

# Hardworking as a Heuristic for Moral Character: Why We Attribute Moral Values to Those Who Work Hard and Its Implications

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**Abstract** The Protestant Work Ethic (PWE) is a powerful force in Western culture with far reaching effects on our values and judgments. While research on PWE as a cultural value is abundant in diverse disciplines, little research has explored how this cultural value facilitates the use of heuristics when evaluating the morality of others. Using both PWE and illusory correlation as foundations, this paper explores whether people attribute positive moral characteristics to others merely based upon a description as hardworking. Three experiments suggest merely being described as hardworking leads to perceptions of greater honesty, a more careful and detailed approach to one's work, accompanied by a lesser likelihood of engaging in cheating behavior and a greater likelihood of accountability. These results have implications regarding the detection of deviant/fraudulent behavior.

**Keywords** Illusory correlation · Hardworking · Protestant work ethic · Availability heuristic · Moral character

## Introduction

Many fields of study have exhibited a vibrant interest in the ethics of character, including the history of political philosophy (e.g., MacIntyre 2013; Pettit 1997; Sandel 1998), history of ideas (Pocock 1998; Skinner 1985), both of which sought to recover a civic or republican virtue, with the primary, persistent, but underlying question being how one can measure another's virtuous character. Adam Smith (Smith

1759), along with other moral theorists, marshaled lengthy discussions about what constitutes a "good" character. Smith supported "commercial society" or capitalism, while at the same time emerging as one of its earliest and most unsparing critics. Smith critiqued capitalism on moral grounds for its propensity for corruption of a person's character. While critics like Smith have set forth lengthy and nuanced critiques of capitalism's effects of consumerism and materialism on human flourishing or well-being, this study seeks to advance another well-known theorist, Max Weber's, nuanced position about character; in particular, on how perceptions of a person's hardworking character can often be misleading about that person's overall virtuous nature.

The discussion about character in the context of one's work ethic is unyielding in popular culture of the modern age. A 2002 USA Today article on the growing corporate scandals of the early 2000s insinuated that the CEOs and executives responsible for the prominent scandals were creating an image of CEOs as crooks and this image was affecting honest, hardworking CEOs and executives (Horvitz 2002). Insinuated in this statement is that in addition to being dishonest, the perpetrators of the scandals must also be indolent. Further, in 1994, politician Phil Gramm stated that the safety net we have provided through social assistance has become a hammock (Lakoff 1995). The hammock metaphor used by Gramm was symbolic of American perceptions of the link between laziness and immorality. A man in a hammock is not interested in working but is interested in self-indulgence (Lakoff 1995). Such associations between laziness and immorality are found in the adage that the devil finds work for idle hands (Rees 1986).

In contrast, workaholics are often praised in society (Mazzetti et al. 2014), regardless of the driving force of their workaholic tendencies or the consequences of such behavior. Workaholic tendencies may stem from factors such as

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identity issues or self-centeredness and may result in ethical deterioration, dishonesty, and workplace deviance (Fry and Cohen 2009; Galperin and Burke 2006; Scottl et al. 1997). A prominent example can be found in the cyclist, Lance Armstrong. While suspicion surrounded Armstrong prior to his admission of using illegal, performance-enhancing steroids, he was often praised for his grueling training routine and many people adamantly dismissed any accusations that his success could be attributed to anything more than the combination of his talent and hard work (McDougall 2010). As noted in a blog published as doping evidence against Armstrong proliferated, we (society) may have greatly misjudged Armstrong's (moral) character despite the fact that in hindsight, Armstrong was doping recklessly (Pratihary 2012). Yet, no one can doubt how hard Armstrong worked to achieve success and the demands he placed on others to do the same (Richardson 2014), independent of his doping activities.

These examples, and this study, explore a number of questions. Why does it appear that "hardworking" is often used as a measure of the quality of one's character? Further, what are the implications of assumptions we make about hardworking people? Using Weber's (2001) work as a theoretical foundation, this study provides an investigation into whether individuals in the USA use one's perceived hardworking nature as a heuristic to evaluate an individual's overall moral character. It is proposed that the emphasis many people place on how hard someone is perceived to work stems from Weber's (2001) longstanding Protestant Work Ethic (PWE). PWE has greatly influenced Western culture with hard work becoming a central cultural value in the USA (Doran and Littrell 2013) due to the pervasive work ethic cultural phenomenon in the Western hemisphere (Giorgi and Marsh 1990).

The remainder of this paper is organized as follows. First, a general overview of PWE is provided, followed by a brief review of its application in a business ethics context. Next, illusory correlation, defined as the act of assuming things are correlated independent of perceptible evidence (Harvey 1998), is discussed followed by hypothesis development. The method section discusses the execution of the three experiments and the corresponding results. A discussion of the findings, implications, limitations, and recommendations for future research conclude the manuscript.

## Protestant Work Ethic

In Max Weber's controversial work, he expounded on the distinct work ethic associated with countries dominated by Protestant influences and how he felt it was a driving force of development in the Western Hemisphere (Weber 2001). In Weber's writings, he particularly noted the influence of

Calvinistic doctrine (influence of John Calvin) which led to perceptions that hard work and productivity were important for honoring God. A key tenant of Calvinistic doctrine was the belief that only those people predetermined as the elect could ascend to heaven (Porter 2010). Weber further posited that as a result of this belief, worldly success attributed to hard work became perceived under Calvinistic doctrine as a sign that one was included in the elect and bound for heaven's rewards (Porter 2010).

Beit-Hallahami (1979, p. 263) articulated Weber's PWE as "an orientation toward work which emphasizes dedication to hard work, deferment of immediate rewards, conservation of resources, the saving of surplus, and the avoidance of idleness and waste in any form." Inherent in Weber's thesis is that PWE provides moral justification for the accumulation of wealth and thus supports capitalism as a morally superior economic system (Furnham 1984). While Weber's thesis and the causal relationships between religious values and the growth of capitalism and its moral status have been vehemently debated (e.g., Furnham 1984; MacIntyre and Korb 1962), the embracement of work ethic in the Western hemisphere is undeniable. It has been noted that what has simply been labeled by researchers as PWE, became such as dominant cultural value among Western societies that its influence on society appears robust beyond religious affiliation (e.g., Arslan 2001; Cherrington 1980; Furnham 1990; Jones 1997; Zhang et al. 2012). Regarding work ethic, there is an expectation in US culture that hard work is the pathway to future rewards and a likewise expectation that everyone should work hard and expect to share in the rewards of hard work (Porter 2010). Given the pervasiveness of PWE as a cultural value, an examination of whether people may attribute overall moral traits to others who are merely perceived as hardworking is warranted.

## Work Ethic and Business Ethics

Since Weber's work was originally published in 1905, academics have spent considerable time examining work ethic in a variety of contexts and have debated the various dimensions of work ethic and the implications for society. Despite debates over the tenants of Weber's thesis, the modern concept of work ethic is firmly grounded in Weber's PWE (Ryan and Tipu 2016). Specifically, many work ethic scales stem from Weber's thesis on the Protestant Ethic (e.g., Blood 1969; Goldstein and Eichhorn 1961; Hammond and Williams 1976; Mirels and Garrett 1971; Wollack et al. 1971). Extensions of these scales are evident in many recent studies which examine PWE in a variety of contexts (e.g., Dover et al. 2015; McMurray and Scott 2013; Silvia et al. 2014; Zhang et al. 2012) and PWE has been prominently examined

in business ethics research (e.g., Carr 2003; Khan et al. 2013; Ryan and Tipu 2016).

In an effort to reconcile the many attempts at capturing the critical dimensions of PWE, Miller et al. (2002) reexamined PWE and concluded that PWE is often composed of seven core dimensions. These dimensions are willingness to work hard, self-reliance, negative attitude toward leisure, centrality of work (importance of work for work's sake), morality/ethics, delay of gratification, and a desire to avoid wasted time. Not surprisingly, researchers have found that aspects of work ethic ideology correlate with the conscientiousness dimension (dependability and the will to achieve) of the Big Five personality traits (Christopher et al. 2008; Kalshoven et al. 2011; Miller et al. 2002; Poropat 2009). Likewise, other research on self-schema and moral identities suggests that moral self-schemas typically include characteristics such as hardworking, caring, compassionate, and honesty (e.g., Gino et al. 2011; Mayer et al. 2012). In examining individuals' value structures, one's hardworking nature is used as an exploratory phrase to define the value "ambitious", which is closely associated with other values such as intelligent, capable, and successful (Rokeach 1973; Schwartz 1992). In addition, when an individual is described to have a strong work ethic, others are more likely to consider him/her more trustworthy, reliable, responsible and respectable (Biernat et al. 1996).

Work ethic illustrates the central value of work as reflected in an individual's attitudes and beliefs (Meriac et al. 2010; Nevins et al. 2007; Ryan and Tipu 2016; Zulfikar 2012). No longer strictly associated with PWE, work ethic gives meaning to human labor (Herman 2002). While the dimensions of work ethic are typically linked to dimensions of PWE, more research has posited that despite our perceptions, people with the same work ethic in terms of the dedication to and emphasis placed on hard work may behave differently (Porter 2010). For example, people with stronger PWE beliefs are competitive in nature, while people with weaker PWE beliefs are collaborative (Furnham and Quilley 1989). Competitiveness, associated with an endorsement of the PWE, can be disadvantageous since the overall gain can be less due to lack of cooperative tactics (Furnham and Quilley 1989). As well, people with strong PWE beliefs are found to have increased prejudice toward outgroups since these groups are often perceived as lazy, lacking discipline, and in self-denial (Biernat et al. 1996). Moreover, many highly successful people may be extremely hardworking but behave in ethically questionable and opportunistic ways. It has been posited that the acculturation of excess work, sacrifice of personal life for work life, and reward obtainment from exploitation for financial gains, may lead individuals to engage in and potentially pressure subordinates into likewise opportunistic behavior (Porter 2010). In fact, past research suggests that traditional measures of work ethic

serve only as moderate predictors of values and behavior (e.g., Christopher et al. 2008; Furnham 1984; Miller et al. 2002). Hardworking people behaving unethically appears to contradict traditional notions of work ethic as constructed from PWE since there is a lack of the ethical characteristics (e.g., honesty) evident in the more traditional perspective (Herman 2002). Yet in an achievement-oriented society, the ethical character of such people may be skewed due to these traditional notions we have about hardworking as an individual trait and its relationship to other positive individual characteristics we associate with a strong moral character.

To be able to behave morally, a person needs to be more than simply hardworking. For instance, Rest (1986) proposed a model for individual ethical decision-making and behavior with four independent and necessary processes: moral sensitivity, moral judgment, moral motivation, and moral implementation. To behave morally in any given situation, a person must recognize a moral issue (moral sensitivity), make a moral judgment (moral judgment), give priority to moral values above personal values (moral motivation) and act on the moral concerns (moral implementation). Moral behavior requires a complexity of these four processes and moral failure can occur at any point in the chain of process (Narvaez 2010). The contemporary work ethic discourse does possess moral overtones, yet these overtones likely stem from distortions in the views of personal success and achievement as symbolic outcomes of moral conduct (Porter 2010), without scrutiny of the moral reasoning processes that produced the outcomes. This research investigates the use of one's hardworking nature as a heuristic for one's moral character and answers calls for research on the effects of availability on perceptions and the effects of cultural forces in relation to moral identity (Craft 2013). We postulate that the traditional Weberian notions of work ethic are so culturally ingrained that undue ethical attributes are assigned to people perceived as hardworking through illusory correlation.

### Illusory Correlation

As posited by past research, readily available elements of culture (e.g., persistently reinforced cultural norms/symbols) are more easily retrievable and likely distort an individual's perception (Fiske and Taylor 2013; Gigerenzer 2008; Hamilton and Sherman 1996; Schudson 1989). Heuristics are embedded in social environments (Gigerenzer 2008) with normative beliefs and cultural symbols operating as signals influencing individual judgments (Ofir 2000). These cultural elements operate through the availability heuristic to influence judgments instead of statistical likelihood (Ofir 2000). The availability heuristic explains the role of accessibility in judgments and evaluations and suggests that the process of

imagining outcomes influences assumptions about an event's likelihood (Mathieson 2007; Tversky and Kahneman 1973). A large body of research lends support for the availability heuristic in a variety of contexts and the effects that information retrieval ease has on judgments (Sinha and Naykankuppam 2013). If the image of an event is more accessible, for example through personal experience, individuals will assume the event has a higher likelihood of occurring and thus more frequently make associations with it (Schwarz 1998; Singer et al. 1991). Alternatively stated, this heuristic leads people to place a greater weight on the ease of which they can recall information than on statistical probability. In a given judgment situation, people must make judgment decisions without extensive time for deliberation so the ease of which information can be retrieved plays a prominent role (Sinha and Naykankuppam 2013).

Stemming from the availability heuristic, illusory correlations may occur as a result of information recall ease (Hamilton and Gifford 1976; Hamilton and Sherman 1996; Harvey 1998; Plous 1993). Illusory correlation operates through the availability heuristic and is a phenomenon where an individual is able to easily recall various bits of information that the individual perceives to be strongly associated, despite the fact that little correlation may exist in reality (Harvey 1998). Diverse examples of illusory correlation exist in academic research. For instance, Kang et al. (2003) found that individuals perceive the correlation between travel time and travel distance to be high even if the actual time and actual distance correlations are very low or nonexistent. Unforeseen at the time and fueling further investigations into the complexity of the relationship (Judge et al. 2017), a prominent meta-analysis examining the link between job satisfaction and job performance provided weaker than expected evidence and suggested that illusory correlation may explain why people simply logically perceive the two variables should strongly interrelate (Iaffaldano and Muchinsky 1985). Pertinent to the context of this study, both Hamilton and Sherman (1996) and Sanbonmatsu et al. (1987) purport that illusory correlation operates when forming judgments about groups of people (social stereotyping). The impressions of group members are influenced by the perceived co-occurrence of attributes and behaviors (Hamilton and Sherman 1996; Sanbonmatsu et al. 1987). Hence, correlations are perceived even when empirical evidence is lacking (Chapman and Chapman 1969; Vanhouche and van Osselaer 2009).

In terms of moral judgments, past research suggests that the use of heuristics, as facilitated by illusory correlation, can lead to errors and detrimental action and inaction, as evident in social stereotyping (Narvaez 2010). Moral judgments are often culturally socialized and intuitive rather than reasoned (Hayibor and Wasieleski 2009; Narvaez 2010; Uhlmann et al. 2011). In Western culture, the culturally socialized perceived relationship between the efforts put in one's

work and an individual's morality is anecdotally evident as demonstrated by previous examples. From the portrayal of CEOs and executives associated with corporate scandals relative to their honest and hardworking counterparts (Horovitz 2002), to Phil Gramm's hammock metaphor, to the suggested misjudgments about Lance Armstrong's moral character (Pratihary 2012), one's hardworking character as a moral signifier seems ubiquitous.

Stemming from PWE are the notions that hard work, honesty, and care in work-related activities go hand-in-hand (Jones 1997; Uhlmann et al. 2011). Interestingly, research by the accounting firm KPMG indicates that individuals who are more likely to commit fraud rarely take holidays and are often perceived as trustworthy within the organization (Ostwalt et al. 2011). According to the Association of Certified Fraud Examiners (ACFE), people who commit fraud are often viewed as the model employee since they work late and do not take vacations (Parcher 2012). Independent of one's hardworking nature and despite perceptions, research profiling individuals likely to commit fraud suggest that need (e.g., debt) and greed (e.g., desire to live well), not one's hardworking nature, are the dominant factors for committing fraud (Özkul and Pamukçu 2012; Wells 2001). This example exemplifies the potential associations and illusory correlations created due to the influence of PWE as a cultural value. In sum, whether a person is simply described as hardworking or indolent should influence people's judgments about other characteristics a person possesses (e.g., honestly, careful approach to work) and influence judgments about future behavior (e.g., likelihood of cheating). Therefore, we hypothesize:

The more (less) hardworking an individual is perceived to be, the more (less) favorable the judgment of the individual's moral character will be.

## Methodology

To examine hardworking as a heuristic for one's moral character, three studies were conducted. Study 1 gauged the effects of describing an individual as having a strong work ethic. This study was conducted to affirm the associations made by individuals when they perceive someone as having a strong work ethic and serves as a baseline for study 2. Study 2 gauged the effects of describing an individual as hardworking on the same outcome variables as study 1 to determine whether a similar pattern emerges regarding the associations made when hearing someone merely described as hardworking. Study 3 adds a control condition to enhance the robustness of the findings. Amazon's Mechanical Turk (Mturk) platform was used to recruit subjects and solicit

responses for studies 1 and 2. For study 3, subjects were recruited using the alternate Prolific Academic platform.

## Study 1

Study 1 uses a between-subjects design and examines reactions to either an explicit strong ethic versus indolent vignette. Mturk was used to recruit subjects and solicit responses. Following Rand (2012), since this study is focused on a US population, Mturk was restricted to U-S based subjects. Furthermore, as recommended by Goodman et al. (2013), Qualtrics was set to accept only one response per IP address to eliminate duplicate responses by an individual using more than one Mturk account. Compensation was 35 cents per subject. The median time for participating in the study was 111 s. The corresponding wage was \$11.35 per hour.

### Procedures and Measures

Subjects were instructed to view the vignette in detail and complete the corresponding questionnaire. Subjects were first exposed to a vignette describing a wood flooring installer (Henry) characterized as either explicitly having a strong work ethic or as somewhat indolent (see appendix for comprehensive vignettes). Wood flooring was chosen as the context due to the personal relevance that home renovation would generally have to subjects and the importance of trust (desire to hire an individual with strong moral character) in professional services. The explicit strong work ethic vignette featured the following information: *Clients rave about Henry's work ethic and a former client stated on a review website that Henry worked 48 h without sleep to get the job completed on time.* Alternately, the previous sentence was replaced in the vignette with the following in the indolent description: *Clients find Henry likable but note that he casually goes about his work without any sense of urgency. On a review website, a former client stated that he was happy with the floor and the work Henry did even though it took an extra week so Henry could go deep sea fishing.* No other information was provided regarding the character of the individual in the vignette. The indolent vignette only described Henry as one who appears to enjoy his free time without any connotations of inadequacy. Hence, the indolent vignette can be described as mildly indolent. Both vignette versions ended with the client (Sarah) expressing concerns about a possible indiscretion by the installer: *Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.*

Subjects then clicked the “next” button to access the questionnaire and were not allowed to return to the vignette when answering questions. Several questions were included

to measure ethical perception of Henry. First, the questionnaire contained a single item (*What is the likelihood that Henry cheated Sarah by using cheaper materials?*) corresponding to a seven-point categorical scale ranging from (1) Very Unlikely to (7) Very Likely, which measured Henry's cheating propensity. Next, subjects were asked to respond to questions pertaining to: how honest they felt Henry was as a person (seven-point; Very Dishonest/Very Honest) and Henry's attitude toward his work (seven-point; Extremely Careless/Extremely Careful). Subjects then selected from multiple choice options (*blame the flooring manufacturer; take steps to assure that the proper materials were installed; ignore her complaints*) regarding the behavior they believed Henry would exhibit if confronted. The four single-item-dependent measures were employed as suggested by Geuens and De Pelsmacker (2017) to reduce common method bias.

Finally, questions pertaining to the manipulation check (how would you rate Henry; Very Lazy/Very Hardworking), subject religiosity, and demographic questions corresponding to gender, age, ethnicity, and income were included. Religiosity was included as a covariate since as discussed in the literature review, notions of work ethic stem from religious influence. Religiosity was measured with three items (Cronbach alpha = .86) measured on a seven-point Likert scale borrowed from Vitell et al. (2006). Additionally, to account for subjects that might not provide quality responses, an attention check (the Qualtrics timer function recorded the amount of time spent examining the vignette) was included as a covariate to control for subjects that likely did not sufficiently read and comprehend the vignette.

### Sample

Execution of the study on the Mturk platform resulted in the participation of 96 US subjects. Of the 96 subjects, 49 subjects were randomly assigned to the work ethic vignette and 47 to the indolent vignette. The sample was 66% male. Age distribution was as follows: 34% were 18–25, 39% were 26–33, 13% were 34–41, 7% were 42–49, and 7% were at least 50 years of age. The sample was 72% Caucasian, 12% Asian, 7% Multi-racial, 5% Hispanic/Latino, and 4% African-American. For income, 35% earned under \$20,000 per year, 35% earned \$20,001 to \$40,000 per year, 14% earned \$40,001 to \$60,000 per year, 9% earned \$60,001 to \$80,000 per year, 5% earned \$80,001 to \$100,000, and 2% earned greater than \$100,000 per year.

### Results

For the manipulation check, an independent sample t-test was subsequently used to examine differences in responses based upon the vignettes. Subjects rated Henry in the explicit work ethic vignette as significantly more

hardworking ( $M_{\text{work ethic}} = 5.84$ ;  $M_{\text{indolent}} = 3.53$ ) than in the indolent vignette [ $t(94) = 10.51$ ;  $p < .001$ ] providing support for the manipulation. Next, MANCOVA (See Table 1) was used to examine the effects of the manipulation on cheating propensity, honesty, and Henry's attitude toward his work while controlling for religiosity and time spent viewing the vignette. Multivariate results indicated that the manipulation (Wilk's  $\lambda = .67$ ;  $p < .001$ ) achieved multivariate significance while a significant relationship was not found between religiosity and the dependent variables (Wilk's  $\lambda = .98$ ;  $p > .58$ ). Multivariate significance was found for time spent viewing the vignette (Wilk's  $\lambda = .90$ ;  $p < .03$ ). Univariate results indicated that subjects exposed to the explicit work ethic vignette also perceived Henry as less likely to cheat Sarah ( $M_{\text{work ethic}} = 3.69$ ;  $M_{\text{indolent}} = 4.51$ ) [ $F(1, 92) = 7.67$ ;  $p < .01$ ], more honest ( $M_{\text{work ethic}} = 4.86$ ;  $M_{\text{indolent}} = 3.79$ ) [ $F(1, 92) = 17.38$ ;  $p < .001$ ], with a more careful approach to his work ( $M_{\text{work ethic}} = 5.22$ ;  $M_{\text{indolent}} = 3.62$ ) [ $F(1, 92) = 45.47$ ;  $p < .001$ ] than subjects exposed to the indolent vignette.

Cross tabulation (see Table 2) was used to examine subjects' expectations regarding behavior exhibited if Henry was confronted by Sarah about her concerns. Results indicated that subjects viewing the strong work ethic vignette projected that Henry would almost exclusively (43 out of 49 subjects) take steps to ensure that the proper materials were installed. For the indolent vignette, only 18 out of 47 projected that Henry would take proper steps to ensure proper

materials were installed. Eighteen (work ethic = 3) subjects felt that he would ignore her complaints while another 11 (work ethic = 3) felt he would blame the flooring manufacturer for the indolent vignette. The difference was significant at the .05 level [ $\chi^2(2, N=96) = 25.50$ ;  $p < .001$ ].

### Discussion

The results lend support for the pervasive notion that one's perceived work ethic has moral significance in the minds of other individuals. When people think of work ethic, they do not only think of one's hardworking nature, but also perceive someone described as having a strong work ethic as honest, careful in their approach, less likely to engage in cheating behavior, and more likely to be accountable. While study 1 established a baseline for the projected associations made about work ethic, study 2 replicates study 1 with one nuance: work ethic is changed to hardworking to see if the same associations persist when one is described merely as hardworking.

### Study 2

Study 2 uses a between-subjects design and examines reactions to either a hardworking or indolent vignette. Mturk was again used to recruit subjects and solicit responses. As in study 1, Mturk settings were restricted to US-based subjects and Qualtrics was set to accept only one response per

**Table 1** Study 1 MANCOVA results

Independent variable	Wilk's $\lambda$	<i>F</i>		<i>p</i>	
Manipulation	0.67	15.12		.000	
Time	0.90	3.23		.026	
Religiosity	0.98	0.64		.589	
Dependent		<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
What is the likelihood that Henry cheated Sarah by using cheaper materials?— Very unlikely:very likely	Work ethic	3.69	1.50	7.67	.007
	Indolent	4.51	1.23		
How honest do you feel Henry is as a person?—Very dishonest:very honest	Work ethic	4.86	1.23	17.38	.000
	Indolent	3.79	1.22		
Please rate Henry's attitude toward his work on the following scale.—Extremely careless:extremely careful	Work ethic	5.22	1.21	45.47	.000
	Indolent	3.62	1.05		

**Table 2** Study 1 cross tabulation

	He will blame the flooring manufacturer	He will take steps to assure that the proper materials were installed	He will ignore her complaints	Total	$\chi^2$	<i>p</i>
Work Ethic	3	43	3	49	25.50	.000
Indolent	11	18	18	47		
total	14	61	21	96		

IP address to eliminate duplicate responses by an individual using more than one Mturk account. Furthermore, Mturk subjects were instructed not to participate if they had participated in the first study; and subjects who participated in study 1, but ignored these instructions and also participated in study 2, were removed prior to analysis. Compensation was 35 cents per subject. The median time for participating in the study was 125 s. The corresponding wage based on median time spent was \$10.08 per hour.

### Procedures and Measures

Subjects were instructed to view the vignette in detail and complete the corresponding questionnaire. Subjects were first exposed to a vignette that either described a wood flooring installer (Henry) as hardworking or as somewhat indolent (see appendix for comprehensive vignettes). The hardworking vignette was refined only to describe Henry as hardworking and featured the following information: *Clients rave about how hard Henry works and a former client stated on a review website that Henry worked 48 h without sleep to get the job completed on time.* As in study 1, the above hardworking description was replaced in the indolent vignette with the following indolent description: *Clients note that he casually goes about his work without any sense of urgency. On a review website, a former client stated that he was happy with the floor and the work Henry did even though it took an extra week so Henry could go deep sea fishing.* The indolent description was refined only to describe Henry as having a lackadaisical approach to work. No other information was provided regarding the character of Henry in the vignette. Both vignettes again ended with the client (Sarah) expressing concerns about a possible indiscretion by the installer: *Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.*

Subjects then clicked the “next” button to access the questionnaire. First, the questionnaire contained a single item (*What is the likelihood that Henry cheated Sarah by using cheaper materials?*) corresponding to a seven-point categorical scale ranging from (1) Very Unlikely to (7) Very Likely, which measured Henry’s cheating propensity. Next, subjects were asked to respond to questions pertaining to: how honest they felt Henry was as a person (seven-point; Very Dishonest/Very Honest) and Henry’s attitude toward his work (seven-point; Extremely Careless/Extremely Careful). Subjects were then asked to select in a multiple choice format (*blame the flooring manufacturer; take steps to assure that the proper materials were installed; ignore her complaints*) the behavior Henry would exhibit if confronted by Sarah. Finally, questions pertaining to the manipulation check (how would you rate Henry; Very Lazy/Very Hardworking), an

attention check (subjects were asked to recognize the name of the person in the vignette), subject religiosity (Cronbach alpha = .89), and demographic questions corresponding to gender, age, ethnicity, and income followed. Time spent viewing the vignette was again included as a covariate to control for attention.

### Sample

One hundred subjects were recruited for participation from the Mturk platform. To further ensure quality responses, subjects were removed based upon prior participation in the first experiment or failure of the attention check. First, after comparing Mturk IDs to the list of IDs from study 1, it was evident that nine subjects had previously participated and were removed. Next, five subjects failed to identify the correct name of the individual in the vignette (four names were randomly presented: Charles, Henry, Michael, and James) and were removed from the sample. In sum, this resulted in the removal of 14 subjects and a usable sample of 86 subjects. Of the 86 subjects, 42 subjects were randomly assigned to the hardworking vignette and 44 to the indolent vignette. The sample was 56% male. The age distribution was as follows: 30% were 18–25, 34% were 26–33, 17% were 34–41, 8% were 42–49, 5% were 50–57, and 6% were 58 or older. The sample was 79% Caucasian, 14% Asian, 5% Hispanic/Latino, and 2% African-American. For income, 31% earned under \$20,000 per year, 30% earned \$20,001 to \$40,000 per year, 15% earned \$40,001 to \$60,000 per year, 13% earned \$60,001 to \$80,000 per year, 10% earned \$80,001 to \$100,000, and 1% earned greater than \$100,000 per year.

### Results

For the manipulation check, an independent sample t-test was used to examine differences in responses based upon the divergent vignettes. Subjects rated Henry in the hardworking vignette as significantly more hardworking ( $M_{\text{hardworking}} = 5.71$ ;  $M_{\text{indolent}} = 3.57$ ) than in the indolent vignette [ $t(84) = 6.66$ ;  $p < .001$ ] providing support for the manipulation. Next, MANCOVA (see Table 3) was used to examine the effects of the manipulation on cheating propensity, honesty, and Henry’s attitude toward his work while controlling for religiosity and time spent viewing the vignette. Multivariate results indicated that the manipulation (Wilk’s  $\lambda = .74$ ;  $p < .001$ ) achieved multivariate significance, while a significant relationship was not demonstrated for religiosity (Wilk’s  $\lambda = .93$ ;  $p > .11$ ) nor time spent viewing the vignette (Wilk’s  $\lambda = .98$ ;  $p > .70$ ). Univariate results indicated that subjects exposed to the hardworking vignette perceived Henry as less likely to cheat Sarah ( $M_{\text{hardworking}} = 3.36$ ;  $M_{\text{indolent}} = 4.09$ ) [ $F(1, 82) = 6.42$ ;  $p < .02$ ], as more honest ( $M_{\text{hardworking}} = 5.07$ ;  $M_{\text{indolent}} = 4.02$ ) [ $F(1, 82)$

**Table 3** Study 2 MANCOVA results

Independent Variable	Wilk's $\lambda$			<i>F</i>	<i>p</i>	
Manipulation	0.74			9.57	.000	
Time	0.98			0.46	.710	
Religiosity	0.93			2.05	.114	
Dependent			<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
What is the likelihood that Henry cheated Sarah by using cheaper materials?— Very unlikely:very likely	Hardworking		3.36	1.25	6.42	0.013
	Indolent		4.09	1.40		
How honest do you feel Henry is as a person?—Very dishonest:very honest	Hardworking		5.07	1.07	16.59	0.000
	Indolent		4.02	1.37		
Please rate Henry's attitude toward his work on the following scale.—extremely careless:extremely Careful	Hardworking		5.26	1.40	26.76	0.000
	Indolent		3.52	1.80		

= 16.59;  $p < .001$ ], and with a more careful approach to his work ( $M_{\text{hardworking}} = 5.26$ ;  $M_{\text{indolent}} = 3.52$ ) [ $F(1, 82) = 26.76$ ;  $p < .001$ ] than subjects exposed to the indolent vignette.

Cross tabulation (see Table 4) was again used to examine subjects' projections regarding the potential behavior Henry would exhibit if Sarah confronted him with her concerns. Results indicated that subjects exposed to the hardworking vignette projected that Henry would almost exclusively (38 out of 42 subjects) take steps to ensure that the proper materials were installed. Regarding the indolent vignette, only 23 out of 44 projected that Henry would take steps to ensure the proper materials were installed. For the indolent vignette, an additional 10 (hardworking = 0) subjects felt that he would ignore her complaints while another 11 (hardworking = 4) felt he would blame the flooring manufacturer. The difference was significant at the .05 level [ $\chi^2(2, N=86) 16.92$ ;  $p < .001$ ]. The results overwhelmingly support the hypothesis that hardworking perceptions affect moral character evaluations.

### Discussion

The results lend support for the moral significance that describing someone as hardworking has in the minds of individuals. The results further indicate that when a person is described as hardworking, the associations made mirror the work ethic results from study 1. When people think of a person as hardworking, they do not only think of how

much effort one puts into their work, but they also perceive a hardworking individual as more honest, careful in his/her approach, less likely to engage in cheating behavior, and more likely to be accountable. Study 3 examines these effects using a control condition.

### Study 3

Study 3 replicates study 2, but with an added control condition. The experiment was conducted using Qualtrics, which was set to accept only one response per IP address to eliminate duplicate responses. For this study, subjects were recruited from the Prolific Academic crowdsourcing platform. Prolific Academic, a UK-based platform, is created by academics and dedicated to the sole purpose of conducting research (Gleibs 2016). Compared to participants on MTurk, participants from Prolific Academic are more naïve to common research tasks, more honest, and more diverse (Peer et al. 2017). We prescreened the participant pool using the following two requirements: subjects older than 18 and residing in the USA. We limited the respondents to US residents so the results from three studies can be better compared. Each participant received £0.30 (approximately \$0.38). The median completion time was 2 min so the corresponding wage was £9.00 per hour (approximately \$11.50). Data from Prolific Academic were collected April 2017.

**Table 4** Study 2 cross tabulation

	He will blame the flooring manufacturer	He will take steps to assure that the proper materials were installed	He will ignore her complaints	Total	$\chi^2$	<i>p</i>
Hardworking	4	38	0	42	16.92	.000
Indolent	11	23	10	44		
Total	15	61	10	86		



### Procedures and Measures

Study 3 has three vignettes. The hardworking vignette and the indolent vignette are exactly the same as those used in study 2. A control condition was added where Henry is described as neither hardworking nor indolent: “*On a review website, customers neither complain nor rave about how hard Henry works*”. No other information was provided regarding the Henry’s character in the vignette. All three vignettes again ended with the client (Sarah) expressing concerns about a possible indiscretion by the installer: *Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.*

Similar to the previous studies, the subjects were then asked about their perceptions regarding Henry’s cheating propensity, honesty, attitude toward work, and the behavior that Henry would exhibit if confronted by Sarah. To account for any sequencing effects, these four questions were presented in random fashion using the Qualtrics question randomization feature. Finally, study 3 includes all questions pertaining to the manipulation check, attention check, control variables [impulsivity (Cronbach’s alpha = .83) and religiosity (Cronbach’s alpha = .79)] and the demographic information contained in study 2. Subject impulsivity was included as an additional control variable since prior research demonstrates a negative relationship between impulsivity, PWE (e.g., Mirels and Darland 1990), and ethical conduct (e.g., Arneklev et al. 1993; Gino et al. 2011). Research has also demonstrated a positive relationship between impulsivity and sympathy (Derryberry and Rothbart 1997). Hence, it is reasonable to conjecture that subject impulsivity may affect reactions to the vignettes. The impulsivity scale was borrowed from Shiv and Fedorikhin (1999) who adapted the three-item Likert scale (impulsive, careless, easily tempted) from Puri (1996).

### Sample

One hundred and fifty subjects were recruited for participation from the Prolific Academic platform. Five subjects failed to identify the correct name of the individual in the vignette, therefore, these responses were rejected by the authors and Prolific Academic replaced these with five new responses. Although Qualtrics was set to accept one IP address only, two pairs of responses still had the same IP addresses. All four responses were removed. In sum, this resulted in a useful sample of 146 subjects. The sample was 51% male. The age distribution was as follows: 33% were 18–25, 39% were 26–33, 15% were 34–41, 7% were 42–49, 3% were 50–57, and 3% were 58 or older. The sample was 76% Caucasian, 9% Asian, 6% Hispanic/Latino, 6% African-American and 4% multi-racial. For income, 32% earned

under \$20,000 per year, 25% earned \$20,001 to \$40,000 per year, 18% earned \$40,001 to \$60,000 per year, 14% earned \$60,001 to \$80,000 per year, 6% earned \$80,001 to \$100,000, and 5% earned greater than \$100,000 per year.

### Results

Of the 146 subjects, 46 subjects were randomly assigned to the hardworking vignette, 52 to the indolent vignette, and 48 to the control vignette. For the manipulation check, ANOVA was used to examine differences in responses based upon the three vignettes and results demonstrated overall significance [ $F(2, 143) = 57.79; p < .001$ ]. Subjects rated Henry in the hardworking vignette as significantly more hardworking than in the control vignette ( $M_{\text{hardworking}} = 5.74; M_{\text{control}} = 4.38$ ) and Henry in control vignette was rated more hardworking than in the indolent vignette ( $M_{\text{control}} = 4.38; M_{\text{indolent}} = 3.27$ ). Fisher’s LSD Post-hoc test showed that both differences are significant ( $p$ -values  $< .001$ ), providing support for the manipulation.

Next, MANCOVA (see Table 5) was used to examine the effects of the manipulation on cheating propensity, honesty, and Henry’s attitude toward his work while controlling for religiosity, impulsivity, and time spent viewing the vignette. Multivariate results indicated that the manipulation (Wilk’s  $\lambda = .75; p < .001$ ) achieved multivariate significance. Regarding the covariates, multivariate significance was achieved for religiosity (Wilk’s  $\lambda = .94; p < .03$ ) and time spent viewing the vignette (Wilk’s  $\lambda = .94; p < .04$ ), while multivariate significance was not found for impulsivity (Wilk’s  $\lambda = .99; p > .66$ ). For the covariates, a significant relationship was found for religiosity and all three dependent variables ( $p$ -values ranged from .005 to .023), whereas only a significant relationship was found between vignette viewing time and honesty rating ( $p < .02$ ).

While controlling for the covariates, overall univariate results indicated that subjects exposed to the hardworking vignette perceived Henry as less likely to cheat Sarah ( $M_{\text{hardworking}} = 3.35; M_{\text{control}} = 4.13; M_{\text{indolent}} = 4.40$ ) [ $F(2, 140) = 11.86; p < .001$ ], as more honest ( $M_{\text{hardworking}} = 4.78; M_{\text{control}} = 4.17; M_{\text{indolent}} = 3.79$ ) [ $F(2, 140) = 11.63; p < .001$ ], and with a more careful approach to his work ( $M_{\text{hardworking}} = 4.89; M_{\text{control}} = 4.00; M_{\text{indolent}} = 3.17$ ) [ $F(2, 140) = 22.09; p < .001$ ] than subjects exposed to the control or indolent vignette, respectively. Simple contrasts were computed to determine whether the control condition was significantly different than both the hardworking and indolent conditions. Results indicate that the control condition was significantly different across all three dependent variables ( $p$ -values ranged from .000 to .049) for all contrasts except one. For honesty, the control condition was marginally different ( $p < .07$ ) than the indolent condition. Table 5 shows the full results for study 3.

**Table 5** Study 3 MANCOVA Results

Independent Variable	Wilk's $\lambda$	<i>F</i>			<i>p</i>
Manipulation	0.75	7.22			.000
Time	0.94	3.04			.031
Religiosity	0.94	3.18			.026
Impulsivity	0.99	0.53			.660
Dependent	Manipulation	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
What is the likelihood that Henry cheated Sarah by using cheaper materials?— very unlikely:very likely	Hardworking	3.35	1.37	11.86	.000
	Control	4.13	0.98		
	Indolent	4.40	1.02		
How honest do you feel Henry is as a person?—Very dishonest:very honest	Hardworking	4.78	1.47	11.63	.000
	Control	4.17	1.00		
	Indolent	3.79	0.98		
Please rate Henry's attitude toward his work on the following scale.—Extremely careless: extremely careful	Hardworking	4.89	1.74	22.09	.000
	Control	4.00	1.01		
	Indolent	3.17	1.10		
Contrast	Dependent	Contrast Estimate			<i>p</i>
<i>Simple Contrasts</i>					
Hardworking versus control	Cheating propensity	−0.64			.007
	Honesty	0.44			.066
	Carefulness	0.74			.008
Indolent versus control	Cheating propensity	0.47			.049
	Honesty	−0.65			.007
	Carefulness	−1.02			.000

To examine subjects' projections regarding the potential behavior Henry would exhibit if Sarah confronted him with her concerns, cross tabulation (see Table 6) was again used. Results indicated that subjects exposed to the hardworking vignette projected that Henry would almost exclusively (38 out of 46 subjects) take steps to ensure that the proper materials were installed. For the indolent vignette, only 12 out of 52 projected that Henry would take steps to ensure the proper materials were installed. For the control condition, 22 out of 48 estimated that Henry would take steps to ensure the proper materials were installed. For the hardworking vignette, 5 subjects projected that Henry will blame the flooring manufacturing in contrast to 24 subjects for the indolent vignette and 16 subjects for the control vignette. The difference was significant at the 0.05 level [ $\chi^2$

(4,  $N=146$ ) = 34.98;  $p < .001$ ]. Overall, study 3 results provide further support for the hypothesis that describing one as hardworking enhances ethical perceptions.

### Discussion

The third study reinforces the perceived moral significance of hardworking. Further, the inclusion of the control condition provided additional insight into the absolute nature of the relationship between hardworking and perception of one's moral character. Across all dependent variables, the control condition led to mid-point subject ratings. Character ratings of Henry in the control condition was significantly lower than the hardworking condition for all dependent variables (cheating likelihood, honesty, attitude toward work,

**Table 6** Study 3 cross tabulation

	He will blame the flooring manufacturer	He will take steps to assure that the proper materials were installed	He will ignore her complaints	Total	$\chi^2$	<i>p</i>
Hardworking	5	38	3	46	34.98	.000
Control	16	22	10	48		
Indolent	24	12	16	52		
Total	45	72	29	146		

and behavior if confronted) and significantly higher than the indolent condition on all dependent variables except honesty (marginally significant). A discussion of the findings from the three studies and the implications subsequently follows.

## Discussion and Conclusions

The results from the three studies provide evidence for the illusory correlations associated with hardworking as a moral signifier. In study 1, a baseline was established for the positive effects that describing someone as having a strong work ethic has on judgments about one's moral character. Study 2 demonstrated that merely describing someone as hardworking produced similarly favorable evaluations of one's moral character. With the addition of a control condition, this pattern emerged again in study 3, which augmented studies 1 and 2 by providing evidence for the continuum-like pattern of the indolent-hardworking dichotomy. An indolent descriptor detracted from judgments about one's moral character while a hardworking descriptor enhanced such judgments. The findings make several theoretical and practical contributions as subsequently discussed.

### Theoretical Contribution

Heuristics in making judgments about others is an area of research permeated with profound effects on how individuals view and treat other people. While such research has largely focused on the use of heuristics to make assumptions about individuals based upon race or group affiliation (e.g., social stereotyping) and typically has examined the effects from a negative valence (Biernat 2003), this research extends the seminal theoretical underpinnings to uncharted territory. Past research has established illusory correlation effects as a foundation for explaining the social stereotyping phenomenon and the assumptions made as a result of fundamental cognitive processes (e.g., Hamilton and Gifford 1976; Schaller and Maass 1989; Stroessner and Sherman 2015). This research contributes to the illusory correlation body of research by examining it in a morality judgment context. This research also further adds to the body of researching showing that a single instance or piece of information can facilitate illusory correlations (e.g., Risen et al. 2007).

Next, this paper extends research on PWE. While extant research has investigated the dimensions of PWE, developed measures for PWE, and examined how levels of PWE relate to certain values and behaviors, this study contributes to the PWE literature by demonstrating how PWE as a cultural value provides a mental heuristic for judging the morality of others. Such an examination uniquely extends research on the influence of cultural values on judgments and decision-making, and in particular, provides much needed research

on the role culture plays (Robertson and Fadil 1999) in the judgments about others' morality. Often, when individuals make judgments based on developed intuitions, they feel they are making correct judgments without reflecting on the source of the intuition and the likelihood of error (Narvaez 2010). PWE's influence on US culture is evident in societal praise for those that are perceived to work hard (Mazzetti et al. 2014), yet individuals with workaholic tendencies may be prone to dishonesty and ethical deterioration (Fry and Cohen 2009; Galperin and Burke 2006; Scottl et al. 1997), negatively affecting a firm financially (Clark et al. 2016). This research highlights an important insight into judgments and that intuition-based inferential rules may lead to errors about the simplest judgments regarding everyday events (Nisbett and Ross 1980).

### Implications for Practice

The study of heuristics can aid in the understanding of how cultural forces in the environment influence judgments and decisions and how to modify them to make better decisions (Gigerenzer 2008). An important element of this research is its implications for the business environment. A primary finding of this research is that individuals may make undue judgments about one's moral character merely based upon the perceived hardworking nature of an individual. This is problematic since as demonstrated in an accounting context (Ostwalt et al. 2011), individuals perceived as model employees based upon their work habits are just as likely to be perpetrators of fraud. According to the 2016 Global Fraud Study conducted by the Association of Certified Fraud Examiners, a typical corporation loses 5% of its annual revenues to fraud (ACFE 2016). The use of intuition-based judgments of one's moral character may confound one's ability to scrutinize potential perpetrators of fraud, or other deviant workplace behaviors, negatively affecting the bottom line.

Businesses are no more ethical than the people who comprise the business and the appropriate judgment of others is an integral aspect of business ethics (Lewis 1985). Most people depend on cultural notions when making judgments about others and their potential to do right or wrong (Hamilton and Sherman 1996; Lewis 1985; Sanbonmatsu et al. 1987). The ascribed potential systematic bias based on PWE's influence could lead management and administration to scrutinize perceived hardworking individuals less than their peers, and thus fraudulent or other deviant workplace behaviors could go undetected. It is not only important to understand the psychology of those committing fraud or other deviant acts but also the psychology of those responsible for governance (Ramamoorti 2008). The fact that many people committing accounting fraud are often trusted within the organization (Ostwalt et al. 2011; Zulfikar 2012) suggests that the psychology of those responsible

for governance may pose issues in line with the results of this study. When attempts at impartial judgments are made, those judgments are still subject to systematic bias (e.g., Callahan 2007; Narvaez 2010; Uhlmann et al. 2011). For instance, narcissism is not only positively associated with a hardworking achievement orientation (Soyer et al. 1999) and workaholism (e.g., Andreassen et al. 2012), but also unethical conduct (Grijalva and Harms 2014). Based on this research, an individual that possesses both narcissistic traits and poor moral character may be able to send signals to upper management, through their hardworking nature, to gain trust and reduce any scrutiny due to the illusory correlations associated with hardworking.

A primary practical implication of this study supports the critical importance of detecting unethical acts in the workplace. As in other heuristic research, this study offers an explanation of moral judgments and also provides a foundation for the modification of actions to improve decision-making (Gigerenzer 2008). Organizations can learn to detect the undue bias of imputing moral character to an employee who is perceived to be hardworking and thus avoid, for example, improper or unfair employee appraisals, promotions or terminations; such practices may raise issues of procedural injustice (Folger 1987). Greater efforts are needed to train managers to be aware of their systematic biases and of the totality of signals that may indicate one is operating at a less than ideal ethical decision-making level. A benefit of such training could result in quicker detection and inhibition of activity that may be deviant/fraudulent. Readily available reference materials such as the KPMG red flag checklist may further guide managers in more objectively evaluating personnel and potential deviant workplace behavior. In line with the work of Hayibor and Wasieleski (2009), workplace-training scenarios may enhance retrieval ease when evaluating a workplace situation. Prior research has suggested the use of training scenarios as a means to overcoming perceptual biases in management's judgments and decisions (Corsun et al. 2006).

Supporting the practical value of employing workplace training scenarios to help individuals overcome perceptual biases in the workplace, the work of Devine et al. (2012), in the context of reducing race discrimination, suggests that intervention training can produce long-term reductions in implicit bias (unbeknownst to affected individuals, systematic biases that affect judgments and decisions). However, the findings also indicate that overcoming bias require substantial effort and more than a one-time intervention. Thus, they recommend the administration of a habit-breaking approach to help individuals overcome perceptual biases in the workplace. Interventions should focus on creating awareness of the bias, developing concern about the effects of the bias, and teaching the application of strategies to reduce the bias. This approach has been championed as providing

great promise in alleviating the effects of implicit biases (Alfano 2016). Accordingly, the work of Devine et al. (2012) may promisingly serve as a framework for developing training scenarios to mitigate the use of hardworking as a moral heuristic.

### Limitations and Future Research

Despite the merits of this research, limitations should be prudently considered when forming conclusions from the present findings. First, the three conducted studies result in cross-sectional data from convenience samples. Hence, results indicate that the ascribed phenomenon can plausibly occur, but further research using more diverse samples should be conducted to warrant broad generalizations. For instance, disparate findings regarding the religiosity covariate between the first two studies and study three may warrant further investigation. A frequency analysis of responses indicated that religiosity responses for the Prolific Academic sample was much more normally distributed, possibly accounting for the differences. Next, while the manipulations in this study were effective at inducing the desired effect, the manipulations may be further refined. In addition, though the results were robust when controlling for subject religiosity and impulsivity, other covariates and potential boundary conditions should be explored. Recent research has examined the dimensions of work ethic associated with PWE in Western and non-Western populations (McMurray and Scott 2013; Zulfikar 2012) and noted differences among populations. Hardworking as a moral heuristic may vary across populations in a systematic manner. Moreover, case research on the phenomenon could shed light into real-world conditions affecting judgments made based upon one's perceived hardworking nature.

### Conclusion

The findings from this research indicate that how hardworking one is perceived plausibly affects judgments others make about the individual's overall moral character. Further validation of the findings in the research would indicate that steps should possibly be taken to aid management in recognizing and accounting for such biases as purported in this paper. While accounting firms such as KPMG have created checklists which potentially aid in the identification of fraudulent individuals regardless of their hardworking nature, a more pervasive effort may be needed to overcome natural human tendencies to use mental heuristics in evaluating one's moral character and improve management's ability to better detect potential deviant/fraudulent actions.

### Compliance with ethical standards

**Ethical approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed consent** Informed consent was obtained from all individual participants included in the study.

## Appendix

### Study 1 Vignettes

#### *Strong Work Ethic*

Henry started his “A Touch of Nature” wood flooring business in 2008. Clients rave about Henry’s work ethic and a former client stated on a review website that Henry worked 48 h without sleep to get the job completed on time. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.

#### *Indolent*

Henry started his “A Touch of Nature” wood flooring business in 2008. Clients find Henry likable but note that he casually goes about his work without any sense of urgency. On a review website, a former client stated that he was happy with the floor and the work Henry did even though it took an extra week so Henry could go deep sea fishing. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.

### Study 2 Vignettes

#### *Hardworking*

Henry started his “A Touch of Nature” wood flooring business in 2008. Clients rave about how hard Henry works and a former client stated on a review website that Henry worked 48 h without sleep to get the job completed on time. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might

have used cheaper materials instead of the high-end materials that she paid for.

#### *Indolent*

Henry started his “A Touch of Nature” wood flooring business in 2008. Clients note that he casually goes about his work without any sense of urgency. On a review website, a former client stated that he was happy with the floor and the work Henry did even though it took an extra week so Henry could go deep sea fishing. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.

### Study 3 Vignettes

#### *Hardworking*

Henry started his “A Touch of Nature” wood flooring business in 2008. Clients rave about how hard Henry works and a former client stated on a review website that Henry worked 48 h without sleep to get the job completed on time. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.

#### *Indolent*

Henry started his “A Touch of Nature” wood flooring business in 2008. Clients note that he casually goes about his work without any sense of urgency. On a review website, a former client stated that he was happy with the floor and the work Henry did even though it took an extra week so Henry could go deep sea fishing. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.

#### *Control*

Henry started his “A Touch of Nature” wood flooring business in 2008. On a review website, customers neither complain nor rave about how hard Henry works. Recently, Henry installed a wood floor for a client named Sarah. Initially, Sarah was happy with the installed flooring but she recently has become concerned that Henry might have used cheaper materials instead of the high-end materials that she paid for.

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