63	114	0.68 (1.01)	0.32 (0.74)	2.52	100[a]	.013	0.41
Loyalty								
Classics	83	93	9.90 (4.23)	7.61 (4.56)	3.44	174	.001	0.52
Literary	83	93	3.52 (4.02)	2.22 (3.49)	2.28	164[a]	.024	0.35
Fantasy	83	93	4.18 (3.52)	2.94 (2.97)	2.54	174	.012	0.38
Science Fiction	83	93	3.12 (3.37)	1.83 (2.73)	2.81	174	.006	0.42
Narrative nonfiction	83	93	0.59 (0.99)	0.32 (0.72)	2.06	174	.040	0.31
Nonfiction	83	93	6.88 (6.50)	4.14 (5.33)	3.07	174	.002	0.46
Purity								
Classics	71	105	9.48 (4.36)	8.16 (4.61)	1.90	174	.059	0.29
Literary	71	105	3.48 (4.20)	2.39 (3.44)	1.81	130[a]	.073	0.28
Historical	71	105	1.20 (1.61)	0.81 (1.37)	1.72	174	.088	0.26
Science Fiction	71	105	3.04 (3.28)	2.03 (2.93)	2.15	174	.033	0.33
Narrative nonfiction	71	105	0.59 (1.05)	0.35 (0.71)	1.81	174	.072	0.27
Nonfiction	71	105	6.82 (6.45)	4.50 (5.60)	2.54	174	.012	0.38

Note. [a]Adjusted for unequal variance (Levene's test $p < .01$).

Research questions. The relationship of moral character judgment and other genres (including nonfiction and narrative nonfiction) was tested, but no hypotheses had been made. In the Web sample, participants who preferred the conflicted protagonist recognized more Classics authors across domains. In the undergraduate sample, this was true for authority and Purity, but in the Fairness domain, those who found the unconflicted protagonist more moral recognized more Classics authors. Interestingly, two of the more reliable effects pertained to Historical fiction and narrative nonfiction: for both genres, participants who found the conflicted character more moral recognized more authors across domains (web sample). Recognition of nonfiction authors in general was associated with preference for the conflicted protagonist. Recognition of YA fiction authors was only related to moral character judgment in the Purity domain (bad outcomes), $t(362) = 2.39$, $p = .018$, $d = 0.55$). See Tables 13 and 14 for details.

In the undergraduate sample, overall moral character judgment[2] was correlated with Classics—people who recognized more Classis authors found the conflicted protagonist more moral in more domains, $r_s(392) = .11$, 95% CI [.01, .21], but the effect was not significant at the level set for exploratory analyses ($p = .023$). No other correlation approached significance (ps > .10). In the Web sample, overall moral character judgment was positively correlated with exposure to Classics, Science Fiction, Narrative Nonfiction, and general Nonfiction (rs ≥ .22, ps ≤ .004); see A8 in Appendix D for details.

[2] Choices summed across domains where 0 = participant found the unconflicted protagonist more moral in all five domains and 5 = participant found the conflicted protagonist more moral in all five domains.

Discussion

In general, the more authors participants recognized, the more likely they were to find the conflicted protagonist more moral. The only exception was the recognition of Romance authors, which was, as expected, associated with choosing the unconflicted protagonist as more moral, though only in two cases (Care domain for undergraduates and Fairness for Web sample). In general, the associations between moral character judgment and scores on the various author recognition tasks were not statistically significant; however, there was a clear pattern of results, and some surprises—including lack of effects—that merit mention and are addressed in the following paragraphs.

I had hypothesized that familiarity with Romance and Mystery/Thriller would be associated with a preference for the unconflicted protagonist across domains, and that familiarity with Contemporary Literary, Fantasy, and Science Fiction would relate to preferences for striving across domains. Romance, when it was significantly associated with moral judgment, was indeed positively associated with a preference for the unconflicted protagonist, but this was only in the domains of Care in the undergraduate sample and Fairness in the Web sample. Even given the little familiarity with authors demonstrated by undergraduates (Black & Barnes, unpublished data), clearly there is no consistent relationship between familiarity with Romance and moral character judgment, at least not in the types of situations represented by the vignettes targeting the moral foundations.

Similarly, there was no consistent pattern of results for Contemporary Literary, Fantasy, or Science fiction, even in the Web sample. Although participants who found moral striving more moral did tend to recognize more authors, the only domain in

which this was true for all three genres was Loyalty, perhaps because this was where participants were just as likely to prefer the conflicted protagonist. That there may also be something special about either the Loyalty domain, or the way it was operationalized here, is clear from Study 1, where it was the domain in which participants were most likely to find the conflicted protagonist more moral. In Study 3, moral character judgment in the Loyalty domain was related to familiarity with Classics and Nonfiction as well as the hypothesized Literary, Fantasy, and Science Fiction (for the Web sample).

The exploratory analyses testing for an association between reading and moral character judgment suggest at best a weak association with most genres. In general, participants in the Web sample who preferred the conflicted protagonist recognized more authors across domains (with the exception of Romance in the Fairness domain, as stated above). Greater recognition of nonfiction authors was also associated with a preference for those who overcome temptation: in both samples, where there was a significant difference, participants who found the conflicted protagonist more moral recognized more authors in narrative and general nonfiction.[3] Given the limited effects, and the positive correlation between openness to experience and reading exposure (Black & Barnes, in preparation; Mar et al., 2009), it may be that personality, more than familiarity with authors, is driving this effect, especially since openness to experience was the single most reliable predictor of moral judgment across domains.

Interestingly, familiarity with Young Adult fiction was not related to moral judgment in the positive outcome scenarios. In the bad outcome scenarios, it was only related to judgment in the Purity domain: participants who preferred the protagonist

[3] In the undergraduate sample, this was in the bad outcome scenarios.

who tried to do the right thing (the vast majority) recognized more YA authors. The YA Fiction test was developed to address the fact that undergraduates read very little in general, and even less adult fiction. The only authors they tend to recognize are those of classics, and these may have been encountered as part of a school curriculum. Unfortunately, even given 108 well-known YA authors, participants in this study recognized a mean of only 4.46: they do not appear to be big readers or YA fiction. As such, the conclusions we can draw from the lack of effects are limited. That said, it may be that for domain-specific morally relevant scenarios, other factors play a greater role than any preference for reading entails, particularly for college-age individuals.

General Discussion

The primary purpose of this research was to investigate the extent to which individuals value striving (vs. lack of temptation) when judging moral character in different circumstances. Prior research suggested that adults, unlike children, found children who had to overcome temptation to do the right thing more moral that those who did not have to resist temptation (Starmans & Bloom, 2016). The premise of this investigation was that moral character judgment would depend on the circumstances: specifically, I hypothesized that preferences for striving would vary across the five moral domains described by Moral Foundations Theory (Haidt, 2007; Haidt & Graham, 2007; Haidt & Joseph, 2007). Study 1 tested for differences in moral character judgment—whether people believe striving or lack of temptation more moral—between moral domains. Study 2 investigated the association of moral character judgment with individual differences in personality, morality, need for cognition, and ambiguity tolerance. Study 3 explored potential relationships with reading exposure. All three

studies employed two separate samples: college undergraduates and adults recruited online.

Although the results suggest that moral judgment *does* vary across domain, the variation was not as expected: in all domains, participants found lack of temptation more moral, and, unexpectedly, this preference was strongest in the individualizing domains of Care and Fairness. Interestingly, individual differences in personality and morally relevant constructs were not, on the whole, related to moral character judgment; the exceptions were Openness to Experience, the binding foundations of Respect for Authority, Loyalty, and Purity, and Imaginative Resistance. Given the effects of Openness and Imaginative Resistance, it was reasonable to expect an association between moral character judgment and reading (Black & Barnes, 2017; Djikic et al., 2013; Mar et al., 2009); surprisingly, evidence was limited, although in general, greater familiarity with authors was related to the belief that moral striving was more moral. This was particularly interesting in light of the overwhelming tendency for participants to find the unconflicted protagonist more moral in all moral domains.

The most important takeaway from this research is that, when asked to judge moral character in a variety of situations, people tend to find unhesitating adherence to moral norms preferable to striving (successfully) to overcome temptation. These results are in contrast to those reported by Starmans and Bloom (2016), who found that adult participants judged people who had to strive to do the right thing more moral than those who were not tempted. Starmans and Bloom reasoned that adults were Kantians in that they valued the effort exerted to be moral, in contrast to the children in their sample, who in preferring the unconflicted protagonists acted as virtue theorists. The results of

the current research suggest that adults too may be virtue theorists when it comes to judging other adults, rather than children. This may be true, but the argument for Kantian deontology in adults based on the results of Starmans and Bloom's research may also be flawed. Virtue theory does not suppose that children are born virtuous in all ways. Rather, although children may be born with some 'natural virtues,' it is only after the acquisition of habit through virtuous practice in childhood and practical wisdom through reasoning in adulthood that people fully possess virtues (Aristotle, Nicomachean Ethics VI). Adults in Starmans and Bloom's studies (and in the current research, for the vignette adapted from their study), found *children* who overcame temptation to do the right thing more moral than those who were not tempted. In the current investigation, adults were judging *adults*, who had, presumably, had many years to recognize and practice virtue. The vignettes used in this research presented but a snapshot of the protagonists' lives that participants could take as they wished. They could have understood the actions of the unconflicted (and not tempted) protagonists to reflect a lifetime of recognizing temptation, overcoming it, and building the moral character necessary to act without hesitation.

It is important to emphasize that despite the predominant preference for unconflicted moral decision-making, there *were* significant differences in judgment across domains. The fact that it was precisely in the binding domains where participants were most likely to disagree (and prefer striving) was unexpected, fascinating, and may be due to differences in values inherent in the association of political orientation and Moral Foundations Theory (Frimer et al., 2013; Graham et al., 2009). In this research, *post hoc* analyses revealed lack of independence between moral

judgment and politics in the binding domains. However, not all the differences can be explained by politics (in the domains of Care and Fairness, for example, there was much more agreement in these samples).

That the preference for learned virtue was strongest in the domains of Care and Fairness, both of which are pertinent to most people's daily lives and are likely to provide moral challenges on a regular basis, further implies that adults too may be virtue theorists: we expect people to have a lot of practice being kind and fair. It could also reflect the fact that the importance of moral concerns that matter to everyone, regardless of political orientation (Frimer et al., 2013; Graham et al., 2009). In light of Moral Foundations theory and the current results, an exploration of the association of politics and moral character judgment seems indicated. That said, a more *general* attempt to understand how people judge moral character would be better made without limiting situations to domain-specific situations. In real life, judgment is much more complicated, as people must process information not only in the immediate scenario, but also from their prior knowledge of participants in it and unconscious biases (e.g., Effron, Miller, & Monin, 2012; Weiner, 1995). In this research, the fact that the vignettes targeted specific domains with precise actions may have provided information about moral relevance that would otherwise be part of the overall interaction between judge (of moral character) and persons being judged. If this is the case, then the fact that individual differences in the MFT binding domains of Respect for Authority, Loyalty, and Purity were, with Openness to Experience, the most reliable predictors of moral character judgment, may partly reflect research design.

Studies 2 and 3, which were intended to explore the association of individual differences in potentially related constructs and the effect of reading exposure, shed very little light on what contributes to character judgment. The association of scores on the MFQ Authority, Loyalty, and Purity scales was interesting, but to some degree simply a validation of choice of stimuli and Moral Foundations Theory. More informative was the relationships between Openness to Experience and moral character judgment. The fact that greater openness was associated with the tendency to find the conflicted protagonists more moral in all domains may reflect a willingness to accept fallibility and the potential for learning and moral growth, particularly given that openness to experience has been associated with critical thinking (Facione et al., 1995) intellectual humility (Davis et al., 2015). Intellectual humility has been defined as attentiveness to and mindfulness of one's own weaknesses (Baehr, 2013); in the context of moral judgment, it implies the willingness to consider different options, even those that may at first glance appear immoral. As such, people who find overcoming temptation more moral may be assuming that the primary difference between those that do so and those that purportedly simply automatically act morally is honesty and humility. Intellectual humility was not measured in Study 2, but it may be part of what drives the effect of openness to experience.

Openness to experience has also been associated with lifetime fiction exposure (Mar et al., 2009) as well as with creating complex fictional characters (Maslej, Oatley, & Mar, 2017). As such, it is not surprising to find that people who found the conflicted character as more moral tended to recognize more author in most genres (the exception was for Romance authors, in the Care and Fairness domains, though this differed

between samples). However, in general the associations between moral character judgment and familiarity with authors were not statistically significant, although trends for the most part were in alignment with expectations. Such results may arise both from choice of stimuli, theoretical focus (Moral Foundations Theory, when moral domain does not, in fact, seem to matter as much as expected), or samples used (effects were stronger in the adult sample). Given the importance of identification with characters to fictional engagement, that people may judge fictional characters in the same way they judge real people (Stueber, 2011), and that the law may treat fictional characters similarly to real people (see Kurtz, 2013; Schreyer, 2015), future research is merited to verify these results.

Limitations and Future Directions

Although these results provide a clear answer to the main question of whether the preference for moral striving (Starmans & Bloom, 2016) held across the five moral domains (Graham et al., 2009, 2012; Haidt, 2007)—no, they do not—many questions remain unanswered. These studies offer little clear evidence regarding what is driving the overall tendency to find unconflicted people more moral, and why this preference is more pronounced in some domains. Although the results suggest many avenues for future research, there are several limitations in the present studies that may have affected the results and as such limit the conclusions that can be drawn. First I will address the standard limitations to collecting data that occurred in this study, followed by the more substantial issue of the vignettes used as stimuli. Next, I will offer some suggestions for future research.

First, data collection suffered from certain limitations. As is typical, both samples were majority female. There were no differences in moral judgment across gender in any of the domains (*p*s > .200), and adding gender to the analyses of predictor variables with significant gender differences did not change the results (using logistic regression). However, a more gender-balanced sample would increase the power to find any potential gender effects. What is more, all data was collected online, thus limiting control of the survey-taking environment (but see Hardre, Crowson, & Xie, 2010). Undergraduates, who participated to meet course requirements, are especially likely to pay insufficient attention to the task at hand; here, only 68.6% of the college sample completed the entire study taking sufficient time and passing manipulation checks. In addition, internal consistency reliability was low for the Moral Foundations Questionnaire, particularly in the undergraduate sample; items were dropped from both the Care and Fairness scales to improve reliability. Such low alphas are not untypical of the MFQ, but its use was deemed essential to the purposes of this study. However, future research would benefit from more accurate measurement of the extent to which participants value the distinct foundations, perhaps through use of additional items or a different form of assessment (e.g., Frimer et al., 2013). A final limitation of data collection pertains to Study 3, the purpose of which was to assess the association of book genres with moral judgment. Neither sample targeted avid readers, and as such, mean author recognition was low across genres. Because hypotheses included the prediction that the association of moral judgment and reading exposure would vary across domains, the lack of familiarity with authors limits the extent to which any claims can be made about the (primarily null in any case) results. Future research

targeting reading audiences, and potentially including different forms of media (e.g., television; see Barnes & Black, 2015) might reveal different relationships.

Second, and more importantly, the stimuli used to assess moral character judgment may have predisposed participants to prefer lack of moral conflict. The vignettes were written to target each domain while at the same time avoiding potential confounds with the other four domains. For example, a story written to target authority could not include family—parents are typical authority figures—because family is most pertinent to the loyalty domain, which is ultimately based on ingroup behavior (see Haidt & Joseph, 2004, 2007). Two sets of four matching vignettes (conflicted vs. unconflicted protagonist; good vs. bad outcomes) were prepared for each domain, and participants were randomly assigned within each domain. Two separate pilot studies were carried out to develop the final version (and even then, there were differences in responding within domains in the two current samples), with feedback given at each stage, but there are still slight differences between conflicted and unconflicted vignettes: the former are longer in general, for example. The forced choice nature of the task, based on Starmans and Bloom (2016) may also have biased responding by inclining participants to judge this action as reflective of a lifetime of learning.

Such reasoning could explain the strength of the preference for lack of conflict in the Care and Fairness domains: we all encounter moments where we are tempted to act unkindly or unfairly on a regular basis, starting in childhood (whereas the opportunity to change jobs or sports teams does not happen frequently if at all). Alternatively, it could be that the cost of acting morally in the Care and Fairness domains (not going to a party or teasing someone; not stealing small amounts of cash

that no one would know about) was so small that participants did not see any real moral challenge in the situations. Compared with the vignettes targeting the Loyalty domain, where remaining loyal demanded giving up greater long-term advantages (career advancement in sports or business), these sacrifices were small. Perhaps not coincidentally, participants were much more likely to find the conflicted protagonist more moral in the Loyalty vignettes.

It may be that targeting the moral domains made it easier for participants to judge character by providing relevant information indirectly. If, as Moral Foundations Theory proposes, people base their judgments on the extent to which a given act reflects the moral domains, restricting the vignettes to target a single domain might simplify decision-making: the violations are clear and do not conflict with other moral domains. This may be especially true if the politics that go hand in hand with MFT influence character judgment, as is suggested by the association between political orientation and moral character judgment found in Study 1. This represents an important potential confound inherent in using vignettes that target moral domains that are known to reflect political bent; more politically neutral stimuli may provide more information about the contributing effects of moral constructs unrelated to politics (e.g., moral agency) as well as fiction and nonfiction exposure. Although Frimer et al. (2013) found more similarities than differences in judgment, politics did affect their results, and MFT was in many ways designed precisely to identify political orientation. The purpose of this research was not to investigate the extent to which politics may affect moral character, but the results clearly suggest that it may be a fascinating direction for future research.

To approximate real life in research, it may be necessary to use more complex scenarios that include threats to more than one domain. Vignettes that describe the life trajectory of a person (e.g., proposed as a moral exemplar) may give a better picture of preferences for striving, as well as clarifying the nature of the current results: are participants assuming virtue that has developed over years of striving, or are they imagining someone who was born virtuous (as the children in the Starmans and Bloom studies may have done)? Moral judgment based on a more complete picture might also relate to individual differences in the variables tested here, such as integrity, need for cognition, and moral agency.

Future directions. The most intriguing result of this research was the failure to replicate Starmans and Bloom (2016). Starmans has claimed to have replicated their results using vignettes that feature adult protagonists (private communication); as such, an important question is why, in Study 1, results revealed an overwhelming tendency to find lack of temptation more moral. Besides developing vignettes that target different aspects of morally relevant behavior, there are several avenues for future research that could address this question. To start with, the effect of presenting longer, more complete pictures of protagonists' lives needs to be tested. For example, participants could be asked to nominate one of two moral exemplars for a prize based on life-narratives that revealed either the long-term (and successful) effort to overcome temptation or an inborn goodness tracing back to childhood.

Further research is also needed to replicate the results reported here in studies that target specific effects. Many tests were run, increasing the risk of Type 1 error even when effects seem strong. For example, all analyses regarding political orientation

were exploratory, and need to be repeated, ideally with pre-registered studies, to confirm the results. Rather than using one large sample, future studies should test limited numbers of hypothesis in well-defined, simple designs based on the results reported here.

Study 3 tested the effects of reading exposure, but conclusions are limited by data collection that did not target readers; a better estimate of the effects of genre exposure would be obtained with samples of frequent readers. It would also be interesting to test the relationship of television exposure and moral character judgment, given that people spend more time watching television than they do reading. Another possibility is adding a redemption condition—a story in which the protagonist makes up for past wrongdoing by an extreme example of moral goodness. The extent to which people value redemption stories might be related to exposure to fiction, especially given the tendency of those who recognized more authors to appreciate moral striving in Study 3.

Conclusions

To conclude, the results of this investigation suggest that moral character judgment—and particularly, the view of temptation therein—varies across domains. Nonetheless, across domains, there was still a clear preference for lack of moral conflict, in direct contrast to past research (Starmans & Bloom, 2016). Openness to experience was the most reliable predictor of moral character judgment, once other personality factors were controlled. Scores on the MFQ scales of Respect for Authority, Loyalty, and Purity were most likely to relate to moral character judgment, whereas other aspects of morality, such as integrity and moral agency, had little effect.

Imaginative resistance, on the other hand, was associated with preferences for the unconflicted character in general, perhaps reflecting a fear of moral contagion (Black & Barnes, 2017). Similarly, although the pattern of Study 3 results suggests that the more books people read, the more likely they are to find moral striving more admirable, further investigation would be necessary to confirm this tendency. Finally, it may be that politics plays a large part in moral character judgment, particularly when it comes to moral behavior pertaining to specific MFT domains. Though the nature of this research and study design limit the inferences one can make, the results suggest various avenues for future research. Different types of moral violations, set in scenarios that do not target the moral foundations, potentially using longer, more complex vignettes, have the potential to shed light on how people judge moral character.

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Appendix A: Vignettes

Sample

Unconflicted helping:

Dave's sister lost her favorite ball. She has been looking really hard, but she still hasn't found it. So she asked Dave to help her look for it. Helping people is the right thing to do. And Dave wants to help his brother look for her ball. Dave's friends are playing right outside. But Dave doesn't want to go play with his friends right now. Dave doesn't like playing outside. Dave wants to help his sister find her ball. So Dave helped his sister look for the ball. **It was really easy for Dave to help his sister** because he didn't want to play with his friends at all. So Dave helped his sister.

Conflicted helping:

Matt's sister lost her favorite teddy bear. She has been looking really hard, but she still hasn't found it. So she asked Matt to help her look for it. Helping people is the right thing to do. And Matt wants to help his sister look for her bear. But Matt's friends are playing right outside. Even though he wants to help, Matt also really wants to go play with his friends right now, and not help his sister find her teddy bear. Part of Matt wants to help his sister, but part of him wants to go outside and play. So Matt helped his sister look for the teddy bear. **It was really hard for Matt to help his sister** because he wanted to play outside with his friends. But Matt helped his sister anyway.

Care/Harm

Care Vignette A: Emotional Support

Unconflicted Care:

Pat was about to leave the house to go to a party when the phone rang. It was Pat's cousin, Brett. Normally, Pat would ignore the phone and go to the party, but Brett had recently been diagnosed with cancer and was going through a rough time, and Pat knew Brett relied on Pat's emotional support. Pat had really been looking forward to the party, but as soon as Brett called, the party didn't seem nearly as much fun. Talking to Brett would be the right thing to do, and Pat had no hesitation in picking up the phone. There would be other parties. Pat picked up the phone and spent the next hour listening to Brett and offering support.

Conflicted Care:

Sam was about to leave the house to go to a party when the phone rang. It was Sam's cousin, Alex. Normally, Sam would ignore the phone and go to the party, but Alex had recently been diagnosed with cancer and was going through a rough time, and Sam knew Alex relied on Sam's emotional support. Sam had really been looking forward to the party, and when Alex called, Sam didn't want to pick up the phone. Sam thought about how much fun the party would be. Talking to Alex would be the right thing to do, but Sam really didn't want to miss the party. Sam was really tempted to forget Alex and go to the party, but in the end picked up the phone and spent the next hour listening to Alex and offering support.

Unconflicted Harm:

Pat was about to leave the house to go to a party when the phone rang. It was Pat's cousin, Brett. Brett had recently been diagnosed with cancer and was going through a rough time, and Pat knew Brett relied on Pat's emotional support. Pat knew that the right thing to do was pick up the phone, but the party was going to be a lot of fun. Talking to Brett might be the right thing to do, but Pat didn't want to miss out on the fun at the party. Pat ignored the phone and hurried out to go to the party.

Conflicted Harm:

Sam was about to leave the house to go to a party when the phone rang. It was Sam's cousin, Alex. Alex had recently been diagnosed with cancer and was going through a rough time, and Sam knew Alex relied on Sam's emotional support. Sam had really been looking forward to the party, and when Alex called, Sam didn't want to pick up the phone. Sam thought about how much fun the party would be, and how Alex would want to talk for hours. Talking to Alex would be the right thing to do, but Sam didn't want to miss the party. Sam felt bad about it, but after an internal debate, ignored the phone and hurried out to go to the party.

Care Vignette B: Not teasing

Unconflicted Care:

Every Monday, Skyler went to lunch with fellow students. Sometimes Frankie came with the group. No one really liked Frankie, because Frankie talked all the time and had no sense of humor; it was really easy to poke fun at Frankie, who then felt hurt and would leave the group. Today was no different; Frankie talked too much, and Skyler saw many opportunities to tease Frankie. No one even wanted Frankie to be

there. However, Skyler knew it would be wrong to make Frankie feel bad just so the rest of them could get a good laugh. Skyler wasn't tempted to make fun of Frankie, and was quick to distract anyone else who looked like they might be going to say something cruel.

Conflicted Care:

Every Monday, Dale went to lunch with fellow students. Sometimes Lou came with the group. No one really liked Lou, because Lou talked all the time and had no sense of humor; it was really easy to poke fun at Lou, who then felt hurt and would leave the group. Today was no different; Lou talked too much, and Dale saw many opportunities to tease Lou. No one even wanted Lou to be there, and Dale was getting really sick of being talked over. It was really tempting to join with everyone in teasing Lou , even though Dale knew it would be wrong. Despite the strong temptation, Dale didn’t make fun of Lou, and was quick to distract others who might be going to say something cruel.

Unconflicted Harm:

Every Monday, Skyler went to lunch with fellow students. Sometimes Frankie came with the group. No one really liked Frankie, because Frankie talked all the time and had no sense of humor; it was really easy to poke fun at Frankie, who then felt hurt and would leave the group. Today was no different; Frankie talked too much, and Skyler was getting really sick of being talked over. Skyler made fun of Frankie mercilessly, laughing loudly whenever anyone else said something cruel.

Conflicted Harm:

Every Monday, Dale went to lunch with fellow students. Sometimes Lou came with the group. No one really liked Lou, because Lou talked all the time and had no sense of humor; it was really easy to poke fun at Lou, who then felt hurt and would leave the group. Today was no different; Lou talked too much, and Dale was getting really sick of being talked over. It was really tempting to join with everyone in teasing Lou, even though Dale knew it would be wrong to make Lou feel bad. Dale was conflicted and tried to resist the temptation to join in on the teasing, but ultimately made fun of Lou anyway, laughing guiltily whenever anyone else said something cruel.

Fairness/cheating

Fairness Vignette A: Debate team

Unconflicted Fairness:

Rowan's debate team was going to Washington, D. C. for a national contest, and they had been fundraising all semester. Rowan was the treasurer and had to manage the account and divide up the money between the 7 team members. After calculating their net profit and splitting it amongst them, Rowan reported in a group email that they each had $247.20, and put seven checks in the mail. Later, Rowan discovered $23 in cash that hadn't been added to the total. It would be easiest just to keep the money, but Rowan knew that would be wrong. Without hesitation, Rowan went to the bank for the change required to pay each person $3.28.

Conflicted Fairness:

Elliott's debate team was going to Washington, D. C. for a national contest, and they had been fundraising all semester. Elliott was the treasurer and had to manage the

account and divide up the money between the 7 team members. After calculating their net profit and splitting it amongst them, Elliott reported in a group email that they each had $247.20, and put seven checks in the mail. Later, Elliott discovered $23 in cash that hadn't been added to the total Even though Elliott knew it would be wrong, it was very tempting to just pocket the money. Elliott came very close to doing just that, but after an internal struggle, went to the bank for the change required to pay each person $3.28.

Unconflicted cheating:

Rowan's debate team was going to Washington, D. C. for a national contest, and they had been fundraising all semester. Rowan was the treasurer and had to manage the account and divide up the money between the 7 team members. After calculating their net profit and splitting it amongst them, Rowan reported in a group email that they each had $247.20, and put seven checks in the mail. Later, Rowan discovered $23 in cash that hadn't been added to the total. It would be easiest just to keep the money, and Rowan already had some ideas about how to spend it. Rather than going to the bank for the change required to pay each person $3.28, Rowan kept the cash.

Conflicted cheating:

Elliott's debate team was going to Washington, D. C. for a national contest, and they had been fundraising all semester. Elliott was the treasurer and had to manage the account and divide up the money between the 7 team members. After calculating their net profit and splitting it amongst them, Elliott reported in a group email that they each had $247.20, and put seven checks in the mail. Later, Elliott discovered $23 in cash that hadn't been added to the total. Even though Elliott knew it would be wrong, it was very tempting to just pocket the money. Elliott debated being more transparent, but rather

than going to the bank for the change required to pay each person $3.28, Elliott kept the cash, feeling slightly guilty.

Fairness Vignette B: Lemonade

Unconflicted Fairness:

Dakota and four friends were the teenage winners in their town's Lemonade Day contest. They had planned to donate 50% of their net profit to charity, and split the rest between themselves. They made a total of $219.10. Dakota, who had volunteered to sort out the money, set aside half to donate to their local pet rescue. Splitting the remaining $109.55 between the five friends would mean giving $21.91 to each. It would be easier to give everyone $20. Dakota's siblings suggested that doing the accounting was worth $9.55, but, even after spending more than an hour adding up the expenses and counting money, Dakota knew that wouldn't be fair and without hesitation decided to add $9.55 to the pet rescue envelope.

Conflicted Fairness:

Addison and four friends were the teenage winners in their town's Lemonade Day contest. They had planned to donate 50% of their net profit to charity, and split the rest between themselves. They made a total of $219.10. Addison, who had volunteered to sort out the money, set aside half to donate to their local pet rescue. Splitting the remaining $109.55 between the five friends would mean giving $21.91 to each. It would be easier to give everyone $20. Addison's siblings suggested that doing the accounting was worth $9.55, and, after spending more than an hour adding up the expenses and counting money, Addison was really tempted to keep the money without telling the

others. However, after an inner struggle, Addison decided that wouldn't be fair and added $9.55 to the pet rescue envelope.

Unconflicted cheating:

Dakota and four friends were the teenage winners in their town's Lemonade Day contest. They had planned to donate 50% of their net profit to charity, and split the rest between themselves. They made a total of $219.10. Dakota, who had reluctantly volunteered to sort out the money, set aside half to donate to their local pet rescue. Splitting the remaining $109.55 between the five friends would mean giving $21.91 to each. It would be easier to give everyone $20. Dakota's siblings suggested that doing the accounting was worth $9.55, and after spending more than an hour adding up the expenses and counting money, Dakota decided to keep the money without telling the others. Dakota kept the $9.55 and divided the rest into $20 each.

Conflicted cheating:

Addison and four friends were the teenage winners in their town's Lemonade Day contest. They had planned to donate 50% of their net profit to charity, and split the rest between themselves. They made a total of $219.10. Addison, who had reluctantly volunteered to sort out the money, set aside half to donate to their local pet rescue. Splitting the remaining $109.55 between the five friends would mean giving $21.91 to each. It would be easier to give everyone $20. Addison's siblings suggested that doing the accounting was worth $9.55, and, after spending more than an hour adding up the expenses and counting money, Addison was really tempted to keep the money without telling the others. Addison debated the options and guiltily decided it was justified to keep the $9.55 and divide the rest into $20 each.

Loyalty/betrayal

Loyalty Vignette A: Family Business

Conflicted Loyalty:

Devin had worked for the family company since graduating from college, performing the job of chief marketing officer, although there was no official title. Over the years, Devin had built up a network that had helped to revitalize the family business and become essential to its functioning. Devin's skill had not gone unnoticed, and a major international corporation made an offer that was more than triple Devin's current salary. Devin was very tempted to take it: the new job offered more opportunities of promotion as well as better remuneration. However, family was more important than money, and Devin felt it would be a betrayal to leave. Devin went back and forth, weighing the costs and benefits of taking the new job, before reluctantly deciding to remain with the family company.

Unconflicted Loyalty

Bailey had worked for the family company since graduating from college, performing the job of chief marketing officer, although there was no official title. Over the years, Bailey had built up a network that had helped to revitalize the family business and become essential to its functioning. Bailey's skill had not gone unnoticed, and a major international corporation made an offer that was more than triple Bailey's current salary. However, although the new job offered more opportunities of promotion as well as better remuneration, Bailey was not tempted. Family was more important than money, and Bailey felt it would be a betrayal to leave. Bailey had no hesitation in turning down the job opportunity in order to remain with the family company.

Conflicted Betrayal:

Devin had worked for the family company since graduating from college, performing the job of chief marketing officer, although there was no official title. Over the years, Devin had built up a network that had helped to revitalize the family business and become essential to its functioning. Devin's skill had not gone unnoticed, and a major international corporation made an offer that was more than triple Devin's current salary. However, family was more important than money, and Devin felt it would be a betrayal to leave. Devin seriously considered remaining with the family company, but after weighing the costs and benefits of taking the new job, Devin reluctantly decided to accept the job offer.

Unconflicted Betrayal:

Bailey had worked for the family company since graduating from college, performing the job of chief marketing officer, although there was no official title. Over the years, Bailey had built up a network that had helped to revitalize the family business and become essential to its functioning. Bailey's skill had not gone unnoticed, and a major international corporation made an offer that was more than triple Bailey's current salary. The new job offered more opportunities of promotion as well as better remuneration, and Bailey knew it was an excellent career move. Family might be more important than money in some ways, but Bailey had no hesitation about accepting this wonderful job offer.

Loyalty Vignette B: Sports team

Conflicted Loyalty:

Taylor was a sophomore at University of Sigma and a key part of one of their school's most competitive teams when a rival school offered Taylor a scholarship as incentive to switch schools—and teams. The scholarship was good—since both Taylor's school and the rival were expensive private institutions—but what really tempted Taylor was the opportunity to play with a star team under an excellent coach. Taylor knew there would be a lot of opportunity to learn and improve. However, the University of Sigma team depended on Taylor, who had formed firm friendships and felt great respect for their own coach. After much deliberation, Taylor reluctantly decided to stay at Sigma.

Unconflicted Loyalty

Corey was a sophomore at University of Sigma and a key part of one of their school's most competitive teams when a rival school offered Corey a scholarship as incentive to switch schools—and teams. The scholarship was good—since both Corey's school and the rival were expensive private institutions—but Corey wasn't tempted by the money or the opportunity to play with a star team under an excellent coach, because the University of Sigma team depended on Corey. Corey had formed firm friendships and felt great respect for their own coach. Corey never even considered leaving Sigma.

Conflicted Betrayal:

Taylor was a sophomore at University of Sigma and a key part of one of their school's most competitive teams when a rival school offered Taylor a scholarship as

incentive to switch schools—and teams. The scholarship was good—since both Taylor's school and the rival were expensive private institutions—but Taylor felt conflicted about transferring. The University of Sigma team depended on Taylor, who had formed firm friendships and felt great respect for their own coach. However, Taylor was really tempted by the scholarship and the opportunity to play with a star team under an excellent coach. It was a tough decision, but in the end, Taylor decided to transfer to the rival school.

Unconflicted Betrayal:

Corey was a sophomore at University of Sigma and a key part of one of their school's most competitive teams when a rival school offered Corey a scholarship as incentive to switch schools—and teams. The scholarship was good—since both Corey's school and the rival were expensive private institutions—and Corey was delighted to receive the offer. The University of Sigma team depended on Corey, who had formed firm friendships and felt great respect for their own coach, but Corey was really excited by the scholarship and the opportunity to play with a star team under an excellent coach. It was an easy decision when Corey decided to transfer to the rival school.

Authority/subversion

Authority Vignette A: Red Light

Unconflicted Authority:

Jean was driving home at three o'clock in the morning and came to a stoplight at the top of a hill. Jean had to turn left, and the left arrow stayed red through an entire cycle of the lights. Jean could see for a mile in every direction: there was no one

around. Jean was tired of waiting, but did not want to run the red light. Even though no one would know about it, and it wouldn't put anyone in danger, Jean wasn't at all tempted to just turn left. Traffic laws existed for a reason. Jean decided to wait for a green light.

Conflicted Authority:

Kelly was driving home at three o'clock in the morning and came to a stoplight at the top of a hill. Kelly had to turn left, and the left arrow stayed red through an entire cycle of the lights. Kelly could see for a mile in every direction: there was no one around. Kelly was tired of waiting and thought about running the light. No one would know about it, and it wouldn't put anyone in danger. Kelly was really tempted to keep going. Nonetheless, Kelly knew that traffic laws were there for a reason, and after debating just turning left, Kelly decided to wait for a green light.

Unconflicted Subversion:

Jean was driving home at three o'clock in the morning and came to a stoplight at the top of a hill. Jean had to turn left, and the left arrow stayed red through an entire cycle of the lights. Jean could see for a mile in every direction: there was no one around. Jean was tired of waiting, and decided to run the red light. No one would know about it, and it wouldn't put anyone in danger. Jean drove through the intersection and went home.

Conflicted Subversion:

Kelly was driving home at three o'clock in the morning and came to a stoplight at the top of a hill. Kelly had to turn left, and the left arrow stayed red through an entire cycle of the lights. Kelly could see for a mile in every direction: there was no one

around. Kelly was tired of waiting, and thought about running the red light. No one would know about it, and it wouldn't put anyone in danger, but Kelly was conflicted. Traffic laws existed for a reason. But after an internal debate, Kelly drove through the intersection and went home.

Authority Vignette B: Cutting in Line

Unconflicted Authority:

Casey was renewing a license during lunchbreak. There was a long line, and Casey worried about getting back to work late. Other people were getting impatient; there was a break between two desks where a person could slip through and skip two loops of the line. A police officer had asked them to please respect the line, but Casey watched several more people slip through. Casey had no desire to skip the line. Waiting was the right thing to do, so Casey waited, even though that meant being late for a meeting at work.

Conflicted Authority:

Chris was renewing a license during lunchbreak. There was a long line, and Chris worried about getting back to work late. Other people were getting impatient; there was a break between two desks where a person could slip through and skip two loops of the line. A police officer had asked them to please respect the line, but Chris watched several people slip through. Chris was very tempted to do the same, but after an internal debate, Chris waited in line, even though that meant being late for a meeting at work.

Unconflicted Subversion:

Casey was renewing a license during lunchbreak. There was a long line, and Casey worried about getting back to work late. Other people were getting impatient; there was a break between two desks where a person could slip through and skip two loops of the line. A police officer had asked them to please respect the line, but Casey watched several more people slip through, and thought it would be silly to wait. As soon as the police officer left the room, Casey happily skipped the long loops and moved near the head of the line.

Conflicted Subversion:

Chris was renewing a license during lunchbreak. There was a long line, and Chris worried about getting back to work late. Other people were getting impatient; there was a break between two desks where a person could slip through and skip two loops of the line. A police officer had asked them to please respect the line, but Chris watched several people slip through. Chris knew that that cutting in front of people was unfair. Waiting would be the right thing to do, and Chris tried to resist the temptation to cut in front of other people. After a while, though, Chris decided to slip through the desks and skip most of the line. Chris felt bad, but didn't want to wait any longer.

Purity/degradation

Vignette A: Incest

Unconflicted Purity

Jules met Tristan their freshman year in college, and they were immediately attracted to each other. They shared the same taste in food, film, and sports, and they had three classes together. Over the course of the semester, they spent more and more

time together, and Jules went home with Tristan for Thanksgiving. Tristan's parents had been happy to have a guest, but they seemed shocked when they saw Jules and heard Jules's full name. After a brief private conversation, Tristan's parents revealed that Jules and Tristan were really half-siblings. Their budding sexual attraction was now taboo, but Tristan didn't care about taboos. Tristan wanted to continue the relationship. However, Jules was not at all tempted to continue the relationship and made it clear to Tristan that they could only be friends.

Conflicted Purity:

Jamie met Riley their freshman year in college and were immediately attracted to each other. They shared the same taste in food, film, and sports, and they had three classes together. Over the course of the semester, they spent more and more time together, and Jamie went home with Riley for Thanksgiving. Riley's parents had been happy to have a guest, but they seemed shocked when they saw Jamie and heard Jamie's full name. After a brief private conversation, Riley's parents revealed that Jamie and Riley were really half-siblings. Their budding sexual attraction was now taboo. Despite knowing they were siblings, Jamie still felt an intense sexual attraction to Riley, who thought taboos were foolish and wanted to continue the relationship. **Jamie also felt very tempted,** but after a great deal of internal debate, decided to tell Riley that they could only be friends.

Conflicted Degradation:

Jules met Tristan their freshman year in college and were immediately attracted to each other. They shared the same taste in food, film, and sports, and they had three classes together. Over the course of the semester, they spent more and more time

together, and Jules went home with Tristan for Thanksgiving. Tristan's parents had been happy to have a guest, but they seemed shocked when they saw Jules and heard Jules' full name. After a brief private conversation, Tristan's parents revealed that Jules and Tristan were really half-siblings. Their budding sexual attraction was now taboo, but Tristan didn't care about taboos. Tristan wanted to continue the relationship, and despite knowing they were siblings, Jules was also tempted. After a great deal of debate, **Jules decided to pursue the relationship, despite a lingering feeling of guilt**...

Unconflicted Degradation

Jamie met Riley their freshman year in college and they were immediately attracted to each other. They shared the same taste in food, film, and sports, and they had three classes together. Over the course of the semester, they spent more and more time together, and Jamie went home with Riley for Thanksgiving. Riley's parents had been happy to have a guest, but they seemed shocked when they saw Jamie and heard Jamie's full name. After a brief private conversation, Riley's parents revealed that Jamie and Riley were really half-siblings. Their budding sexual attraction was now taboo. Despite knowing they were siblings, **Jamie did not care if it was taboo and easily decided to continue the relationship**, with Riley's enthusiastic approval.

Vignette B: Cannibalism

Unconflicted Purity:

River and Micah were backpacking in the Sierra Nevada when an early snowstorm forced them to hide in a cave for three days. By the time the storm abated, they had run out of food, and they started back. The mountain was unrecognizable in

the snow, and they went down the wrong ridge. Micah slipped and fell several hundred feet down into a canyon, dying instantly. River reached Micah's body, but because of the snow, had no choice but to stay put and hope for rescue. Over the next several days, hunger pangs drove River to desperation. No matter how hungry River got**, River would not and could not consider eating Micah's body**. River nearly starved, but eventually was rescued.

Conflicted Purity:

Logan and Bobbie were backpacking in the Sierra Nevada when an early snowstorm forced them to hide in a cave for three days. By the time the storm abated, they had run out of food, and they started back. The mountain was unrecognizable in the snow, and they went down the wrong ridge. Bobbie slipped and fell several hundred feet down into a canyon, dying instantly. Logan reached Bobbie's body, but because of the snow, had no choice but to stay put and hope for rescue. Over the next several days, hunger pangs drove Logan to desperation. The hungrier Logan got, the more tempting it became to eat the only real source of food available: Bobbie's body. Logan agonized and nearly gave into temptation, but ultimately resisted and was eventually rescued.

Conflicted degradation:

Logan and Bobbie were backpacking in the Sierra Nevada when an early snowstorm forced them to hide in a cave for three days. By the time the storm abated, they had run out of food, and they started back. The mountain was unrecognizable in the snow, and they went down the wrong ridge. Bobbie slipped and fell several hundred feet down into a canyon, dying instantly. Logan reached Bobbie's body, but because of the snow, had no choice but to stay put and hope for rescue. Over the next several days,

hunger pangs drove Logan to desperation. The hungrier Logan got, the more tempting it became to eat the only real source of food available: Bobbie's body. Logan agonized, but ultimately gave into the temptation and decided to eat Bobbie's remains. Eventually, Logan was rescued.

Unconflicted degradation:

River and Micah were backpacking in the Sierra Nevada when an early snowstorm forced them to hide in a cave for three days. By the time the storm abated, they had run out of food, and they started back. The mountain was unrecognizable in the snow, and they went down the wrong ridge. Micah slipped and fell several hundred feet down into a canyon, dying instantly. River reached Micah's body, but because of the snow, had no choice but to stay put and hope for rescue. Over the next several days, hunger pangs drove River to desperation. Soon, River decided that the logical course of action was to eat the only real source of food available: Micah's body. Once the idea occurred to River, it was an easy decision. River decided to eat Micah's remains. Eventually, River was rescued.

Appendix B: Instrumentation

Moral Foundations Questionnaire (Graham et al., 2011)

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? (*not at all relevant, not very relevant, slightly relevant, somewhat relevant, very relevant, extremely relevant*):

Whether or not someone suffered emotionally

Whether or not some people were treated differently than others

Whether or not someone's action showed love for his or her country

Whether or not someone showed a lack of respect for authority

Whether or not someone violated standards of purity and decency

Whether or not someone was good at math (filler)

Whether or not someone cared for someone weak or vulnerable

Whether or not someone acted unfairly

Whether or not someone did something to betray his or her group

Whether or not someone conformed to the traditions of society

Whether or not someone did something disgusting

Whether or not someone was cruel

Whether or not someone was denied his or her rights

Whether or not someone showed a lack of loyalty

Whether or not an action caused chaos or disorder

Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement: (*strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, strongly agree*):

Compassion for those who are suffering is the most crucial virtue.

When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

I am proud of my country's history.

Respect for authority is something all children need to learn.

People should not do things that are disgusting, even if no one is harmed.

It is better to do good than to do bad. (filler)

One of the worst things a person could do is hurt a defenseless animal. (discarded)

Justice is the most important requirement for a society.

People should be loyal to their family members, even when they have done something wrong.

Men and women each have different roles to play in society.

I would call some acts wrong on the grounds that they are unnatural.

It can never be right to kill a human being. (discarded)

I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing. (discarded)

It is more important to be a team player than to express oneself.

If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

Chastity is an important and valuable virtue.

Big Five Inventory

(John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008):

How I am in general

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which **you agree or disagree with that statement.**

(*Strongly disagree* to *strongly agree*)

I am someone who…

Is talkative

Tends to find fault with others

Does a thorough job

Is depressed, blue

Is original, comes up with new ideas

Is reserved

Is helpful and unselfish with others

Can be somewhat careless

Is relaxed, handles stress well.

Is curious about many different things

Is full of energy

Starts quarrels with others

Is a reliable worker

Can be tense

Is ingenious, a deep thinker

Generates a lot of enthusiasm

Has a forgiving nature

Tends to be disorganized

Worries a lot

Has an active imagination

Tends to be quiet

Is generally trusting

Tends to be lazy

Is emotionally stable, not easily upset

Is inventive

Has an assertive personality

Can be cold and aloof

Perseveres until the task is finished

Can be moody

Values artistic, aesthetic experiences

Is sometimes shy, inhibited

Is considerate and kind to almost everyone

Does things efficiently

Remains calm in tense situations

Prefers work that is routine

Is outgoing, sociable

Is sometimes rude to others

Makes plans and follows through with them

Gets nervous easily

Likes to reflect, play with ideas

Has few artistic interests

Likes to cooperate with others

Is easily distracted

Is sophisticated in art, music, or literature

Moral Identity Questionnaire (Black & Reynolds, 2016)

Listed below are some statements about how people feel and behave. Please indicate your agreement with each statement AS YOU REALLY BELIEVE IT APPLIES TO YOU. DO NOT be influenced by what other people might believe or if it seems you should feel or act differently than you do. PLEASE ANSWER HONESTLY. (6 points, *strongly disagree* to *strongly agree*)

Moral self:

1. I try hard to act honestly in most things I do.
2. Not hurting other people is one of the rules I live by.
3. It is important for me to treat other people fairly.
4. I want other people to know they can rely on me.
5. I always act in ways that do the most good and least harm to other people.
6. If doing something will hurt another person, I try to avoid it even if no one would know.
7. One of the most important things in life is to do what you know is right.
8. Once I've made up my mind about what is the right thing to do, I make sure I do it.

Integrity:

9. As long as I make a decision to do something that helps me, it does not matter much if other people are harmed.
10. It is ok to do something you know is wrong if the rewards for doing it are great.
11. If no one is watching or will know it does not matter if I do the right thing.
12. It is more important that people think you are honest than being honest.
13. If no one could find out, it is okay to steal a small amount of money or other things that no one will miss.
14. There is no point in going out of my way to do something good if no one is around to appreciate it.
15. If a cashier accidentally gives me $10 extra change, I usually act as if I did not notice it.
16. Lying and cheating are just things you have to do in this world.
17. Doing things that some people might view as not honest does not bother me.
18. If people treat me badly, I will treat them in the same manner.
19. I will go along with a group decision, even if I know it is morally wrong.
20. Having moral values is worthless in today's society.

Moral Agency Scale (Black, 2016):

Listed below are some statements about how people feel and behave. Please indicate your agreement with each statement AS YOU REALLY BELIEVE IT APPLIES TO YOU. DO NOT be influenced by what other people might believe or if it seems you should feel or act differently than you do. PLEASE ANSWER HONESTLY. (5 points, *strongly disagree* to *strongly agree*)

1. I have a choice whether to treat people well or badly.
2. If I feel pressured into doing something, I'm not as responsible as when I decide on my own.
3. If I get into trouble, it is my own fault even if someone else told me to do it.
4. I make up my own mind about doing good or bad things.
5. Sometimes it seems like fate determines whether my actions are good or bad.
6. I am just as at fault for breaking the rules when no one knows as when everyone knows.
7. Doing wrong is not really the fault of individuals when society enables them.
8. I am the one responsible for my own behavior, good and bad.
9. No one can make me do something I know to be wrong.
10. I feel responsible for the consequences of my actions.
11. Luck, more than what you do, is responsible for whether things turn out for the best.
12. Most of the time I can tell how my actions are going to affect others.
13. My actions in most situations are based on what other people tell me is the right thing to do.
14. In most cases, I can make my own decisions about what is right or wrong in a situation.
15. When making decisions that affect other people, I am usually aware of various options.

Machiavellian Personality Scale (Dahling et al., 2009):

Please indicate the extent to which you agree or disagree with the following statements. Remember, there are no wrong or right answers, just answer honestly.

(5 points, *strongly disagree* to *strongly agree*)

1. I believe that lying is necessary to maintain a competitive advantage over others.
2. The only good reason to talk to others is to get information that I can use to my benefit.
3. I am willing to be unethical if I believe it will help me succeed.
4. I am willing to sabotage the efforts of other people if they threaten my own goals.
5. I would cheat if there was a low chance of getting caught.
6. People are only motivated by personal gain.
7. I dislike committing to groups because I don't trust others.
8. Team members backstab each other all the time to get ahead.
9. If I show any weakness at work, other people will take advantage of it.
10. Other people are always planning ways to take advantage of the situation at my expense.

Imaginative resistance Scale (Black & Barnes, 2017):

Instructions: We are interested in your experiences with reading and watching fiction. **When answering the following questions, please think about books, movies, or TV shows that you are familiar with**. Please select the option that best shows your agreement or disagreement with each statement. Thank you. (Likert scale)

1. A good author can make me believe anything from dragons to space travel. (filler)
2. The hero of a story should be a moral person.
3. It makes me uncomfortable when my favorite character commits moral violations as if they were no big deal.
4. Reading books where bad things are depicted as morally acceptable makes me feel dirty.
5. I just can't go along with a story when it violates my beliefs about morality.
6. At times it feels like the author of a book is asking me to endorse actions that I know are wrong.

7. I sometimes cannot go along with a story when the “good” characters do morally reprehensible things.
8. Some things just shouldn't be done, even within a book.
9. I would be uncomfortable reading a book in which the protagonist thought it was okay to kill people.
10. I really don’t buy into stories that are full of werewolves and witches (filler)
11. Sympathizing with immoral characters makes me feel immoral myself.
12. I don’t like books where bad things are presented as the right thing to do.
13. I usually avoid books that have the good guys acting in ways that are morally unacceptable.
14. Being asked to imagine morally repugnant things makes me uncomfortable.
15. I would be uncomfortable reading a story in which the author endorsed torture.
16. I just can’t go along with a story when it violates the rules of physics. (filler)

Multiple Stimulus Types Ambiguity Tolerance (McLain, 1993; 2009):

Please indicate the extent to which you agree or disagree with the following statements. Remember, there are no wrong or right answers, just answer honestly.
(7 points, *strongly disagree* to *strongly agree*)

1. I don’t tolerate ambiguous situations well.
2. I would rather avoid solving a problem that must be viewed from several different perspectives.
3. I try to avoid situations that are ambiguous.
4. I prefer familiar situations to new ones.
5. Problems that cannot be considered from just one point of view are a little threatening.
6. I avoid situations that are too complicated for me to easily understand.
7. I am tolerant of ambiguous situations.
8. I enjoy tackling problems that are complex enough to be ambiguous.
9. I try to avoid problems that don’t seem to have only one “best” solution.
10. I generally prefer novelty over familiarity.
11. I dislike ambiguous situations.
12. I find it hard to make a choice when the outcome is uncertain.
13. I prefer a situation in which there is some ambiguity.

Need for Cognition Scale (Cacioppo & Petty, 1980):

1. I prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun. (R)

4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. (R)
5. I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something. (R)
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to. (R)
8. I prefer to think about small daily projects to long term ones. (R)
9. I like tasks that require little thought once I've learned them. (R)
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much. (R)
13. I prefer my life to be filled with puzzles I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that requires a lot of mental effort. (R)
17. It's enough for me that something gets the job done; I don't care how or why it works.(R)
18. I usually end up deliberating about issues even when they do not affect me personally.

Genre Familiarity Test (Black, Capps, & Barnes, 2017):

Below is a list of names. Some of them are authors of books, and some of them are not. Please put a check mark next to the ones that you **know for sure** are **authors**. Thank you.

Classics	**Contemporary Literary**
Charlotte Bronte	Michael Chabon
Charles Dickens	Paulo Coelho
Fyodor Dostoyevsky	Umberto Eco
George Elliot	Gabriel Garcia Marquez
William Faulkner	Michel Houellebecq
F. Scott Fitzgerald	Jhumpa Lahiri
Thomas Hardy	Cormac McCarthy
Nathaniel Hawthorne	David Mitchell
Ernest Hemingway	Toni Morrison
John Steinbeck	Annie Proulx
Leo Tolstoy	Philip Roth
Anthony Trollope	Salman Rushdie
Mark Twain	Richard Russo
Oscar Wilde	Jane Smiley
Virginia Woolf	Amy Tan
Fantasy	**Horror**
Terry Goodkind	Jack Ketchum
Neil Gaiman	Peter Straub

Robert Jordan
Patrick Rothfuss
George R. R. Martin
Terry Pratchett
Anne Bishop
Mercedes Lackey
Andrzej Sapkowski
David Eddings
Jim Butcher
J. R. R. Tolkien
Raymond E. Feist
R.A. Salvatore
Terry Brooks

Mystery/Thriller

James Patterson
Janet Evanovich
Michael Connelly
Harlan Coben
P. D. James
Dennis Lehane
Patricia Cornwell
John Grisham
Sue Grafton
Michael Prescott
Diane Mott Davidson
Agatha Christie
Lee Child
Dick Francis
Robert B Parker

Science Fiction

Orson Scott Card
Isaac Asimov
Robert A. Heinlein
Arthur C. Clarke
Frank Herbert
Octavia Butler
Ann Leckie
John Scalzi
Sarah Langan
Bryan Smith
Hunter Shea
Robert McCammon
Clive Barker
Ramsey Campbell
Jonathan Maberry
James A. Moore
Stephen King
James Herbert
William Peter Blatty
John Ajvide Lindqvist
Richard Laymon

Romance

Nora Roberts
Judith McNaught
Julia Quinn
Julie Garwood
Jayne Ann Krentz
Rosamunde Pilcher
Kathleen E. Woodiwiss
Danielle Steel
Debbie Macomber
Robyn Carr
Linda Lael Miller
Susan Elizabeth Phillips
Lisa Kleypas
Johanna Lindsey
Lynsay Sands

(Science Fiction)

Hugh Howey
Karen Traviss
Connie Willis
William Gibson
Cory Doctorow
Phillip K. Dick
Samuel R Delany

Foils (from Acheson *et al.*, 2008): Patrick Banville, Kristen Steinke, Hiroyuki Oshita, Elinor Harring, Lisa Woodward, David Harper Townsend, Anna Tsing, Cameron McGrath, A.C. Kelly, Peter Flaegerty, Martha Farah, Craig DeLord, Stewart Simon, Ted Mantel, I.K. Nachbar, Wayne Fillback, Walter Dorris, Erich Fagles, Marion Coles Snow, Amy Graham, Giles Mallon, Seth Bakis, David Ashley, Keith Cartwright, Larry Applegate, Gloria McCumber, Judith Stanley, Christina Johnson, Jay Peter Holmes, Geoffrey Pritchett, Gary Curwen, Harry Coltheart, John Landau, Harriet Troudeau, Roswell Strong, Seamus Huneven, Chris Schwartz, Walter LeMour, Elizabeth Engle, Marvin Benoit, Jessica Ann Lewis, Arturo Garcia Perez, S.L. Holloway, Stephen Houston, Marcus Lecherou

Young Adult Fiction Test (Black & Barnes, in preparation):

Laurie Halse Anderson	Ally Carter	Walter Dean Meyers
Claudia Gray	Lauren Oliver	E. Lockhart
Sara Zarr	Maggie Stiefvater	Carrie Ryan
Holly Black	Cassandra Clare	Ally Condie
Stephanie Perkins	Jay Asher	Beth Revis
Sarah Dessen	Maureen Johnson	Marie Lu
Emery Lord	Jenny Han	Leigh Bardugo
Malinda Lo	Brenna Yovanoff	Kiersten White
Libba Bray	Scott Westerfeld	Alexandra Bracken
Laini Taylor	Kiera Cass	MT Anderson
Simone Elkeles	Becca Fitzpatrick	Gayle Forman
David Levithan	Amanda Hocking	Jandy Nelson
Tamora Pierce	Cinda Williams Chima	Veronica Roth
Siobhan Vivian	James Dashner	Morgan Matson
Robyn Schneider	Rainbow Rowell	Kody Keplinger
Victoria Aveyard	Marissa Meyer	Renee Ahdieh
Mary E Pearson	Rae Carson	Sarah Rees Brennan
Matt de la Pena	Rachel Cohn	Sabaa Tahir
Kendare Blake	Kami Garcia	Tahereh Mafi
Ruta Sepetys	Jennifer E. Smith	Courtney Summers
Suzanne Young	John Green	Suzanne Collins
A.S. King	Laura Ruby	Neal Shusterman
Jason Reynolds	Rachel Hawkins	Nikki Grimes
Meg Medina	Rachel Hartman	Elizabeth Wein
Erin Bow	Margaret Stohl	Nicola Yoon
Lauren Myracle	Adam Silvera	Andrew Smith
Sarah J Maas	Jessica Brody	Susane Colasanti
Danielle Paige	Amie Kaufman	Megan Spooner
Francisco X. Stork	Susan Ee	Jennifer Donnelly
Kimberly Derting	Elizabeth Eulberg	Ransom Riggs
Kristin Cashore	Christopher Paolini	Julie Kagawa
Susan Dennard	Veronica Rossi	Melina Marchetta
Jennifer Niven	Coe Booth	Nova Ren Suma
Cynthia Leitich Smith	Barry Lyga	Ryan Graudin
Kekla Magoon	Aisha Saeed	Marieke Nijkamp
Justine Larbalestier	Julie Murphy	Katie Alender

Foils (from Mar et al., 2006): Lauren Adamson, John Condry, Martin Ford, James Morgan, Eric Amsel, Edward Cornell, Harold Gardin, Scott Paris, Margaritia Azmitia, Carl Corter, Frank Gresham, Richard Passman, Oscar Barbarin, Diane Cuneo, Robert Inness, David Perry, Reuben Baron, Denise Daniels, Frank Keil, Miriam Sexton, Gary Beauchamp, Geraldine Dawson, Reed Larson, K Warner Schaie, Thomas Bever, Aimee Dorr, Lynn Liben, Robert Siegler, Elliot Blass, W. Patrick Dickson, Hugh Lytton, Mark Strauss, Dale Blyth, Robert Emery, Franklin Manis, Alister Younger, Hilda Borko, Frances Fincham, Morton Mendelson, Steve Yussen

Nonfiction (adapted from Mar et al., 2006)

Science
Stephen Hawking
Stephen J. Gould
Richard Dawkins
Thomas Kuhn
Ernst Mayr
John Maynard Smith
Diane Ackerman
Douglas Hofstadter
Patricia Churchland
Sarah Blaffer Hrdy
E. O. Wilson
Rebecca Skloot

Political/Social commentary

Noam Chomsky
Alain de Botton
Michael Moore
Eric Schlosser
Bob Woodward
Naomi Klein
Naomi Wolf
Robert D. Kaplan
Louis Menand
Karen Blumenthal

Narrative Nonfiction
Lee Gutkind
Susan Orlean
Jon Krakauer
Anne Fadiman
Dava Sobel
Simon Winchester
Ta-Nehisi Coates
Steve Sheinkin
Susan Goldman Rubin
Pamela S. Turner
Michael Lewis
Laura Hillenbrand

Philosophy/Psychology
Roland Barthes
John Searle
Jean Baudrillard
Michel Foucault
Bertrand Russell
Daniel Goleman
Oliver Sacks
Sam Harris
Jonathan Haidt
Hannah Arendt
Martha Nussbaum

Self-Help

Jack Canfield
Philip C. McGraw
M Scott Peck
Robert Fulghum
Erma Bombeck
Stephen R. Covey
Melody Beattie
Deepak Chopra
Marianne Williamson
Robert Greene

Appendix C

Pilot Study

Results from Pilot study with final vignettes, as well as tables with results of analyses testing effects of demographics can be found in the following pages.

Table A1

Proportions of participants who preferred the unconflicted vs. the conflicted protagonist in undergraduate sample for Pilot Study.

Domain	**Unconflicted**	**Conflicted**	**Proportion unconflicted**	***p***
Care	74	22	.77	< .001
Fairness	80	14	.85	< .001
Authority	59	35	.63	.017
Loyalty	58	35	.62	.022
Purity	68	23	.71	< .001

Note. Binomial tests used to compare proportions (null hypothesis = .50). Cochran's Q (df = 4) = 25.54, p < .001 for omnibus test showed differences in moral judgment across domains.

Table A2

Comparisons between scores on Moral Foundations Questionnaire subscales for participants who found the conflicted vs. unconflicted protagonists more moral, Pilot Study.

	N_C	N_U	M_C (SD_C)	M_U (SD_U)	*t*	*p*	*d*
Care							
MFQ Care	22	73	4.94 (0.95)	5.30 (0.78)	1.81	.074	0.42
MFQ Fairness	22	73	4.94 (0.81)	5.20 (0.81)	1.34	.185	0.32
MFQ Authority	22	73	3.91 (0.74)	4.04 (0.85)	0.64	.526	0.16
MFQ Loyalty	22	73	3.96 (0.76)	4.09 (0.83)	0.63	.530	0.16
MFQ Purity	22	73	3.52 (1.06)	3.59 (0.92)	0.31	.761	0.07
Fairness							
MFQ Care	14	79	5.21 (1.19)	5.21 (0.75)	0.04	.969	0.01
MFQ Fairness	14	79	5.01 (1.05)	5.16 (0.77)	0.62	.539	0.16
MFQ Authority	14	79	3.96 (0.83)	4.00 (0.82)	0.13	.895	0.04
MFQ Loyalty	14	79	4.05 (0.73)	4.03 (0.81)	0.09	.931	-0.03
MFQ Purity	14	79	3.76 (0.85)	3.52 (0.95)	0.88	.384	-0.26
Authority							
MFQ Care	34	59	5.01 (0.85)	5.32 (0.81)	1.74	.086	0.37
MFQ Fairness	34	59	4.95 (0.76)	5.21 (0.83)	1.50	.136	0.33
MFQ Authority	34	59	3.86 (0.77)	4.07 (0.85)	1.19	.238	0.26
MFQ Loyalty	34	59	3.98 (0.84)	4.08 (0.80)	0.58	.562	0.12
MFQ Purity	34	59	3.38 (0.87)	3.65 (0.97)	1.35	.180	0.30
Loyalty							
MFQ Care	34	58	5.03 (0.79)	5.37 (0.79)	2.01	.048	0.43
MFQ Fairness	34	58	4.98 (0.87)	5.27 (0.77)	1.68	.097	0.36
MFQ Authority	34	58	3.77 (0.70)	4.14 (0.87)	2.07	.041	0.46
MFQ Loyalty	34	58	3.95 (0.69)	4.12 (0.88)	1.00	.322	0.22
MFQ Purity	34	58	3.25 (0.85)	3.80 (0.96)	2.71	.008	0.59
Purity							
MFQ Care	23	67	5.06 (1.03)	5.27 (0.79)	1.04	.303	0.23
MFQ Fairness	23	67	4.96 (0.79)	5.19 (0.82)	1.21	.231	0.29
MFQ Authority	23	67	3.86 (0.72)	4.04 (0.84)	0.89	.376	0.22
MFQ Loyalty	23	67	3.99 (0.86)	4.04 (0.84)	0.26	.793	0.06
MFQ Purity	23	67	3.36 (0.89)	3.63 (0.93)	1.24	.218	0.30

Appendix D

Table A3

Associations of political orientation, mother education, ethnicity, and religion with individual differences in the Moral Foundations Questionnaire (MFQ) subscales, Personality, Integrity, Moral Self, Moral Agency, Machiavellianism, Need for Cognition, Ambiguity Tolerance, and Imaginative Resistance in the undergraduate sample.

	Political orientation	Mother's education	Ethnicity	Religion
	ρ	**ρ**	**η^2**	**η^2**
MFQ Care	-.17*	-.09	.014	.017
MFQ Fairness	-.22*	-.02	.009	.043
MFQ Authority	.42*	.01	.013	.131*[(b)]
MFQ Loyalty	.43*	-.03	.065*[(a)]	.134*[(c)]
MFQ Purity	.37*	.02	.008	.242*[(d)]
Openness	-.19*	-.05	.021	.055
Conscientiousness	.17	-.10	.045	.050
Extraversion	.10	-.06	.026	.031
Agreeableness	.11	-.03	.056	.047
Neuroticism	-.08	.02	.028	.023
Integrity	.10	-.10	.055	.073*[(e)]
Moral Self	< .01	-.04	.009	.020
Moral Agency	.05	-.18*	.017	.051
Machiavellianism	-.09	.12	.040	.053
Need for Cognition	-.18*	-.13	.008	.092*[(f)]
Ambiguity Tolerance	-.09	-.02	.007	.047
Imaginative Resistance	.24*	-.06	.040	.101*[(g)]

Note. * $p < .001$; Spearman's rho (ρ) used for correlations with political orientation (single item, 6 points, 1= *very liberal* and 6 = *very conservative*) and mother's education (7 points; 1 = *less than high school degree* and *7 = graduate or professional degree*). Omnibus eta squared (η^2) reported for ethnicity and religion. (a) White non-Hispanic had higher MFQ loyalty scores than Black/African American and Hispanic (b) Catholics and Hindus scored higher than Agnostics and nones; Protestants scored higher than Agnostics, Atheists, religious but unaffiliated, and nones. (c) Agnostics, atheists, and "none" scored lower on the MFQ loyalty subscale than Catholics, Protestants, Hindus, and "Other." (d) Catholics, Hindus, Muslims, and Protestants tended to score higher than Agnostics, Atheists, religious but unaffiliated, and nones; (e) no pairwise comparisons with cell size > 8 significant at $p < .001$ (f) Agnostics reported greater need for cognition than Atheists, Catholics, Hindus, Protestants, religious but unaffiliated, and 'other." (h) Catholics and Protestants reported greater imaginative resistance than Agnostics, Jewish, and nones.

Table A4

Associations of political orientation, age, ethnicity, and religion with individual differences in the Moral Foundations Questionnaire (MFQ) subscales in the Web sample.

	Political Orientation	**Age**	**Ethnicity**
MFQ Care	-.21	.08	.146*[(a)]
MFQ Fairness	-.28*	.01	.091
MFQ Authority	.55*	.12	.090
MFQ Loyalty	.42*	.17	.063
MFQ Purity	.51*	.15	.052

Note. * $p < .001$; Spearman's rho (ρ) used for correlations with political orientation (single item, 6 points, 1= *very liberal* and 6 = *very conservative*). Pearson's *r* used for correlations with age; Omnibus eta squared (η^2) reported for ethnicity. (a) no pairwise comparisons with cell size > 2 significant at $p < .001$.

Table A5

Gender differences, Undergraduate sample.

	N_F	N_M	M_F (SD_F)	M_M (SD_M)	*t*	*p*	*d*
MFQ Care	351	89	4.71 (0.77)	4.62 (0.73)	1.02	.306	0.12
MFQ Fairness	351	89	4.67 (0.73)	4.62 (0.73)	0.52	.600	0.06
MFQ Authority	351	89	4.19 (0.74)	4.15 (0.69)	0.47	.636	0.06
MFQ Loyalty	351	89	3.98 (0.81)	4.00 (0.79)	0.18	.855	0.02
MFQ Purity	351	89	3.96 (0.87)	3.89 (0.93)	0.74	.460	0.09
Openness	352	89	3.34 (0.53)	3.43 (0.60)	1.30	.196	-0.15
Conscientiousness	352	89	3.61 (0.51)	3.59 (0.62)	0.34	.736	0.04
Extraversion	352	89	3.25 (0.71)	3.19 (0.72)	0.68	.497	0.08
Agreeableness	352	89	3.76 (0.51)	3.75 (0.47)	0.15	.878	0.02
Neuroticism	352	89	3.14 (0.71)	2.71 (0.61)	5.17	< .001	0.64
Integrity	384	111	3.98 (0.55)	3.77 (0.60)	3.55	< .001	0.37
Moral Self	384	111	4.20 (0.42)	4.02 (0.46)	3.79	< .001	0.40
Moral Agency	352	89	3.92 (0.45)	3.88 (0.47)	0.82	.412	0.10
Machiavellianism	383	111	2.30 (0.58)	2.50 (0.65)	3.19	.001	-0.33
Imaginative Resistance	349	87	2.82 (0.67)	2.68 (0.69)	1.72	.086	0.20
Need for cognition	350	89	3.16 (0.57)	3.34 (0.62)	2.49	.013	-0.29
Ambiguity tolerance	384	110	4.39 (0.70)	4.55 (0.69)	2.11	.036	-0.23
YA Fiction	384	111	4.55 (5.47)	1.98 (2.27)	4.83	< .001	0.61
Classics	352	89	4.53 (3.22)	3.80 (3.05)	1.93	.054	0.23
Literary Fiction	352	89	0.31 (0.74)	0.27 (0.75)	0.49	.628	0.06
Fantasy	352	89	0.10 (0.46)	0.04 (0.21)	1.08	.281	0.15
Historical Fiction	352	89	0.10 (0.39)	0.04 (0.21)	1.27	.205	0.17
Horror	352	89	0.11 (0.46)	0.07 (0.29)	0.85	.399	0.11
Mystery/Thriller	352	89	0.28 (0.76)	0.10 (0.30)	3.38	.001	0.30
Romance	352	89	0.23 (0.72)	0.12 (0.52)	1.27	.204	0.16
Science Fiction	352	89	0.20 (0.67)	0.17 (0.43)	0.37	.713	0.05
Narrative nonfiction	384	111	0.13 (0.42)	0.05 (0.26)	1.68	.094	0.20
Nonfiction	384	111	0.80 (1.76)	0.73 (1.24)	0.39	.699	0.05

Note. All cases analyzed (including those that failed manipulation checks for vignettes).

Table A6

Gender differences, Web sample.

	N_F	N_M	M_F (SD_F)	M_M (SD_M)	t	p	d
MFQ Care	135	55	5.07 (0.75)	4.65 (0.87)	3.40	.001	0.53
MFQ Fairness	135	55	4.88 (0.73)	4.80 (0.73)	0.74	.458	0.12
MFQ Authority	135	55	3.66 (0.92)	3.34 (1.02)	2.12	.035	0.33
MFQ Loyalty	135	55	3.59 (0.90)	3.32 (0.84)	1.87	.063	0.30
MFQ Purity	135	55	3.30 (1.15)	2.80 (1.13)	2.73	.007	0.44
Classics	145	63	8.56 (4.88)	7.24 (4.65)	1.82	.070	0.28
Literary Fiction	145	63	2.83 (3.91)	2.30 (3.43)	0.92	.357	0.14
Fantasy	145	63	3.00 (3.20)	4.02 (3.73)	2.00	.047	-0.29
Historical Fiction	145	63	1.18 (1.75)	0.52 (1.05)	2.76	.006	0.45
Horror	145	63	0.62 (1.03)	0.56 (1.29)	0.39	.700	0.06
Mystery/Thriller	145	63	3.97 (3.72)	2.65 (2.70)	2.54	.012	0.41
Romance	145	63	2.17 (2.86)	0.67 (0.82)	5.78	< .001	0.71
Science Fiction	145	63	1.92 (2.85)	2.98 (3.49)	2.31	.022	-0.33

Note. All cases analyzed (including those that failed manipulation checks for vignettes).

Table A7

Zero-order correlations between the personality factors of Openness to Experience (O), Conscientiousness (C), Extraversion (E), Agreeableness (A), and Neuroticism (N) and all other variables measured in Studies 1, 2, and 3.

	O	**C**	**E**	**A**	**N**
Moral Character Judgment (good outcomes)					
Care	-0.18	0.10	0.07	0.07	0.09
Fairness	-0.24	0.03	< 0.01	0.03	0.26
Authority	-0.19	0.11	0.06	0.20	-0.09
Loyalty	-0.10	0.19	0.15	0.16	0.06
Purity	-0.23	0.06	-0.06	0.17	0.11
Self-report scales					
MFQ Care	.27*	.18*	.06	.22*	.11
MFQ Fairness	.23*	.16	.06	.16	.07
MFQ Authority	-.11	.20*	.12	.23*	-.01
MFQ Loyalty	-.04	.20*	.29*	.22*	-.08
MFQ Purity	-.02	.27*	.19*	.19*	-.10
Integrity	.13	.34*	.08	.34*	-.03
Moral Self	.19*	.27*	.10	.37*	-.02
Moral Agency	.28*	.40*	.06	.34*	-.10
Machiavellianism	-.11	-.24*	-.14	.32*	.16
Imaginative Resistance	-.13	.11	-.03	.09	.06
Need for Cognition	.54*	.31*	-.02	.10	-.19*
Ambiguity Tolerance	.40*	.22*	.15	.12	-.21*
Classics	.20*	.04	-.07	.04	.10
Literary	.07	-.07	-.07	-.06	.16
Fantasy	-.04	-.09	-.01	.02	.05
Historical	.08	< .01	.04	.01	.10
Horror	.08	-.11	.01	.04	.10
Mystery	-.03	.04	.04	.04	.04
Romance	.08	.06	-.01	.02	.10
Science Fiction	.06	-.11	-.05	-.04	.08
YA fiction	< .01	-.03	-.13	.02	.17*
Narrative nonfiction	.01	-.06	< .01	.07	.02
Nonfiction	.12	-.01	-.04	.02	.05

Note. *p < .001. Cohen's d for independent samples t-tests presented as effect size for association of moral character judgment and personality. For author recognition tests, Square root transformations used to correct for positive skews; because variables still not normally distributed, Spearman's rho reported.

Table A8

Zero order correlations (Spearman's rho) between overall moral character judgment and scores on author recognition test genre scales.

	Good outcomes		**Bad outcomes**	
	ρ	***p***	ρ	***p***
Undergraduate				
Classics	.114	.023	.117	.025
Literary	.090	.076	.022	.675
Fantasy	-.012	.812	.021	.693
Historical	-.018	.725	-.023	.659
Horror	.016	.746	-.023	.659
Mystery	-.025	.614	-.001	.991
Romance	-.055	.280	-.012	.816
Science Fiction	< .001	.999	-.072	.165
YA fiction	.073	.148	.094	.071
Narrative nonfiction	-.005	.929	-.078	.135
Nonfiction	-.051	.308	.036	.496
Web				
Classics	.278	< .001		
Literary	.190	.012		
Fantasy	.183	.015		
Historical	.167	.026		
Horror	.089	.238		
Mystery	.128	.090		
Romance	.139	.066		
Science Fiction	.216	.004		
Narrative nonfiction	.232	.002		
Nonfiction	.235	.001		

Note. Undergraduates: *df* = 392 for good outcomes, *df* = 368 for bad outcomes; Web: *df* = 174. All variables transformed prior to analyses (square root). Total moral character judgment scored such that 0 = unconflicted protagonist chosen in all domains and 5 = conflicted protagonist chosen in all domains.