

A Social Cognitive Perspective on the Relationships Between Ethics Education, Moral Attentiveness, and PRESOR

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Abstract This research examines the relationships between education in business ethics, Reynolds's (J Appl Psychol 93:1027–1041, 2008) "moral attentiveness" construct, or the extent to which individuals chronically perceive and reflect on morality and moral elements in their experiences, and Singhapakdi et al.'s (J Bus Ethics 15:1131–1140, 1996) measure of perceptions of the role of ethics and social responsibility (PRESOR). Education in business ethics was found to be positively associated with the two identified factors of moral attentiveness, "reflective" and "perceptual" moral attentiveness, and with the PRESOR "stakeholder view" factor. Also, reflective moral attentiveness was found to act as a mediator in the relationship between education in business ethics and the PRESOR stakeholder view factor. Evidence of gender and social desirability bias effects was also found. The implications of these relationships and social cognitive theory for improved understanding of the mechanisms by which a variety of variables have their effects on PRESOR in business are discussed.

Keywords Business ethics · Corporate social responsibility · Ethics education · Moral attentiveness · Social cognitive theory

Abbreviation

PRESOR Perceived role of ethics and social responsibility

Introduction

The question of whether businesses have responsibilities that extend beyond lawfully making profits for their shareholders remains one of the central issues in business ethics (Argandona 1998; Carroll and Buchholtz 2009; Carson 1993; Garriga and Melé 2004; Steiner and Steiner 2009; Velasquez 1996; Wheelen and Hunger 2010). On the one hand, the "stockholder" view argues that firms should focus solely on improving the financial welfare of the firm's owners and that the use of resources for any other purpose detracts from firm efficiency and social welfare (Carson 1993; Friedman 1962, 1970; London 1993). In contrast, the "stakeholder" view argues that, in addition to their economic and legal responsibilities, firms have ethical and discretionary responsibilities to protect the welfare of a broad range of entities with which they have mutual relationships (Argandona 1998; Carroll 1979, 1991, 2004; Donaldson and Preston 1995; Freeman 1984; Preston and Sapienza 1990; Velasquez 1996). According to the stakeholder view, fulfilling ethical and discretionary responsibilities is not only a moral duty of the firm and necessary for the welfare of society but also essential for the firm to avoid withdrawal of support from key stakeholders and

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imposition of regulations by governments that would reduce firm efficiency and financial performance (Carroll 1979, 1991, 2004).

Much of the debate over whether the stockholder or stakeholder view should be adopted in business centers on whether ethics and social responsibility are compatible with efficiency, competitiveness, and profitability. Arguing that key decision makers must first perceive ethics and social responsibility to be important to organizational effectiveness before their behaviors will become more ethical and reflect greater social responsibility, Singhapakdi et al. (1996) developed a measure of “perceptions of the role of ethics and social responsibility” (PRESOR). The PRESOR measure has become an important construct in studies of ethics and corporate social responsibility (CSR). Arguing that business students are the managers and business professionals of the future, that understanding the development of their views during the critical formative stage in their careers while in college is important, and that many upper division undergraduate and graduate students have sufficient education and experience to make many issues, including the items on the PRESOR scale personally relevant to them, numerous studies, including the work by Singhapakdi et al. (1996) in originally developing the PRESOR scale, have used samples of business students to examine associations between PRESOR and a variety of factors thought to play a role in determining perceptions of the importance of ethics and social responsibility in business, including age, gender, college major, ethics education, work experience, exposure to relevant current events, cultural background, and personal moral philosophies (Ahmed et al. 2003; Ang and Leong 2000; Axinn et al. 2004; Elias 2004; Etheredge 1999; Marta et al. 2000; Shafer et al. 2007; Singhapakdi et al. 1996). These studies have provided important insights about associations and potential determinants of PRESOR, which I review in later sections of this article, but much work remains, including examination of potential underlying reasons for some of the associations identified in prior studies.

The present research seeks to begin addressing this need for improved understanding of the variables and mechanisms involved in determining PRESOR. In particular, this research examines associations between business student PRESOR in business and their individual levels of “moral attentiveness,” a recently identified construct that represents “the extent to which an individual chronically perceives and considers morality and moral elements in his or her experiences” (Reynolds 2008, p. 1027). To my knowledge, the present research is the first to use the moral attentiveness construct. In addition to examining the direct relationship between PRESOR and moral attentiveness, the present research examines whether moral attentiveness appears to mediate the link between students having had

education in business ethics and their PRESOR views. Thus, the present research not only answers calls for improved understanding of which variables are associated with PRESOR (Axinn et al. 2004; Elias 2004; Shafer et al. 2007; Singhapakdi et al. 1996; Vitell et al. 2010) but also examines a key mechanism by which ethics education is likely to have its effects on PRESOR. Importantly, as I will discuss in later sections, the moral attentiveness construct has the potential to act as a mediator for a broad range of variables thought to be determinants of PRESOR, besides ethics education, including culture, experience, and exposure to a variety of stimuli, and is therefore a personal factor of potentially very significant importance in the study of variables affecting PRESOR.

Besides these contributions, the present research also answers the call for research on potential determinants of moral attentiveness (Reynolds 2008) by examining the relationship between this recently identified construct and one of its potential determinants, education in business ethics. This investigation opens the door to consideration of the possibility that beyond providing tools and improved capabilities in areas such as moral reasoning, as suggested by theories of cognitive moral development (CMD) (Kohlberg 1981; Rest 1986), one of the primary benefits of ethics education may be that it increases accessibility of moral cognitive frameworks in students, influencing their behaviors and opinions according to mechanisms suggested by theories of social cognition (Bandura 1986; Fiske and Taylor 1991).

Additionally, the present research makes a number of technical contributions to the study of PRESOR and ethics research in general. For example, a unique feature of this research is that it is the first investigation of PRESOR, to my knowledge, that controls for social desirability bias, which can dramatically influence empirical work involving ethical issues. This study not only uses preventive techniques, such as assuring respondents that there are no right or wrong answers on the surveys and that their responses are completely anonymous, to reduce respondent inclinations to provide socially desirable responses but also includes a highly efficient 5-item scale provided by Hays et al. (1989) to help control for the effects of any social desirability bias that may occur. I believe the present research is the first study of ethics and social responsibility to control for social desirability bias using the 5-item scale provided by Hays et al. (1989). Given the considerable threat this bias poses in ethics research and the simultaneous need to keep questionnaires brief, introduction of the use of this particular tool for measuring social desirability bias in ethics research represents a contribution of the present study. Further, the present study’s use of techniques to control and detect common method variance (Podsakoff et al. 2003), which poses a potential threat in ethics

research based on self-report instruments, is uncommon in research on PRESOR and represents a contribution. Finally, this research provides additional evidence concerning the dimensionality and validity of the PRESOR and moral attentiveness scales, consistent with the notion that scale validation should be a continuous process (Churchill 1979). In sum, given the importance of the PRESOR construct in research on business ethics and social responsibility, the present research provides a number of potentially important insights.

The following section provides a brief overview of the stockholder versus stakeholder views on ethics and CSR. This is followed by discussions of PRESOR, moral attentiveness, and ethics education. The next section develops the hypotheses about the relationships between ethics education, moral attentiveness, and PRESOR, drawing heavily on social cognitive theory. The methods and results of the empirical study are then presented, followed by discussions of the findings, implications, and directions for future research.

The Stockholder Versus Stakeholder View of the Firm

The “stockholder” view of the firm (e.g., Friedman 1962, 1970) argues that firms are most socially responsible when they maximize profits while operating within the law, because an “invisible hand” will direct economic activity to maximize social welfare (Smith 1776/1937). The stockholder view has been the dominant perspective in classical economic theory and among business students and managers for over two centuries of American history. Among the most ardent, recent proponents of the stockholder view is conservative economist and Nobel laureate Milton Friedman who has argued that:

There is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud... Few trends could so thoroughly undermine the very foundations of our society as the acceptance by corporate officials of social responsibility other than to make as much money for their stockholders as possible. This is a fundamentally subversive doctrine. (Friedman 1962, p. 133)

According to Friedman, managers are compromising what should be their sole objective of making money efficiently for their employers, the stockholders, when they misapply business resources to social projects that owners may not even support. Friedman further contends that even if the costs of social projects are passed on to the

consumers, the net results are distortion of the market’s allocation mechanism and “taxation without representation,” since managers are not elected officials who represent consumer interests (Friedman 1970).

In contrast, the “stakeholder” view argues that firms have responsibilities that extend beyond lawfully making profits for the owners. According to the stakeholder view, firms are social entities that sit at the center of an array of mutual relationships with a diverse group of other entities, including governments, communities, employees, customers, creditors, competitors, future generations, the natural environment, etc., as well as stockholders, and therefore have responsibilities for the welfare of all these entities (e.g., Donaldson and Preston 1995; Freeman 1984; Post et al. 2002).

Advocates of the stakeholder view justify their position using two arguments. First, they argue that firms have a moral duty to ensure the welfare of all their stakeholders, not only that of stockholders (Donaldson and Preston 1995; Freeman 1984). Second, they argue that by acting in a socially responsible manner toward all their stakeholders, firms can enhance their performance through such outcomes as more motivated employees (Turner and Greening 1997), loyal customers (Carroll and Buchholtz 2009), innovative products and processes (Carroll and Buchholtz 2009; Harman and Stafford 1997), improved reputation (Barney and Hansen 1994; Fombrun 2001), and supportive communities (Kotler and Lee 2005; Muirhead et al. 2002), as well as through avoidance of oppressive regulations that can be imposed when businesses fail to voluntarily take sufficient socially responsible actions (Carroll 1979, 1991, 2004).

There is an expanding body of research indicating that firms whose actions are consistent with the stakeholder view are at least as profitable, and often more so, than firms whose actions are more consistent with the stockholder view (Orlitzky et al. 2003; Margolis and Walsh 2003). And, although the stakeholder view is a relatively recent perspective on how business should be conducted (Bowen 1953), versus the stockholder view (Smith 1776/1937), it is widely discussed in business schools and seems to be gaining traction with business executives (McKinsey Quarterly 2006; The Economist 2008). However, the stockholder view remains the dominant perspective among many business students and managers and this view is also supported by a significant body of research indicating either a mixed, inconclusive, or negative relationship between firm financial performance and actions that are consistent with the stakeholder view (Aupperle et al. 1985; Laffer et al. 2005; McWilliams and Siegel 2000).

PRESOR

According to Singhapakdi et al. (1996), the importance of stakeholders to the firm and the establishment of

deontological norms in organizations, as well as whether or not ethical problems are even perceived, are all likely to be determined by perceptions of the importance of ethics and social responsibility to organizational success among key decision makers. Thus, developing and validating a reliable scale to measure such perceptions is an important issue. Building on the foundation of the Organizational Effectiveness Menu developed by Kraft and Jauch (1992), Singhapakdi et al. (1996) developed the PRESOR scale consisting of the 13 items shown in Table 1. While the dimensionality of the PRESOR scale has differed somewhat from study to study, the scale's factors generally include dimensions that can be categorized according to a stockholder/stakeholder view dichotomy (Shafer et al. 2007).

Since its development, a number of studies have examined the relationships between different personal and situational variables and perceptions of ethics and social responsibility using the PRESOR scale. For example, using samples of practicing managers enrolled in part-time MBA programs in the US and China, Shafer et al. (2007) found a significant positive relationship between "conformity" personal values and a measure of the PRESOR stakeholder view and a significant negative relationship between "tradition" personal values and a measure of the PRESOR stockholder view using the Schwartz (1992, 1994) values instrument and PRESOR stockholder/stakeholder view measures. They also found significant cross-national differences in particular PRESOR items, but these differences were not consistent within or across PRESOR dimensions. In contrast, a number of studies have found significant

cross-national differences in PRESOR items that are consistent within scale dimensions (Ahmed et al. 2003; Ang and Leong 2000; Axinn et al. 2004; Marta et al. 2000). For example, Axinn et al. (2004) found evidence of significant cross-national differences in PRESOR stockholder/stakeholder perspectives held by MBA students from the US versus Malaysia versus the Ukraine. Ang and Leong (2000) found lower perceptions of the importance of ethics and social responsibility among undergraduate business students studying in Hong Kong versus Singapore using the PRESOR measure. And, in a large-sample study involving business students from six countries, including China, Egypt, Finland, Korea, Russia, and the US, Ahmed et al. (2003) found significant cross-national differences in perceptions of ethics and social responsibility. In a US-based longitudinal study, Elias (2004) found significant increases in undergraduate and graduate business student perceptions of the importance of ethics and social responsibility after media publicity of high-profile corporate scandals. Consistent with findings by Borkowski and Urgan (1998) in a meta-analytic analysis of previous studies of business ethics involving students, Elias (2004) also found evidence that female students exhibit greater sensitivity for ethics and social responsibility versus male students.

Moral Attentiveness

Reynolds (2008) developed the moral attentiveness construct, which he defined as "the extent to which an individual chronically perceives and considers morality and

Table 1 PRESOR items and factor analysis results

Items	Factor loadings
Stakeholder view, Factor 2 ($\alpha = 0.85$)	
1. Social responsibility and profitability can be compatible	0.47
2. Good ethics is often good business	0.59
3. Being ethical and socially responsible is the most important things a firm can do	0.77
4. A firm's first priority should be employee morale	0.66
5. The ethics and social responsibility of a firm is essential to its long-term profitability	0.79
6. The overall effectiveness of a business can be determined to a great extent by the degree to which it is ethical and socially responsible	0.77
7. Business ethics and social responsibility are critical to the survival of a business enterprise	0.76
8. Business has social responsibility beyond making a profit	0.58
Stockholder view, Factor 1 ($\alpha = 0.79$)	
1. To remain competitive in a global environment, business firms will have to disregard ethics and social responsibility	0.61
2. If survival of a business enterprise is at stake, then you must forget about ethics and social responsibility	0.73
3. The most important concern for a firm is making a profit, even if it means bending or breaking the rules	0.84
4. Efficiency is much more important to a firm than whether or not a firm is seen as ethical or socially responsible	0.73
5. If the stockholders are unhappy, nothing else matters	0.66

moral elements in his or her experiences,” to help explain individual differences in the amount of attention paid to morality and moral matters. Moral attentiveness draws on a more general category of moral concepts than specific types of moral frameworks, such as utilitarianism or formalism, and has been shown to be distinct from these constructs, as well as constructs that depend on exogenous events and situation characteristics, such as moral awareness or sensitivity, and individual characteristics, including age, gender, and social desirability bias (Reynolds 2008).

Along with developing the moral attentiveness construct, Reynolds (2008) also developed and validated a reliable two-dimensional scale for the measurement of moral attentiveness and showed that the scale is able to predict the specific behaviors of recall and reporting of morality-related behaviors and moral awareness, as well as the more global behavior of general moral conduct (Reynolds 2008). The moral attentiveness scale is designed to measure the extent to which individuals actively consider general moral concepts that permit differentiation between the moral versus the amoral, as opposed to measuring whether individuals possess and apply more specific moral frameworks, such as utilitarianism or formalism, which permit differentiation between the moral versus the immoral (Reynolds 2008).

While Reynolds (2008) found that both dimensions of the moral attentiveness construct were significantly ($p < .05$) positively correlated with Aquino and Reed's (2002) symbolization dimension of moral identity (both dimensions of moral attentiveness were positively, but not significantly correlated with the internalization dimension of moral identity), he argues that the constructs are distinct. In particular, Reynolds (2008) contends that attentiveness to a concept does not require forming an identity around that concept and that having an identity organized around a concept does not require being attentive to that concept. In support of this latter contention, Reynolds (2008) cites Messick and Bazerman's (1996) suggestion that having a strong belief in one's own morality can lead to “moral hubris,” which could result in a negative correlation between moral identity and moral attentiveness.

Consistent with Erikson (1964), Blasi (1984, p. 130) defines the concept of identity as “rooted in the very core of one's being” and “involving being true to oneself in action.” In his earlier works, Blasi (1980, 1983) addresses how moral identity is linked to moral action through the concepts of responsibility (the strict obligation to act according to one's judgment) and integrity (the internal demand for moral self-consistency); the view that moral action is “an extension of the essential self into the domain of the possible,” motivated by the drive to be true to oneself (Blasi 1984, p. 132).

These perspectives on moral attitudes and behaviors, based on theories that underlie the concept of moral

identity, are distinct from the perspectives on moral attitudes and behaviors based on social cognitive theory, which underlies the concept of moral attentiveness. In particular, the moral attentiveness concept was developed considering the social cognitive theory notion that perceptions and behaviors are functions of stimuli, individuals, and their interaction (Bandura 1986; Fiske and Taylor 1991). According to social cognitive theory, observers perceive and encode stimuli, giving different levels of attention to different aspects of incoming information based on information vividness, salience, and accessibility (Fiske and Taylor 1991). Reynolds (2008) developed his moral attentiveness construct in consideration of the accessibility element in the social cognitive model.

Accessibility refers to the readiness of retrieval from memory and/or usage of cognitive frameworks that permit recognition and encoding of stimuli (Higgins 1981; Wyer and Srull 1986). Reynolds (2008) argued that concepts associated with morality represent distinct cognitive frameworks that can be applied in the recognition and encoding of stimuli. Individuals who chronically access a moral cognitive framework analyze and reflect on incoming information through a lens focused on the concepts of morality. Thus, individuals who are more morally attentive screen and consider stimuli related to morality differently versus individuals who are less morally attentive. Accordingly, moral attentiveness involves two dimensions: a perceptual dimension in which information is automatically screened using a moral perspective as it is encountered and a reflective dimension in which the individual uses morality to consider and reflect on information (Reynolds 2008).

The concept of moral attentiveness provides an important tool for understanding individual differences in moral behavior that derives from a perspective that both extends and is distinct from the CMD approach to ethics (Kohlberg 1981; Rest 1986). In particular, analyses based on the CMD perspective and concepts such as moral awareness (determination that a situation contains moral content, Reynolds 2006a) and moral sensitivity (the ability to identify moral issues when they exist, Sparks and Hunt 1998) rely on objectively moral exogenous situation characteristics to analyze individual moral differences. In contrast, the concept of moral attentiveness draws on social cognitive theory to reframe the analysis of moral behavior and acknowledge that there are individual differences in the amount of attention chronically given to moral matters and that these individual differences interact with exogenous situation characteristics to result in moral behavior. Since the moral attentiveness construct is independent of specific situation characteristics, it provides for increased predictive and external validity and allows investigation of less immediate consequences of chronic attention to moral

matters, such as general moral conduct and the nature of broad opinions on issues related to ethics and morality (Reynolds 2008). The present research seeks to take advantage of this opportunity by examining the relationship between moral attentiveness and broad opinions on the importance of ethics and social responsibility in business.

Ethics Education

Recent media attention on significant business losses related to ethical issues has reinvigorated discussions of the value of teaching ethics in business schools and other institutions. Despite some claims that ethics cannot be effectively taught at the college level (e.g., Cragg 1997), prominent institutions (e.g., the Association to Advance Collegiate Schools of Business—AACSB and the Academy of Management—AOM) continue to endorse formal education in business schools aimed at providing tools for ethical decision-making.

The issue of how to best teach ethics in business schools remains a topic of much interest and discussion (Bishop 1992; Collins and Wartick 1995; McPhail 2001; Park 1998). One of the most significant issues is whether it is best to teach ethics using a stand-alone course or integrate ethics training into other courses. There is evidence supporting the efficacy of ethics educational programs based on stand-alone courses only (Glenn 1992; Okleshen and Hoyt 1996), curricula where ethics topics are integrated into other courses (Lopez et al. 2005), and curricula that combine a stand-alone course with ethics topics integrated into other courses (Luthar and Karri 2005). Another issue of significant interest in research in business ethics education concerns best practices in teaching techniques. Some of the techniques examined include, the use group work (Geary and Sims 1994; McPhail 2001), role-playing (Loeb 1988; Park 1998), discussions of topics that are directly relevant in business (Loeb 1988; Maclagan 2003; McPhail 2001; Trevino 1992), and also relevant to the students (Geary and Sims 1994), the use of guest lecturers (Loeb 1988; Park 1998), and de-briefings when programs end (Geary and Sims 1994).

Considerable research has investigated whether and in what ways education in business ethics affects students. Positive relationships have been found between ethics education and ethical awareness (Boyd 1982; Lau 2010; Stead and Miller 1988), ethical judgment (Glenn 1992), ethical perceptions (Lopez et al. 2005; Luthar and Karri 2005), ethical values (Okleshen and Hoyt 1996), ethical sensitivity (Gautschi and Jones 1998), and moral reasoning abilities (Carlson and Burke 1998; Jones 2009; Lau 2010; Weber and Glyptis 2000; Weber and Green 1991). A recent study and review of 10 years of research on the impacts of

education in business ethics on students' moral awareness and decision-making abilities concluded that "ethics education does matter" (Lau 2010).

The present study seeks to draw on and extend prior research on business ethics education by examining the nature of the relationship between ethics education and PRESOR. As I discuss in the next section, it is proposed that ethics education is associated with PRESOR due to a variety of relationships considered in prior research, including relationships between ethics education and ethical perceptions, awareness, and reasoning, as well as through its effects on moral attentiveness as a mediator. In investigating the relationships between ethics education, moral attentiveness, and PRESOR, the present study extends research on ethics education by considering the effects of such training on accessibility of moral cognitive frameworks, according to perspectives based on social cognitive theory.

Proposed Relationships Between Ethics Education, Moral Attentiveness, and PRESOR

In the present research, I propose that education in business ethics is associated with PRESOR due to a variety of relationships considered in extant literature, including relationships between ethics education and ethical perceptions, awareness, and reasoning, as well as through its effects on moral attentiveness as a mediator.

Various theoretical perspectives and previous empirical findings support the proposition that there is a direct relationship between education in business ethics and PRESOR in business. Previous studies have provided evidence of direct positive relationships between education in business ethics and various measures of ethical perceptions, when the ethics education was in the form of either a combination of a stand-alone course and other courses that integrated ethics topics into the curriculum (Luthar and Karri 2005) or in the form of an integrated curriculum with no stand-alone course (Lopez et al. 2005). Gordon (1998) provided evidence of a positive relationship between relevant readings and discussions and perceptions of the importance of CSR. These findings suggest that completion of educational programs that include sufficient material related to ethics and CSR is likely to be positively associated with holding the PRESOR stakeholder view.

Evidence of a positive association between ethics education and moral awareness (Boyd 1982; Lau 2010; Stead and Miller 1988) also suggests a positive association between ethics education and holding the PRESOR stakeholder view. If education in business ethics is associated with increased levels of moral awareness and "He who knows the good chooses the good" (Kohlberg 1981, p. 30),

then this would suggest a positive association between education in business ethics and perceptions that ethics and social responsibility are important.

If ethics education is positively associated with moral reasoning (Carlson and Burke 1998; Jones 2009; Lau 2010; Weber and Glyptis 2000; Weber and Green 1991), then this would suggest that ethics training can cause relevant moral cognitive frameworks to become stored in memory, or “available” (Higgins and King 1981) for use in recognizing and encoding stimuli. From a social cognitive perspective, “applicable” questions concerning the importance of ethics and social responsibility would activate these moral cognitive frameworks (made available by ethics education) (Higgins 1996), resulting in a positive association between ethics training and the PRESOR stakeholder view.

In view of the above considerations and since the stockholder view is largely contrary to the stakeholder view, the following hypotheses about direct associations between education in business ethics and PRESOR are proposed:

Hypothesis 1A There is a positive association between education in business ethics and the PRESOR stakeholder view.

Hypothesis 1B There is a negative association between education in business ethics and the PRESOR stockholder view.

Social cognitive theory is the basis for the two stages of this study’s proposed indirect relationship between education in business ethics and PRESOR, through the mediator of moral attentiveness.

Concerning the first stage of the proposed indirect link between education in business ethics and PRESOR, it is proposed that education in business ethics directly affects moral attentiveness by increasing the accessibility of moral cognitive frameworks. Accessibility of a cognitive framework refers to the readiness with which that framework can be retrieved from memory and/or utilized in stimulus recognition (Higgins and King 1981). According to social cognitive theory, there are two types of accessibility: normal accessibility, which refers to situations in which particular frameworks become temporarily accessible and chronic accessibility, which refers to situations in which particular frameworks come to dominate cognition permanently. Numerous studies support the notion that perceptions related a wide range of social concepts, including traits, stereotypes, levels of anxiety, moods, criminal guilt, quality of life, and national policies, can be influenced by changes in levels of accessibility of relevant cognitive frameworks through “priming,” the phenomenon wherein recent and frequent activation of cognitive frameworks causes those frameworks to come to mind and be used

more readily than frameworks that have not been activated (Fiske and Taylor 1991).

The present research proposes that one of the more significant outcomes of education in business ethics may be that it serves to prime moral cognitive frameworks, increasing their levels of accessibility and usage, according to the nature of the particular educational program. The “synapse” perspective on how accessibility differs depending on the nature of the priming from which it derives suggests that, while more recently primed frameworks are more accessible in the short-run, more frequently primed frameworks decay more slowly and are more accessible over the long-run (Higgins et al. 1985; Bargh et al. 1988). Thus, it is proposed that ethics education that involves frequent exposure to moral frameworks, over an extended period of time would be most likely to result in lasting accessibility and usage of those frameworks, a state most consistent with the concept of moral attentiveness. It is noteworthy, however, that because different sources of accessibility of frameworks are additive (Bargh et al. 1986; Higgins 1989), ethics education programs are likely to affect ethical judgments through their effects on accessibility of moral cognitive frameworks both when those effects are long-lasting (most consistent with the concept of moral attentiveness) and when they are more transient, but temporally proximal to relevant stimulus. As an initial investigation, the present research takes the first important step of examining whether there appears to be an association between having had education in business ethics and exhibiting moral attentiveness. However, as I discuss in a later section, future studies should investigate whether and how varying frequency and recency of exposure to moral cognitive frameworks in different types of ethics education programs is associated with different outcomes related to the chronic use of moral frameworks and moral attentiveness over time.

In sum, the above reasoning suggests the following proposed relationships between education in business ethics and moral attentiveness for examination in the present research:

Hypothesis 2A There is a positive association between education in business ethics and reflective moral attentiveness.

Hypothesis 2B There is a positive association between education in business ethics and perceptual moral attentiveness.

Concerning the second stage of the proposed indirect link between education in business ethics and PRESOR, it is proposed that moral attentiveness is positively associated with the PRESOR stakeholder view and negatively associated with the PRESOR stockholder view. Moral attentiveness is defined as the extent to which individuals

chronically perceive and reflect on morality and moral elements in their experiences (Reynolds 2008). Thus, from the social cognitive perspective, the morally attentive individual chronically accesses cognitive frameworks that allow him or her to perceive and reflect on the morality of their experiences. Chronically accessed frameworks allow faster, more efficient encoding of relevant information (Bargh and Thein 1985) and can become central aspects of an individual's personality (Fiske and Taylor 1991). Further, chronically accessed frameworks are often used unintentionally (Bargh et al. 1986; Higgins et al. 1982) and outside of the individual's control (Bargh and Pratto 1986), resulting in automatic encoding of stimuli (Bargh 1984, 1989).

While the operationalization of the moral attentiveness construct measures conscious cognitive activities related to perceiving and reflecting on moral issues and these conscious activities are predicted to play a significant role in shaping individuals' assessments of issues and opinions, Reynolds (2008), himself, argues that moral attentiveness is likely to also have significant unconscious, automatic effects on moral behaviors and opinions. For example, in discussing how reflective moral attentiveness can shape general moral conduct, Reynolds (2008, p. 1029) states, "reflective moral attentiveness shapes the individual's assessments of behavioral options and guides the individual in an automatic fashion toward moral behavior—a process consistent with intuitive or reflexive models of moral decision making (Haidt 2001; Reynolds 2006b)."

Consistent with these views, the present research proposes that moral attentiveness will guide the individual toward the opinion that ethics and social responsibility are important in businesses, through both conscious and unconscious processes.

While reflective moral attentiveness, which relates to looking inward and considering the morality of issues, would seem to be the dimension most strongly related to the formation of opinions on issues related to ethics and morality (such as PRESOR), it is also proposed that perceptual moral attentiveness will be positively associated with opinions that ethics and social responsibility are important. Perceptual moral attentiveness involves chronic consideration of the morality of daily decisions and, therefore, chronic activation of moral frameworks consistent with the PRESOR stakeholder perspective.

Since the items related to the stockholder view in the PRESOR scale indicate that both ethics and social responsibility should be subordinated to efficiency, competitiveness, and profitability, it is hypothesized that there will be negative associations between both reflective and perceptual moral attentiveness and the PRESOR stockholder view.

Thus, considering the above reasoning, the following relationships between moral attentiveness and PRESOR are proposed:

Hypothesis 3A There is a positive association between reflective moral attentiveness and the PRESOR stakeholder view.

Hypothesis 3B There is a positive association between perceptual moral attentiveness and the PRESOR stakeholder view.

Hypothesis 4A There is a negative association between reflective moral attentiveness and the PRESOR stockholder view.

Hypothesis 4B There is a negative association between perceptual moral attentiveness and the PRESOR stockholder view.

Combining the arguments leading up to Hypotheses 2A and 2B (there are positive relationships between ethics education and moral attentiveness), with the arguments leading up to Hypotheses 3A–4B (moral attentiveness is positively related to the PRESOR stakeholder view and negatively related to the PRESOR stockholder view), supports the notions that there are indirect positive relationships between ethics education and the PRESOR stakeholder view and indirect negative relationships between ethics education and the PRESOR stockholder view, with moral attentiveness acting as the mediator in all indirect relationships.

Hypothesis 5A There is an indirect positive association between education in business ethics and the PRESOR stakeholder view through the mediator of reflective moral attentiveness.

Hypothesis 5B There is an indirect positive association between education in business ethics and the PRESOR stakeholder view through the mediator of perceptual moral attentiveness.

Hypothesis 6A There is an indirect negative association between education in business ethics and the PRESOR stockholder view through the mediator of reflective moral attentiveness.

Hypothesis 6B There is an indirect negative association between education in business ethics and the PRESOR stockholder view through the mediator of perceptual moral attentiveness.

Figures 1 and 2 summarize the hypotheses about the relationships between ethics education, moral attentiveness, and the PRESOR stakeholder and stockholder views, respectively. The hypotheses were tested in the study discussed in the following section.

Method

Participants

Participants were 224 upper division undergraduate students in a large, required core course in organizational behavior at a large AACSB accredited college of business in the southeastern USA. A large, required core course was selected to ensure the sample included students from a broad range of business majors. The sample composition by major was consistent with the overall composition of the college of business, with approximately 38 % accounting majors, 10 % economics/finance majors, 30 % management/marketing majors, and 22 % other majors, including hospitality and health administration, international business, management information systems, and others. Ninety percent of the students in the sample were the US citizens and the racial composition was 62 % white, 21 % Hispanic, 10 % black, and 7 % Asian. The participants were 57 % male, had an average of 3 years of full-time work experience, and ranged in age from 18 to 55 years old, with an average age of 24.3 (SD = 5.76). Participants completed a printed questionnaire that was administered during class after being assured there were no right or wrong answers and their participation was completely anonymous, to reduce common method bias.

Materials and Measures

PRESOR

The dependent variable was measured using the 13-item PRESOR instrument developed by Singhapakdi et al. (1996). The PRESOR instrument consists of 13 statements that participants rate on a scale of 1 (totally disagree) to 9 (totally agree). As previously discussed, this scale was

developed to measure PRESOR in organizational effectiveness. In developing this scale, Singhapakdi et al. (1996) identified three factors, which they labeled “social responsibility and profitability,” “long-term gains,” and “short-term gains” and in another study at about the same time, Singhapakdi et al. (1995) identified three factors, which they labeled “good ethics is good for business,” “profits are not paramount,” and “quality and communication.” In a later study, designed specifically to examine the factor loadings of the PRESOR instrument for a sample of Hong Kong MBA students and managers, Etheredge (1999) identified two factors, which he labeled “importance of ethics and social responsibility” and “subordination of ethics and social responsibility in the achievement of organizational effectiveness.” Other studies using PRESOR as a focal variable have identified factor structures similar to those found by Singhapakdi et al. (1995, 1996) and Etheredge (1999) (Axinn et al. 2004; Vitell et al. 2010; Shafer et al. 2007). In all the cases, the factors can be divided into those endorsing the stockholder view versus those endorsing the stakeholder view.

Because previous studies have identified different factor structures using the PRESOR instrument, the first step in the present research was to examine the factor structure of the PRESOR instrument for the present sample of 224 subjects. A principle component analysis with Varimax rotation revealed two factors with eigenvalues greater than one. These two factors accounted for 52.1 % of the variance and were essentially the same as the factors identified by Etheredge (1999) except loadings were a bit higher and all 13 items were included in the two factors (versus the nine included by Etheredge 1999). The factors were labeled “stakeholder view” and “stockholder view” and are shown in Table 1, along with the loadings for the factor items. The reliabilities for the stakeholder and stockholder view factors were $\alpha = 0.85$ and $\alpha = 0.79$, respectively.

Fig. 1 A model of the relationships between ethics education, moral attentiveness, and the PRESOR stakeholder view measure

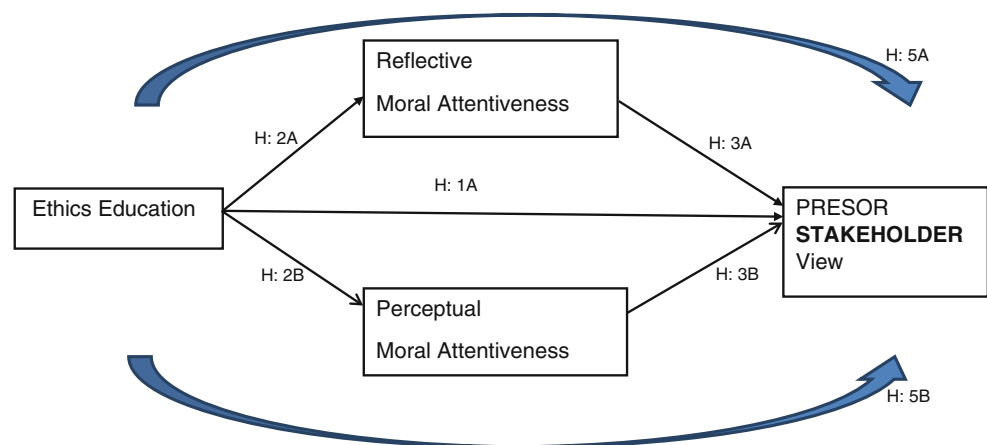
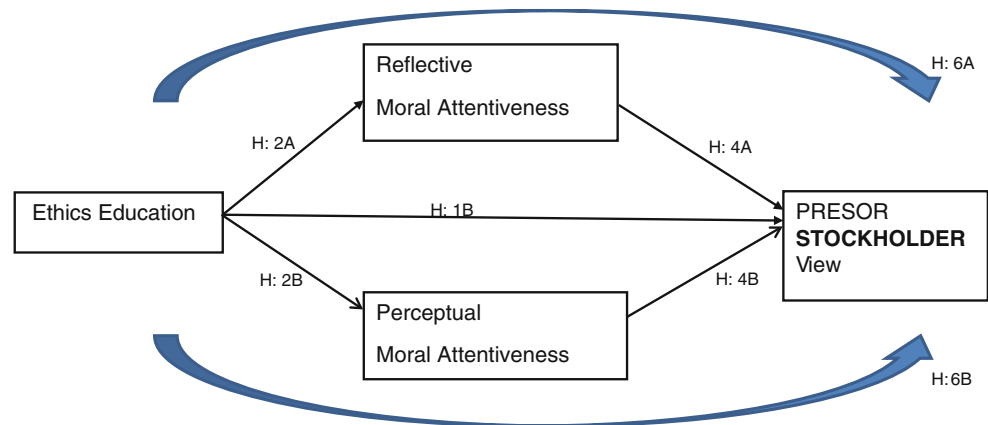


Fig. 2 A model of the relationships between ethics education, moral attentiveness, and the PRESOR stockholder view measure



Moral Attentiveness

Moral attentiveness was measured using the 12-item instrument developed by Reynolds (2008). The moral attentiveness instrument consists of 12 statements that participants rate on a scale of 1 (strongly disagree) to 7 (strongly agree). As previously discussed, this scale was developed to measure differences in the extent to which an individual chronically perceives and considers morality and moral elements in his or her experiences. The moral attentiveness instrument was designed to include measures of two dimensions, which were confirmed in factor analysis of the instrument and shown to exhibit acceptable internal consistency (Reynolds 2008). The first dimension includes five items, which measure the extent to which the individual considers, ponders, and ruminates on moral matters, and is referred to as “reflective moral attentiveness.” The second dimension includes seven items, which measure the extent to which the individual recognizes moral aspects in everyday experiences, and is referred to as “perceptual moral attentiveness.”

The present research examined the factor structure of the moral attentiveness instrument for the present sample of 224 subjects. A principle component analysis with Varimax rotation revealed two factors with eigenvalues greater than one. These two factors accounted for 59 % of the variance and were consistent with the reflective and perceptual moral attentiveness factors identified by Reynolds (2008). The items and factor loadings for the reflective and perceptual moral attentiveness dimensions are shown in Table 2. The reliabilities for the reflective and perceptual moral attentiveness factors were $\alpha = 0.82$ and $\alpha = 0.76$, respectively.

Ethics Education

Prior research has shown significant associations between a variety of relevant outcomes and business ethics

educational programs based on stand-alone courses only (Glenn 1992; Okleshen and Hoyt 1996), curricula where ethics topics are integrated into other courses (Lopez et al. 2005), and curricula that combine a stand-alone course with ethics topics integrated into other courses (Luthar and Karri 2005). Accordingly, this study measured ethics education with a dichotomous variable, with a value of 1 if the respondent indicated that he or she had either taken a stand-alone course in ethics or taken a course in which ethics issues were integrated with the other course material as an important topic, and 0 otherwise.

Control Variables

Given considerable evidence that female and older students exhibit stronger ethical attitudes and behaviors (Akaah 1989; Arlow 1991; Beltramini et al. 1984; Betz et al. 1989; Borkowski and Ugras 1998; Conroy and Emerson 2004; Franke et al. 1997; Jones and Gautschi 1988; Kohlberg 1984; Lane 1995; Lau 2010; Longenecker et al. 1989; Lopez et al., 2005; Luthar et al. 1997; Luthar and Karri 2005, 2005; Okleshen and Hoyt 1996; Peterson and Beltramini 1991; Ruegger and King 1992; Smith and Oakley 1997; Weber and Glyptis 2000) and that differences in PRESOR scores may also exist across gender and age (Elias 2004), the present research included controls for these variables. Gender was measured with a dichotomous variable, with a value of 1 if the respondent was male and 0 if female. Age was measured with a continuous variable indicating the respondent’s age in years.

Social desirability bias refers to efforts made by respondents to answer questions in ways so as to present themselves in a favorable light, regardless of their true feelings, beliefs, or behaviors (Randall and Fernandes 1991). The validity of studies involving self-report measures can be compromised if respondents underreport what they perceive to be socially undesirable behaviors and over-report socially desirable ones (Nunnally 1978). The

Table 2 Moral attentiveness items and factor analysis results

Items	Factor loadings
Reflective moral attentiveness, Factor 1 ($\alpha = 0.82$)	
1. I regularly think about the ethical implications of my decisions	0.74
2. I think about the morality of my actions almost every day	0.71
3. I often find myself pondering about ethical issues	0.70
4. I often reflect on the moral aspects of my decisions	0.82
5. I like to think about ethics	0.75
Perceptual moral attentiveness, Factor 2 ($\alpha = 0.76$)	
1. In a typical day, I face several ethical dilemmas	0.77
2. I often have to choose between doing what's right and doing something that's wrong	0.82
3. I regularly face decisions that have significant ethical implications	0.85
4. My life has been filled with one moral predicament after another	0.75
5. Many of the decisions that I make have ethical dimensions to them	0.64
6. I rarely face ethical dilemmas. (reverse scored)	0.50
7. I frequently encounter ethical situations	0.68

tendency to give socially desirable responses varies across individuals and as a function of study characteristics. Studies involving issues related to ethics can be particularly prone to social desirability bias (Randall and Fernandes 1991).

The present research employed two techniques to control social desirability bias. First, participants were asked to answer all questions on the survey as honestly as possible and assured that there were no right or wrong answers to any of the questions and that the survey was being conducted in a manner that would ensure their complete anonymity. Podsakoff et al. (2003) describe how these techniques serve to reduce participants' evaluation apprehension and tendencies to provide responses that they perceive to be more socially desirable, acquiescent, or consistent with researcher desires.

Second, each respondent's tendency to give socially desirable responses was directly measured and entered as a control variable in the analyses. Because many social desirability response set (SDRS) measures tend to be lengthy and impose a considerable burden on respondents, the present study employed the five-item (SDRS-5) instrument developed by Hays et al. (1989). The SDRS-5 instrument captures the extent to which respondents claim favorable attributes by asking them to rate five items on a scale ranging from 1 (definitely false) to 5 (definitely true). An example item is "I am always courteous, even to people who are disagreeable." To examine the extent of extreme responding, items were scored as 1 for the extreme score (5) and 0 for all other scores (1, 2, 3, and 4). High scores indicate concern for others' perceptions and the likelihood of self-presentation (Johnson 1981), while low scores indicate indifference to other's perceptions and authenticity in responses (Nunnally 1978; Ellingson et al. 2001). Total

social desirability bias was measured as the sum of scores on the five items in the SDRS-5 instrument for each respondent.

Controlling social desirability bias can be an important part of a broader strategy to control common method variance, which can be problematic in studies based on self-report questionnaires (Podsakoff et al. 2003). The present research also employed a number of other techniques to control and look for evidence of common method variance in the study. The PRESOR measure was separated from the moral attentiveness measure, both proximally and psychologically, by the nature of the measures and the design of the questionnaire. In particular, the PRESOR measure uses a 9-item Likert scale, while the moral attentiveness measure uses a 7-item Likert scale. Further, the questionnaire was designed so the PRESOR and the moral attentiveness measures were separated from each other by several pages of questions concerning very different issues (e.g., concerning demographic characteristics and broader career ambitions) and having very different question formats (e.g., open-ended). The introduction of proximal and psychological separation between the measures of predictor and criterion variables reduces biases in multiple stages of the response process by reducing the saliency, availability, or relevance of prior responses, thereby reducing potential common method variance (Podsakoff et al. 2003).

Harman's (1967) single-factor test was used as an ex post diagnostic technique to determine whether common method variance appeared to be a significant concern in the study. All the items from the PRESOR and moral attentiveness measures were loaded into an exploratory factor analysis using principal axis factoring. The unrotated factor solution indicated the existence of five factors with eigenvalues greater than one ($KMO = 0.814$). These five

factors accounted for 60.23 % of the variance among all the items, while the first factor accounted for 23.1 % of the variance. Since a single factor did not emerge from this analysis and since the largest factor did not account for the vast majority of the covariance, a substantial amount of common method variance does not appear to be present in the study.

Results

Table 3 shows the descriptive statistics and correlations among the variables. Note that all the variables showed considerable range in their values. Table 3 shows that 67 % of respondents reported receiving ethics education and respondents generally did not exhibit tendencies to provide responses indicative of extreme social desirability bias (SDRS-5 $M = 1.03$). Note that the mean values for both perceptual ($M = 4.4$) and reflective ($M = 4.7$) moral attentiveness were slightly above the arithmetic mean for the 1–7 rating scale for both the variables and generally consistent with mean values obtained for these variables in previous studies (Reynolds 2008). The relatively high mean score ($M = 7.1$) for the PRESOR stakeholder view items and relatively low mean score ($M = 3.4$) for the PRESOR stockholder view items, given the PRESOR instrument rating scale of 1–9, indicate a considerable preference for the stakeholder view among respondents. These PRESOR scores and the preference for the stakeholder view are consistent with mean scores found in other studies of the US business students (e.g., Elias 2004). Note that neither the correlations nor variance inflation factors, none of which was significantly greater than one, indicated significant multicollinearity among the variables.

Table 4 shows the results for multiple regressions with the PRESOR stakeholder and stockholder view measures as dependent variables. As shown in Table 4, holding the PRESOR stockholder view was found to be significantly ($p < .05$) positively associated with being male. This

findings is consistent with previous findings about negative relationships between being male and attitudes toward ethics and PRESOR (e.g., Borkowski and Ugras 1998; Elias 2004). While the negative signs associated with both the ethics education and the reflective moral attentiveness coefficients were consistent with the direction of the relationships predicted in Hypotheses 1B and 4A (i.e., that there will be negative relationships between both ethics education and reflective moral attentiveness and the PRESOR stockholder view, respectively), the relationships were not significant and therefore did not support Hypothesis 1B or 4A. Also, since perceptual moral attentiveness was not significantly related to the PRESOR stockholder view, there is no support Hypothesis 4B, which states that there will be a negative relationship between an individual's score on perceptual moral attentiveness and agreement with stockholder view items in the PRESOR scale.

Consistent with previous findings (Borkowski and Ugras 1998; Elias 2004), being male was found to be significantly ($p < .05$) negatively related to the PRESOR measure of holding the stakeholder view and, consistent with expectations, being concerned about social desirability was found to be significantly ($p < .05$) positively related to the PRESOR measure of the stakeholder view. Age was not found to be significantly related to the PRESOR measure of the stakeholder view. Both ethics education and reflective moral attentiveness were found to be significantly ($p < .05$) positively related to the PRESOR stakeholder view, in support of Hypotheses 1A and 3A, respectively, but the relationship between perceptual moral attentiveness and the PRESOR stakeholder view measure was not found to be significant, providing no support for Hypotheses 3B.

Figures 1 and 2 suggest that ethics education will be positively related to both reflective and perceptual moral attentiveness (Hypotheses 2A, 2B, respectively). Additionally, Fig. 1 suggests that ethics education will be positively related to the PRESOR stakeholder view, acting indirectly through reflective and perceptual moral

Table 3 Descriptive statistics and Pearson correlation coefficients ($N = 224$)

	Mean	SD	1	2	3	4	5	6	7
1. Age	24.27	5.76							
2. Male	0.57	0.50	0.14						
3. Social desirability	1.03	1.29	0.23	−0.12					
4. Ethics education	0.67	0.47	0.06	0.02	0.05				
5. Reflective moral attentiveness	4.74	1.30	0.02	0.02	0.09	0.33			
6. Perceptual moral attentiveness	4.44	1.33	−0.06	0.07	0.08	0.26	0.43		
7. PRESOR stockholder view	3.43	1.64	−0.17	0.19	−0.16	−0.09	−0.09	−0.04	
8. PRESOR stakeholder view	7.09	1.29	0.05	−0.17	0.23	0.22	0.24	0.14	−0.45

Table 4 Multiple regression analysis of the PRESOR dimensions

Variables	β	<i>T</i> value	Significance of <i>T</i>
Stakeholder view			
Age	-0.024	-0.344	0.731
Male	-0.163	-2.369	0.019
Social desirability	0.177	2.511	0.013
Reflective moral attentiveness	0.156	2.023	0.045
Perceptual moral attentiveness	0.023	0.305	0.761
Ethics education	0.164	2.277	0.024
Adjusted $R^2 = 0.111$, $F = 5.053$, significance of $F = 0.000$			
Stockholder view			
Age	-0.122	-1.668	0.097
Male	0.152	2.139	0.034
Social desirability	-0.107	-1.467	0.144
Reflective moral attentiveness	-0.052	-0.655	0.513
Perceptual moral attentiveness	0.002	0.026	0.979
Ethics education	-0.076	-1.018	0.310
Adjusted $R^2 = 0.048$, $F = 2.628$, significance of $F = 0.018$			

attentiveness as mediators (Hypotheses 5A, 5B, respectively). However, the lack of support in Table 4 for significant relationships between ethics education and the PRESOR stockholder view (Hypothesis 1B), reflective moral attentiveness and the PRESOR stockholder view (Hypothesis 4A), and perceptual moral attentiveness and the PRESOR stockholder view (Hypothesis 4B), indicates a lack of support for Hypotheses 6A and 6B (that ethics education is linked to the PRESOR stockholder view indirectly through reflective and perceptual moral attentiveness). Accordingly, no further investigation of Hypotheses 6A and 6B (shown in Fig. 2) was conducted.

The following analysis examines whether there is support for Hypotheses 2A and 2B, providing insight into whether ethics education appears to be a determinant of moral attentiveness and whether there is support for Hypotheses 5A and 5B, providing insight into whether moral attentiveness appears to play a mediating role in the relationship between ethics education and the PRESOR stakeholder view.

Table 5 shows separate regressions with reflective and perceptual moral attentiveness as the dependent variables, against ethics education as the independent variable, controlling for age, gender, and social desirability bias. The regressions in Table 5 indicate a highly significant positive relationship between ethics education and reflective moral attentiveness ($p < .001$), supporting Hypothesis 2A, as well as a highly significant positive relationship between ethics education and perceptual moral attentiveness ($p < .001$), supporting Hypothesis 2B. Consistent with findings by Reynolds (2008), age, gender, and social desirability bias were not significantly related to either reflective or perceptual moral attentiveness.

A single multiple mediation model (Bollen 1987, 1989; MacKinnon 2000, 2008; Preacher and Hayes 2008) was employed to allow simultaneous examination of the total and direct effects of ethics education on the PRESOR stakeholder view, as well as the specific indirect effects (Brown 1997; Fox 1985) of ethics education on the PRESOR stakeholder view through each of the two dimensions of moral attentiveness. Both multivariate extensions of the product-of-coefficients approach (e.g., Sobel 1982, 1986) and non-parametric bootstrapping techniques extended to the multiple mediation model to account for potential non-normality of the sampling distributions of the total and specific indirect effects (Shrout and Bolger 2002) were employed. Percentile, bias-corrected (BC), and bias-corrected and accelerated (BCa) 95 % confidence intervals (CIs) (Efron 1987; Williams and MacKinnon 2008) were generated using five thousand bootstrap resamples according to techniques described by Preacher and Hayes (2008). All paths from the independent variable to the potential mediators and mediators to the dependent variable were estimated using ordinary least squares (OLS) regression techniques.

Consistent with predictions in the present research, ethics education was found to have a significant total effect on the PRESOR stakeholder view (0.59 , $p < .01$). The direct effect of ethics education on the PRESOR stakeholder view was also found to be significant (0.43 , $p < .05$), providing support for Hypothesis 1A. As shown in Table 6, the total indirect effect of ethics education on the PRESOR stakeholder view through moral attentiveness had a point estimate of 0.16 and was significant according to both normal theory analysis ($p < .05$) and all the three 95 % bootstrapped CIs. Thus, the evidence supports the prediction that the effect of

Table 5 Multiple regression analysis of relationships between ethics education and reflective and perceptual moral attentiveness

Variables	β	<i>T</i> value	Significance of <i>T</i>
Reflective moral attentiveness			
Age	-0.017	-0.246	0.806
Male	0.021	0.301	0.763
Social desirability	0.097	1.390	0.166
Ethics education	0.326	4.813	0.000
Adjusted $R^2 = 0.099$, $F = 6.440$, significance of $F = 0.000$			
Perceptual moral attentiveness			
Age	-0.096	-1.346	0.180
Male	0.078	1.119	0.265
Social desirability	0.083	1.166	0.245
Ethics education	0.256	3.708	0.000
Adjusted $R^2 = 0.066$, $F = 4.455$, significance of $F = 0.002$			

ethics education on the PRESOR stakeholder view is mediated by moral attentiveness.

A joint inspection of the four relationships between: 1. ethics education and reflective moral attentiveness (H: 2A in Fig. 1), 2. ethics education and perceptual moral attentiveness (H: 2B in Fig. 1), 3. reflective moral attentiveness and the PRESOR stakeholder view (H: 3A in Fig. 1), and 4. perceptual moral attentiveness and the PRESOR stakeholder view (H: 3B in Fig. 1) indicated that the directions of the relationships along each of these four paths were consistent with predictions that ethics education is positively associated with both reflective and perceptual moral attentiveness and that both reflective and perceptual moral attentiveness are positively associated with the PRESOR stakeholder view. However, as shown in Table 6, only the specific indirect effect of ethics education on the PRESOR stakeholder view through reflective moral attentiveness was significant according to both normal theory analysis ($p < .05$) and the three 95 % bootstrapped CIs, supporting Hypothesis 5A (H: 5A in Fig. 1). In contrast, the specific indirect effect of ethics education on the PRESOR stakeholder view through perceptual moral attentiveness was not found to be significant according to either normal theory analysis or any of the three 95 % bootstrapped CIs, indicating no support for Hypothesis 5B (H: 5B in Fig. 1).

To summarize the findings, Table 7 lists the hypotheses and indicates whether each was supported or not by the findings of the present study.

General Discussion and Future Research

The perceptions of key decision makers about the importance of ethics and social responsibility to firm effectiveness (i.e., whether they hold a stockholder vs. stakeholder view of the firm) may be among the most important determinants of whether businesses conduct themselves in an ethical and socially responsible manner (Singhapakdi et al. 1996). Corporate ethical failures can have profoundly negative impacts on numerous stakeholders and even entire societies (Giacalone and Jurkiewicz 2003). Since today's business students are likely to be among tomorrow's business leaders it is important to understand the factors associated with their developing PRESOR in business. While some argue that ethics education at the college level cannot be effective (Cragg 1997) or that the very nature of business education causes students' ethical values to become worse (Wolfe and Fritzsche 1998), business schools and accrediting institutions continue to support the inclusion of ethics training in business educational

Table 6 Mediation of the indirect effects of ethics education on the PRESOR stakeholder view, through reflective and perceptual moral attentiveness

	Product-of-coefficients			Bootstrapping					
	Point estimate	SE	<i>Z</i>	Percentile 95 % CI		BC 95 % CI		BCa 95 % CI	
				Lower	Upper	Lower	Upper	Lower	Upper
Ethics ed. total indirect	0.1563	0.0736	2.1256	0.0207	0.3283	0.0231	0.3324	0.0221	0.3300
Reflective	0.1475	0.0732	2.0149	0.0085	0.3201	0.0131	0.3273	0.0090	0.3220
Perceptual	0.0089	0.0493	0.1795	-0.0780	0.1145	-0.0761	0.1165	-0.0756	0.1172

Table 7 Summary of results concerning the hypotheses

Hypothesis	Supported
1A: There is a positive association between education in business ethics and the PRESOR stakeholder view	Yes
1B: There is a negative association between education in business ethics and the PRESOR stockholder view	No
2A: There is a positive association between education in business ethics and the reflective moral attentiveness	Yes
2B: There is a positive association between education in business ethics and the perceptual moral attentiveness	Yes
3A: There is a positive association between reflective moral attentiveness and the PRESOR stakeholder view	Yes
3B: There is a positive association between perceptual moral attentiveness and the PRESOR stakeholder view	No
4A: There is a negative association between reflective moral attentiveness and the PRESOR stockholder view	No
4B: There is a negative association between perceptual moral attentiveness and the PRESOR stockholder view	No
5A: There is an indirect positive association between education in business ethics and the PRESOR stakeholder view through the mediator of reflective moral attentiveness	Yes
5B: There is an indirect positive association between education in business ethics and the PRESOR stakeholder view through the mediator of perceptual moral attentiveness	No
6A: There is an indirect negative association between education in business ethics and the PRESOR stockholder view through the mediator of reflective moral attentiveness	No
6B: There is an indirect negative association between education in business ethics and the PRESOR stockholder view through the mediator of perceptual moral attentiveness.	No

programs and there is mounting evidence that ethics education does have positive effects on a variety of outcomes (for a recent review, see Lau 2010).

The present study contributes to research on outcomes associated with ethics education in business schools by examining the nature of the relationship between ethics education and students' PRESOR. Importantly, this research is the first to propose and empirically examine the extent to which this relationship is mediated by the recently developed construct of moral attentiveness. Moral attentiveness is the degree to which individuals actively screen for and consider morality in their experiences and has been shown to be related to abstract global behaviors, such as general moral conduct, and hypothesized to be related to broad opinions on ethics-related matters (Reynolds 2008). The present research is the first to draw on social cognitive theory to examine the relationships between ethics education, moral attentiveness, and PRESOR, while controlling for the effects of age, gender, and social desirability bias. In examining these relationships, from the social cognitive perspective, this study opens the door for future investigations of the meditational role of moral attentiveness for other variables that may be related to PRESOR, such as culture (Ahmed et al. 2003; Ang and Leong 2000; Axinn et al. 2004; Etheredge 1999; Marta et al. 2000; Shafer et al. 2007), experience, college major, and exposure to a variety of stimuli, such as public bankruptcies (Elias 2004).

Findings regarding the control variables were generally as expected, based on prior research. For example, since moral attentiveness is not theoretically associated with CMD (Kohlberg 1981), role expectations (Ambrose and Schminke 1999), or neurophysiological differences (Reynolds 2006b) and the items in the moral attentiveness scale

would typically not be construed as indicating socially desirable responses, Reynolds (2008) proposed and found that neither age, gender, nor social desirability bias appear to be associated with moral attentiveness. The present study also found no evidence that age, gender, or social desirability bias is related to moral attentiveness.

Previous research has produced mixed results concerning associations between age and PRESOR factors, with some studies finding positive associations (e.g., Axinn et al. 2004) and others finding negative or no associations (e.g., Elias 2004; Shafer et al. 2007). The present study found no significant association between age and PRESOR. However, consistent with previous findings of negative associations between being male and attitudes about ethics and social responsibility (e.g., Borkowski and Ugras 1998; Elias 2004), being male was found to be significantly negatively associated with the PRESOR stakeholder view and significantly positively associated with the PRESOR stockholder view. It would be interesting to investigate potential mechanisms that might play a role in the association between gender and PRESOR and whether those mechanisms differ across contexts. For example, perhaps there are differences in socialization processes between genders and perhaps those differences vary across cultures.

Consistent with expectations, being concerned about social desirability was found to be significantly positively related to the PRESOR measure of the stakeholder view. Interestingly, however, there was not a significant association between social desirability and the PRESOR stockholder view (although the sign of the SDRS-5 coefficient was negative, consistent with the direction of the predicted negative relationship). It appears that social desirability bias can be a significant determinant of certain PRESOR

dimensions and therefore should be considered in future studies of this and related variables.

This study is the first to my knowledge to find essentially the same two-factor structure for the PRESOR items, using a sample of undergraduate business students in the US, as that identified by Etheredge (1999), using a sample of MBA students and managers in Hong Kong. This suggests that the factor structure of PRESOR may sometimes be the same across countries and cultures. However, because studies continue to find different factor structures of the PRESOR scale both within and across countries, dimensional analysis remains an important consideration in studies involving the PRESOR scale.

Despite exhibiting variations in its factor structures across studies, the dimensions of the PRESOR scale generally align with a stockholder/stakeholder dichotomy (Shafer et al. 2007). As shown in Table 1, the two PRESOR factors identified in this study clearly aligned with a stockholder versus stakeholder view of the importance of ethics and social responsibility to firm performance. The present study also identified a clear two-factor structure for the moral attentiveness scale, with the two factors being entirely consistent with the perceptual and reflective moral attentiveness factors identified by Reynolds (2008).

Table 7 summarizes whether each of the hypotheses was supported or not by the findings of the present study. The relationships found between the two moral attentiveness factors (reflective and perceptual) and the two PRESOR factors (the stakeholder and stockholder views) provide partial support for this study's predictions about these relationships in Hypotheses 3A, 3B and 4A, 4B. In particular, contrary to Hypotheses 3B and 4B, no relationship was found between perceptual moral attentiveness and either the stakeholder or stockholder view of ethics and social responsibility, respectively. This suggests that the degree to which an individual chronically *perceives* morality and moral elements in his or her experiences is not related his or her broader opinions on matters related to the role of ethics and social responsibility in business effectiveness.

This finding is somewhat counterintuitive in the sense that perceptually moral attentive individuals who chronically screen for moral elements in situations as they are encountered would be expected to hold opinions about the importance/subordination of ethics and social responsibility, consistent with Hypotheses 3B and 4B. However, Reynolds (2008) proposed that perceptual moral attentiveness is more related to stimulus recognition and coding incoming information about situations as they are encountered than to considering and reflecting on broader issues. Perhaps the specialized nature of the cognitive frameworks associated with perceptual moral attentiveness

reduces their level of applicability to considering and forming opinions about broader issues. If this is the case, then, according to the synapse model in social cognitive theory (Higgins 1989), which suggests that framework activation is a function of both applicability and accessibility, despite their accessibility, cognitive frameworks associated with perceptual moral attentiveness might not be activated when considering one's opinions on issues such as PRESOR because those frameworks have insufficient applicability. This study's findings concerning Hypotheses 3B and 4B suggest the interesting possibility that individuals who are high in perceptual moral attentiveness and low in reflective moral attentiveness might be well equipped to identify when a company performs poorly in terms of ethics and social responsibility, while, at the same time, not agreeing that such performance is important for organizational effectiveness. This seemingly counterintuitive prediction deserves further study.

Consistent with Hypothesis 3A, reflective moral attentiveness was found to be significantly positively related to the stakeholder view of ethics and social responsibility. This suggests that the degree to which an individual chronically *examines and considers* morality and moral elements in his or her experiences is related to his or her broader opinion that ethics and social responsibility are important for business effectiveness. This is consistent with the notions that reflective moral attentiveness is related to looking inward and both deliberately considering and reflecting on broader issues and intuitively and reflexively providing a general opinion (Reynolds 2008). Perhaps, unlike the case of perceptual moral attentiveness frameworks, which even if accessible may not be applicable to behaviors such as providing opinions on broader issues like PRESOR, reflective moral attentiveness frameworks are applicable to providing opinions on PRESOR and are therefore activated in individuals for whom they are accessible when those individuals are asked about their PRESOR views. By providing this first empirical evidence of a link between reflective moral attentiveness and an opinion on a broad issue, such as the PRESOR stakeholder view, the present research opens the door for future studies that investigate relationships between reflective moral attentiveness and opinions on other ethics-related matters.

Interestingly, contrary to the predictions of Hypothesis 4A, reflective moral attentiveness was not found to be significantly negatively related to the stockholder view of ethics and social responsibility, although the negative sign of the reflective moral attentiveness coefficient was consistent with the direction of the hypothesized negative relationship. Since the items in the PRESOR stakeholder and stockholder view measures are largely contrary, it may seem contradictory that individuals who are high in

reflective moral attentiveness could strongly agree with the stakeholder view but not strongly disagree with the stockholder view. Since the social desirability bias variable was also found to be significantly positively related to the PRESOR stakeholder view, but not significantly related to the PRESOR stockholder view, I examined the effects on the relationships between reflective moral attentiveness and the two PRESOR dimensions of first removing the social desirability variable from the models and then including both the social desirability variable and an interaction between social desirability and moral attentiveness. No significant interaction effects were observed and removal of the social desirability variable did not change the significance of the relationships between moral attentiveness and the two PRESOR dimensions.

One possible explanation for findings that individuals with personal characteristics (such as high levels of reflective moral attentiveness or tendencies to respond with extreme concern for social desirability) that would seem to indicate that they should agree with the stakeholder view and disagree with the stockholder view, actually agreeing with the stakeholder view, while not disagreeing with the stockholder view, may be related to the nature of the ethical ideologies held by those individuals. In particular, Etheredge (1999) found significant positive relationships between PRESOR measures of both the stakeholder and the stockholder views and high scores on a measure of relativism as an ethical ideology. Highly relativistic individuals recognize that there are many different ways to look at morality and therefore reject moral universals in favor of an ideology based on ethical skepticism (Forsyth 1980, 1981, 1992). According to Etheredge (1999), high relativists are able to simultaneously agree with both the stakeholder and the stockholder views because they can agree that ethics and social responsibility are important in principle and endorse the stakeholder view, while at the same time, allowing their skepticism to prevail and agree that ethics and social responsibility may have to be subordinated to other factors under certain circumstances. Thus, to tease apart the reasons why individuals who are high in reflective moral attentiveness might strongly agree with the stakeholder view, but not strongly disagree with the stockholder view, future studies will need to control for the ethical ideologies held by respondents.

This study's findings in support of Hypotheses 2A and 2B, of highly significant ($p < .001$) positive associations between ethics education and both reflective and perceptual moral attentiveness, are important. These findings provide the first evidence that ethics education may be one significant determinant of both dimensions of moral attentiveness, beginning the process of answering Reynolds (2008) call for research that investigates the origins of this

important, newly developed measure of individual differences in attention devoted to morality on a chronic basis.

Since moral attentiveness is defined as the extent to which individuals chronically perceive and reflect on morality and moral elements in their experiences (Reynolds 2008), this study's finding that ethics education is positively associated with moral attentiveness has important implications. In particular, drawing on the social cognitive perspective, the finding of an association between ethics education and moral attentiveness suggests that ethics education has benefits beyond some of the more commonly considered benefits of ethics training. These more commonly considered benefits of ethics education include increasing the CMD of participants (Kohlberg 1981) and providing improved skills and abilities in moral reasoning (Carlson and Burke 1998; Jones 2009; Lau 2010; Weber and Glyptis 2000; Weber and Green 1991). From the social cognitive perspective, these benefits of ethics training largely relate to causing relevant moral cognitive frameworks to become stored in memory and available (Higgins and King 1981) for future use in recognizing and encoding stimuli when those stimuli are applicable and, therefore, activate these moral cognitive frameworks (made available by ethics education) (Higgins 1996).

However, the findings of positive associations between education in business ethics and both dimensions of moral attentiveness support this study's proposal that beyond increasing the availability of moral cognitive frameworks, one of the more significant benefits of ethics education may be that it serves to prime those frameworks, increasing their levels of accessibility. Recall that accessibility of a cognitive framework refers to the readiness with which that framework can be retrieved from memory and/or utilized in stimulus recognition (Higgins and King 1981). Since more recently primed frameworks are more accessible in the short-run, while more frequently primed frameworks decay more slowly and are more accessible over the long-run (Higgins et al. 1985; Bargh et al. 1988), the degree of association between an educational program in ethics and moral attentiveness is likely to be affected by the nature of the particular program, a topic which deserves future study.

This research found that the only significant indirect association between ethics education and PRESOR is the significant positive association between ethics education and the PRESOR stakeholder view, through reflective moral attentiveness as a mediator (i.e., Hypothesis 5A was supported, but Hypotheses 5B, 6A, and 6B were not supported). These findings are consistent with the combined findings of a significant positive association between ethics education and reflective moral attentiveness (Hypothesis 2A supported) and a significant positive association between reflective moral attentiveness and the PRESOR

stakeholder view (Hypothesis 3A supported) and insignificant findings concerning associations between perceptual moral attentiveness the PRESOR stakeholder view (Hypothesis 3B not supported) and insignificant findings concerning associations between both reflective and perceptual moral attentiveness the PRESOR stockholder view (Hypotheses 4A and 4B not supported). This research also found a significant positive association between ethics education and the PRESOR stakeholder view that was not mediated by moral attentiveness (Hypothesis 1A supported), but no association between ethics education and the PRESOR stockholder view that was not mediated by moral attentiveness (Hypothesis 1B not supported).

Findings that ethics education is positively associated with the PRESOR stakeholder view both through reflective moral attentiveness, acting as a mediator (Hypothesis 5A), and through other means, not involving moral attentiveness as a mediator (Hypothesis 1A), support the notions that ethics education is related to opinions on some broad issues related to ethics and social responsibility through a variety of mechanisms. These mechanisms appear to include positive associations between ethics education and accessibility of moral cognitive frameworks, as well as positive associations between ethics education and ethical perceptions through other means. As previously discussed, these other means might include ethics education that involves topical readings and discussions that directly address and shape opinions on social responsibility (Gordon 1998), as well as indirect effects of ethics training on PRESOR through the mediators of increased CMD and training in specific skills and abilities in moral reasoning (Carlson and Burke 1998; Jones 2009; Lau 2010; Weber and Glyptis 2000; Weber and Green 1991) that make moral cognitive frameworks available for future activation when considering applicable issues (Higgins 1996; Higgins and King 1981). Future research is needed to examine which of these other means, besides moral attentiveness, affect associations between ethics education and PRESOR and opinions on other broad issues related to ethics and social responsibility.

Implications, Limitations, and Future Directions

Perhaps the most significant practical implications of this research relate to what this study's findings suggest could be among the more important issues to consider when designing educational programs in business ethics. In particular, the present study's findings suggest that one of the more significant mechanisms by which ethics education affects general opinions and perceptions concerning broad issues (such as PRESOR), which can, in turn, have significant effects on firm outcomes, is through its effects on

accessibility of moral cognitive frameworks. Perspectives from social cognitive theory would suggest that ethics education programs that involve frequent exposure to moral frameworks, over an extended period of time would be more likely to result in lasting accessibility of those frameworks (a state most consistent with the concept of moral attentiveness), while ethics education programs that are more temporally proximal to relevant decision points would be more likely to affect ethical perceptions and judgments at critical moments, but not in the long-run (Higgins et al. 1985; Bargh et al. 1988). Also, because different sources of accessibility of frameworks are additive (Bargh et al. 1986; Higgins 1989), it is likely that the effects of ethics education programs involving different formats of training could be additive, even while having their greatest effects on different types of framework accessibility.

These insights suggest that, when designing ethics training programs, schools and other institutions should consider how the characteristics of those programs would be likely to affect the readiness with which participants will be able to retrieve moral cognitive frameworks from memory when faced with moral and ethical issues, in both the short- and the long-run, and how these outcomes correspond to the interests of the organization and various stakeholders. This research suggests that the effects of ethics training programs depend not only on whether those training programs effectively teach skills and abilities related to ethical reasoning or increase the CMD of participants but also on whether and how they affect levels of accessibility of relevant cognitive frameworks.

There is certainly a need for future research that investigates how varying the characteristics of ethics educational programs affects levels of moral attentiveness and other measures related to individual differences in accessibility of moral cognitive frameworks. Some of the characteristics of ethics training programs that should be examined in future research include, outcomes associated with varying program duration and timing relative to decision events, outcomes associated with whether ethics training is provided in the format of a stand-alone course or involving ethics topics integrated into other courses or some combination thereof, and outcomes associated with whether the curriculum includes learning basic philosophical theories and approaches and involves techniques, such as group discussions, guest lecturers, and experiential learning.

A limitation of the present research is that it examined associations between moral attentiveness and whether or not participants had taken either a stand-alone course in ethics or a course in which ethics issues were integrated with the other course material as an important topic. Given that prior research has shown significant associations between a variety of relevant outcomes and ethics

educational programs that utilize either or both of these formats (Glenn 1992; Lopez et al. 2005; Luthar and Karri 2005; Okleshen and Hoyt 1996), this study's operationalization of the ethics education variable was considered suitable for an initial investigation of associations between ethics education and moral attentiveness. However, given the wide variety of potential characteristics of ethics training programs, with potentially different effects on outcomes related to accessibility of moral cognitive frameworks, there is much opportunity for future research in this area.

While the present research contributes to improved understanding of the associations between ethics education, moral attentiveness, and PRESOR, the cross-sectional nature of the data does not allow definitive conclusions about causality. Future research using longitudinal designs would allow more rigorous causal inferences. Such future research would also permit investigation of outcomes related to temporal factors in the model, such as the relative effects of recency versus frequency of priming moral cognitive frameworks using different educational techniques, the effects of duration of ethics training programs, and the nature of the decay functions of accessibility of moral cognitive frameworks associated with different programs of ethics education.

A sample of students from a college of business was thought to be well-suited to the present research for a number of reasons. First, a recent investigation by Shen et al. (2011) found that approximately 40 % of the articles published in the *Journal of Applied Psychology* during the past 13 years have used student samples and indicated that such samples are appropriate when studying populations of students and for research aimed at identifying general principles and relationships among variables. The present research is concerned with business student perceptions and general principles relating ethics education, moral attentiveness, and PRESOR. Reynolds (2008), himself, used student samples in four of the five studies in his *Journal of Applied Psychology* article in which he developed the moral attentiveness construct.

Second, the use of a sample of business students is consistent with the views that business students are the managers of the future, that understanding the impacts of ethics education on the development of their perceptions during the critical formative stage in their careers while in college is important, and that many upper division undergraduate students have sufficient education and experience to make the items on the PRESOR scale personally relevant to them. The majority of prior studies on PRESOR (Ahmed et al. 2003; Ang and Leong 2000; Axinn et al. 2004; Elias 2004; Etheredge 1999; Marta et al. 2000; Shafer et al. 2007), including the research by Singhapakdi et al. (1996) in originally developing the PRESOR scale,

also used college of business students, citing many of these same justifications.

It is noteworthy that the sample of business students used in the present research came from an institution with many working students, had a mean of 3 years of full-time work experience, ranged from 18 to 55 years of age with a mean of 24.3 years (which is over the age of 24 years that meta-analytic research, Schlaefli et al. 1985, revealed as a cut-off, above which ethics training has stronger effects), and represented a broad cross section of business majors taking a large, required core course. Accordingly, it is conceivable that the findings concerning associations between ethics education, moral attentiveness, and PRESOR among the business students in this study and other studies that use similar samples of business students would be generalizable to broader populations of students and certain groups of professionals in the corporate setting. In those situations where results can generalize to the corporate setting, many of the implications of this and related future research concerning design and implementation of ethics education programs in business schools to maximize accessibility of moral cognitive frameworks would also apply in the corporate setting.

However, while many factors support the appropriateness of using student samples in the present and similar research, future studies using different samples are needed to increase the external validity of this study's findings and allow examination of related issues. Future studies using samples, not only of students but also executives, and not only from the US but also from other nations, as well as from specific organizations and professions are thought to be a particularly high priority.

The present study's finding that reflective moral attentiveness mediates the relationship between ethics education and the PRESOR stakeholder view suggests the practical implication that measuring employees' levels of moral attentiveness might be useful for corporations in predicting requirements for ethics training and potential levels of support for various initiatives. This finding also opens the door for future research to investigate how a variety of personal, professional, and educational experiences might also be related to PRESOR through moral attentiveness as a mediator. For example, consistent with the notion that national culture affects the accessibility of cognitive frameworks (Higgins 1996; Hong et al. 2000), future research should investigate whether moral attentiveness appears to mediate previously identified associations between national culture and PRESOR (Ahmed et al. 2003; Ang and Leong 2000; Axinn et al. 2004; Etheredge 1999; Marta et al. 2000; Shafer et al. 2007).

Future research should also extend the notion of effects of national cultures to examine whether cultures within organizations and professions also appear to affect moral

attentiveness and PRESOR. Findings that organizational or professional cultures significantly affect moral attentiveness or other measures of accessibility of moral cognitive frameworks, as well as other outcomes related to accessibility of such frameworks, would have implications for the leaders of organizations and professional groups, who play significant roles in shaping the cultures of their institutions.

Beyond considering relationships involving ethics education and culture, the present research suggests future opportunities to investigate whether relationships between PRESOR and work experience, college major, or highly salient events, such as very public bankruptcies (Elias 2004), are also mediated by accessibility of moral cognitive frameworks and moral attentiveness. The moral attentiveness construct and social cognitive perspective may ultimately play important roles in improving understanding of the mechanisms by which a wide variety of variables have their effects not only on PRESOR in business but also on many other important outcomes in the study of business ethics. The implications for practitioners, researchers, and educators are considerable.

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