

Bad Apples, Bad Cases, and Bad Barrels: Meta-Analytic Evidence About Sources of Unethical Decisions at Work

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As corporate scandals proliferate, practitioners and researchers alike need a cumulative, quantitative understanding of the antecedents associated with unethical decisions in organizations. In this meta-analysis, the authors draw from over 30 years of research and multiple literatures to examine individual (“bad apple”), moral issue (“bad case”), and organizational environment (“bad barrel”) antecedents of unethical choice. Findings provide empirical support for several foundational theories and paint a clearer picture of relationships characterized by mixed results. Structural equation modeling revealed the complexity (multidetermined nature) of unethical choice, as well as a need for research that simultaneously examines different sets of antecedents. Moderator analyses unexpectedly uncovered better prediction of unethical behavior than of intention for several variables. This suggests a need to more strongly consider a new “ethical impulse” perspective in addition to the traditional “ethical calculus” perspective. Results serve as a data-based foundation and guide for future theoretical and empirical development in the domain of behavioral ethics.

Keywords: unethical behavior, intuition, decision making, intention

For over 30 years, researchers have attempted to determine why individuals behave unethically in the workplace. Once viewed as the province of philosophers—a “‘Sunday school’ subject not worthy of serious investigation”—behavioral ethics has become a legitimate and necessary field of social scientific inquiry (Treviño, 1986, p. 601). Indeed, as ethical scandals have garnered attention across multiple sectors of society (e.g., business, government, sports, religion, education), research examining the determinants of individual-level unethical choices at work has grown dramatically (for reviews, see O’Fallon & Butterfield, 2005; Tenbrunsel & Smith-Crowe, 2008; Treviño, Weaver, & Reynolds, 2006). Between 1996 and 2005, over 170 investigations were published (O’Fallon & Butterfield, 2005). Yet, despite this increased attention, much remains to be understood about how and under what circumstances individuals make unethical choices. Recent qualitative reviews of the behavioral ethics literature (O’Fallon & Butterfield, 2005; Tenbrunsel & Smith-Crowe, 2008) noted that studies have produced inconsistent findings for many proposed antecedents of unethical choices. These authors have called for

quantitative summaries to “derive statistically valid conclusions” about the proposed antecedents (O’Fallon & Butterfield, 2005, p. 405; see also Robertson, 1993).

In this paper, we attempt to provide a clearer empirical and theoretical picture of what we know (and don’t know) about multiple sources of influence on unethical behavior at work. We begin by using two meta-analytic techniques to summarize evidence of the influence of individual characteristics (cognitive moral development, locus of control, Machiavellianism, moral philosophy, and demographics), moral issue characteristics (i.e., moral intensity; T. M. Jones, 1991), and organizational environment characteristics (ethical climate, ethical culture, and codes of conduct) on unethical choices. We then investigate the potential moderating effect of using intention as a proxy for behavior—a practice commonly employed by behavioral ethics researchers (see O’Fallon & Butterfield, 2005; Weber, 1992; Weber & Gillespie, 1998). Last, using structural equation modeling, we investigate the unique explanatory power of each of our proposed antecedents on unethical intention and unethical behavior. Through these analyses, we not only aim to elucidate the relationships among popular predictors (e.g., ethical climate and ethical culture) but also seek to reveal the complexity of unethical decision making. We then use our results to present a potential road map for future research as well as implications for organizational practice.

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Definitional Framework for the Criterion: Unethical Behavior, Intention, and Choice

Rest’s (1986) four-stage model of ethical decision making has guided the majority of research and narrative reviews of research findings within behavioral ethics (see T. M. Jones, 1991; Loe, Ferrell, & Mansfield, 2000; O’Fallon & Butterfield, 2005; Treviño et al., 2006). According to this model, individuals pass through

several stages during the process of making an ethical or unethical decision. The process eventually leads to the stage of moral intention (when one commits to a particular action) and ends with moral action or behavior (when one carries out the intended behavior).¹ In this paper, we follow Rest (1986) in organizing our analysis and defining our focal dependent variables. *Unethical intention* is defined as the expression of one's willingness or commitment to engage in an unethical behavior. *Unethical behavior* is defined as any organizational member action that violates widely accepted (societal) moral norms. The latter definition is consistent with recent behavioral ethics literature (Kaptein, 2008; Treviño et al., 2006). According to Treviño et al., "behavioral ethics refers to individual behavior that is subject to or judged according to generally accepted moral norms of behavior . . . Within this body of work . . . researchers have focused specifically on unethical behaviors, such as lying, cheating and stealing" (2006, p. 952). Therefore, employee behaviors such as theft, sabotage, lying to customers, and misrepresentation in financial reports are included in our definition. Other negative workplace behaviors, such as lateness, are not included because they do not necessarily violate widely accepted moral norms.

We also distinguish unethical behavior from two related concepts: workplace deviance and illegal behavior. First, unethical behavior is not a synonym for workplace deviance or counterproductive work behavior (Sackett, Berry, Wiemann, & Laczko, 2006). These latter behaviors are defined as violating organizational norms (Bennett & Robinson, 2003) rather than widely accepted societal norms. It is possible for a behavior to violate widely accepted societal norms while remaining normative in the organization (e.g., lying to customers). However, some less serious forms of workplace deviance (e.g., gossiping, working slowly) that violate organizational norms may not violate widely accepted societal norms (Dalal, 2005; Robinson & Bennett, 1995). Thus, despite some overlap, all forms of counterproductive or deviant work behavior do not fall under the unethical behavior definition. In this meta-analysis, we include only serious forms, such as production deviance (Robinson & Bennett, 1995), as described further in the Method section.

Additionally, some unethical behaviors overlap with illegal behaviors. This relationship between ethics and the law can be represented as a Venn diagram (Treviño & Nelson, 2007), wherein the overlapping area of the two circles represents behaviors that are both illegal and unethical. For example, stealing is considered to be unethical because it breaches widely accepted societal norms. It is also illegal. However, the two circles do not overlap completely. Some of the many unethical behaviors that are widely prohibited in corporate codes of conduct (Ethics Resource Center, 2007; e.g., conflicts of interest such as giving or receiving large gifts to influence business relationships) are often not illegal. Nevertheless, because of widespread agreement that they are wrong, these behaviors are defined as unethical behavior.

The distinction between unethical intention and unethical behavior is important because it influences both theory and methodology in the behavioral ethics literature. A common assumption based on Rest's (1986) ethical decision-making model is that intention precedes behavior and, thus, can be substituted for behavior when the latter is unavailable for study (Ajzen, 1991; Fishbein & Ajzen, 1975). Accordingly, and following established convention in the behavioral ethics literature (e.g., Borkowski &

Ugras, 1998; Martin & Cullen, 2006; Whitley, 1998; Whitley, Nelson, & Jones, 1999), we begin by treating unethical intention and unethical behavior as one overarching construct, hereafter referred to as *unethical choice* (see Figure 1). We then separate studies of unethical intention and unethical behavior to investigate the potential moderating effects of using unethical intention versus unethical behavior as a criterion in this realm of research.

Hypothesis Development: Sets of Antecedents

In this section, we present our hypotheses for unethical choice (unethical intention and unethical behavior) based on three main categories of antecedents. The antecedents included in our study—and thus, the categories used herein—were drawn from existing work, as with all meta-analyses. On the basis of our exhaustive search of the literature (explained in detail below), we identified three main types of antecedents that can be classified as characteristics of the individual ("bad apples"), the ethical issue itself ("bad cases"), or the organizational environment ("bad barrels"). First, according to the bad apples argument, unethical behavior at work is the result of "a few unsavory individuals" (Treviño & Youngblood, 1990, p. 378). Thus, we begin this section by proposing the effects of individual differences (characteristics of potentially bad apples) on unethical choices at work (including cognitive moral development, moral philosophy, Machiavellianism, locus of control, job satisfaction, and demographic variables). Second, we consider how aspects or circumstances of a particular ethical dilemma being faced (such as closeness to the victim or anticipated harm; T. M. Jones, 1991) may provoke or prevent unethical choices. We refer to these characteristics as "bad cases" because we believe the term *case*, with its context-sensitive connotation, aptly conveys the idea that moral issue characteristics vary by the specific circumstances being faced at the time (along with the symbolic meaning of case as a smaller, more proximal container than barrels for individual apples). Cases subsume features of specific moral dilemmas that exist within organizations and that are experienced by individual employees. Third and last, we hypothesize how unethical choices may reflect Treviño and Youngblood's (1990) "bad barrels," or characteristics of one's more general organizational environment (ethical climate, ethical culture, and codes of conduct).

Individual Characteristics

Cognitive moral development. Tested and developed for over 20 years in developmental psychology before being introduced to the organizational literature (e.g., Treviño, 1986), the theory of cognitive moral development (CMD; Kohlberg, 1969) explains how individuals advance from childhood to adulthood in the complexity and elaboration of their thinking about why actions are morally right or wrong (Rest, 1986). Rather than focusing on the final decisions themselves, the theory emphasizes the individ-

¹ Although Rest (1986) originally used the term *moral motivation* to describe this component, it has been equated in several reviews (and likewise many empirical studies) with "moral intention" (e.g., T. M. Jones, 1991; Loe et al., 2000; O'Fallon & Butterfield, 2005; Treviño et al., 2006). The terms are conceptually similar in meaning and relate to an individual's readiness or willingness to engage in a particular action.

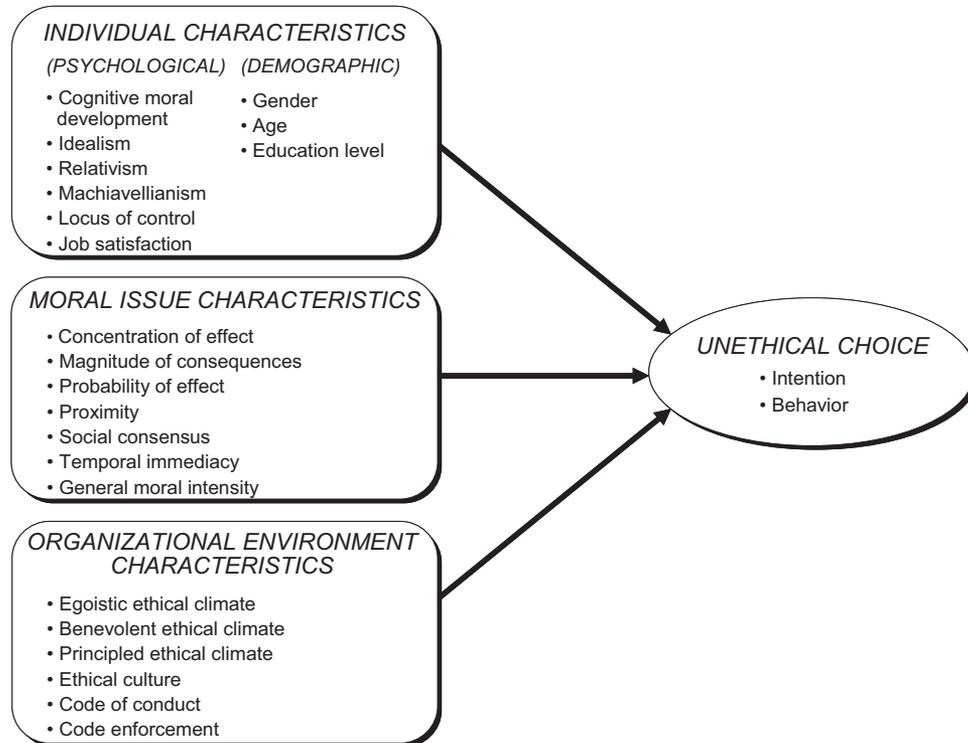


Figure 1. Meta-analytic framework for antecedents of unethical choices in the workplace.

ual's reasoning process, particularly the justifications individuals provide for their thinking in ethical dilemma situations. Levels of CMD exist on a hierarchy of five stages. As individuals develop, they advance from stage to stage in sequence. Although CMD is considered to be generally stable in adults, one's CMD can continue to advance in adulthood with training interventions and other opportunities to practice moral reasoning (cf. Treviño, 1992a).

At the highest level of CMD ("principled," or Stage 5), individuals cognitively process ethical dilemmas by using sophisticated reasoning. In making ethical judgments, they rely upon ethical principles of justice and rights and consider societal good. However, most adults operate at the "conventional" level of CMD, meaning that their judgments about what is right are influenced by the expectations of peers and significant others (Stage 3) or by policies and rules including the law (Stage 4; for a review, see Treviño & Weaver, 2003). When thinking about what is right and wrong, individuals with the lowest level of CMD invoke considerations such as obedience and avoiding punishment (Stage 1) or acting in their own self-interest (Stage 2). CMD is thought to guide behavior for cognitive consistency reasons. For someone who is capable of reasoning in sophisticated ways about an ethical issue, acting in a way that reflects lower level thinking is uncomfortable because of the cognitive tension that is created.

The Defining Issues Test (Rest, 1986) is the most widely used measure of CMD. Individuals respond to a series of hypothetical ethical dilemmas by rating and ranking the importance of various types of considerations that could be taken into account in deciding what is the right thing to do. Many empirical studies have reported a negative relationship between CMD and unethical choices, in-

cluding behaviors in the workplace (see Blasi, 1980; for reviews, see Treviño, 1992a, and Treviño et al., 2006). Therefore, we hypothesized a negative relationship between CMD and unethical choices:

Hypothesis 1: CMD is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Moral philosophies—idealism and relativism. Moral philosophies are derived from normative philosophical theories (Forsyth, 1980). Measures of moral philosophy capture individuals' stated beliefs or personal preferences for particular normative frameworks. Among the many moral philosophies available, Forsyth (1980) proposed that most people can be classified along two separate continua: (a) *idealism*, one's concern for the welfare of others, and (b) *relativism*, one's emphasis on moral principles being situationally determined rather than universal. Highly idealistic individuals believe that one can always avoid harming others when faced with an ethical dilemma, but nonidealists believe that "harm is sometimes . . . necessary to produce good" (Forsyth, 1992, p. 462). Individuals who are low on relativism believe that every situation is governed by a common moral principle, but highly relativistic individuals believe that situations differ and that one must weigh the circumstances when making decisions (i.e., no moral principle can govern every situation). Although the content of these philosophies overlaps somewhat with CMD (e.g., someone low on relativism may believe that justice is an important ethical principle), moral philosophies focus more on individually

preferred ways of thinking. In contrast, CMD offers a developmental approach to the moral reasoning process, with higher stages representing more mature and cognitively complex ways of thinking. Also, CMD is arrayed along a single progression of stages (i.e., a single continuum), but Forsyth's concepts represent constructs on two separate, distinct continua. Past research suggests that relativism and idealism do not correlate to a high degree with CMD (e.g., Forsyth, 1980).

Although Forsyth (1992) did not propose direct links between moral philosophy and ethical choice, some investigations have shown that, compared to relativists, idealists are more likely to judge unethical actions critically (e.g., Barnett, Bass, & Brown, 1994; Forsyth, 1985). In this way, idealism may be negatively related to unethical choices, because idealists are more concerned about harming others (Henle, Giacalone, & Jurkiewicz, 2005). Relativism, on the other hand, may be positively related to unethical choices, because these choices are easier to rationalize for relativists, who lack strict moral guidelines.

Hypothesis 2: A moral philosophy of idealism is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Hypothesis 3: A moral philosophy of relativism is positively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Machiavellianism. Drawing from the political writings of Niccolo Machiavelli (Gilbert, 1971), Christie and Geis (1970) introduced the Machiavellianism personality construct. Individuals high in Machiavellianism, which is generally "synonymous with amoral action, sharp dealing, hidden agendas, and unethical excess" (Nelson & Gilbertson, 1991, p. 633), tend to use interpersonal relationships opportunistically and deceive others for personal gain (Christie & Geis, 1970). In contrast to CMD and moral philosophies, Machiavellianism represents a more traditional personality trait. Yet, it also has a clear moral component that should be linked to the incidence of unethical choices in an organizational environment. In fact, some experiments have found Machiavellianism conducive to decisions to pay kickbacks in a marketing simulation (Hegarty & Sims, 1978, 1979).

Hypothesis 4: Machiavellianism is positively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Locus of control. Another personality construct, locus of control (Rotter, 1966), represents a single continuum that captures the beliefs of individuals about whether the outcomes of their actions are contingent on what they do or on the machinations of outside forces. *Internals* attribute life's events to their own abilities or efforts. *Externals* attribute life's events to some external source, such as fate, luck, or powerful others.

Unlike the constructs described above, locus of control does not have ostensibly moral or ethical content, so its relationship to unethical behavior is less obvious. Treviño (1986), however, proposed that internals would be less likely to engage in unethical choices. Her theory posits that, because internals see outcomes as contingent on their own actions, they are more likely to recognize

their personal responsibility for those outcomes. Following this logic, internals faced with pressure or opportunity to act unethically will be more likely to see that such an action will bring about potentially negative outcomes (i.e., harm to others), and thus they will be more likely to avoid it. On the other hand, externals may be more likely to act unethically because they can more easily offload blame onto someone or something else (powerful others, chance, or uncontrollable circumstances). Although the findings in the literature remain "somewhat mixed" (O'Fallon & Butterfield, 2005, p. 392), several empirical studies support the above theoretical argument (e.g., G. E. Jones, 1992; Treviño & Youngblood, 1990). For this reason, we hypothesized that external locus of control would be related to increased unethical choices.

Hypothesis 5: External locus of control is positively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Job satisfaction. Although job satisfaction is not an individual difference per se, we have included it in the individual characteristics section of our explanatory framework for two reasons. First, job satisfaction is at least partially dispositional (i.e., Arvey, Bouchard, Segal, & Abraham, 1989; Staw, Bell, & Clausen, 1986). Second, as a positive or negative evaluation of one's job (Weiss & Cropanzano, 1996), job satisfaction occurs at the individual level. Indeed, it is this personal evaluation that suggests that job satisfaction may be related to unethical choices. For example, Adams's (1965) equity theory suggests that dissatisfied individuals seek to balance perceived imbalances of their outcome/input ratios relative to the ratios of others. These avenues can include unethical actions designed to "even the score" (e.g., stealing company property). Similarly, empirical results support a negative relationship between job satisfaction and workplace deviance (i.e., Dalal, 2005; Judge, Scott, & Illies, 2006). These ideas and data led us to hypothesize that higher job satisfaction would reduce the incidence of unethical choices.

Hypothesis 6: Job satisfaction is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Demographics. Demographic variables (e.g., gender, age, education) are among the most widely studied individual-level factors in behavioral ethics (O'Fallon & Butterfield, 2005). Despite this attention, empirical results have often been inconsistent (Tenbrunsel & Smith-Crowe, 2008) and theoretical explanations have been limited. In this section, we present hypotheses for gender, age, and education level. However, we consider these hypotheses to be tentative because theory and empirical evidence suggesting a particular direction of effect are generally weaker for these antecedents than for other variables included in the meta-analysis.

Gender. Business ethics researchers have long been interested in the effects of gender on ethical decision making (e.g., Ambrose & Schminke, 1999; see McCabe, Ingram, & Dato-on, 2006). For example, Gilligan (1977) argued strongly that females and males reason differently about ethical issues and suggested that females are more likely to make judgments based upon care for others. In this way, females should be more ethical because they will be more

concerned about and refrain from any action that would harm other people. Despite over 30 years of research, however, empirical results on gender differences in ethical decision making are mixed (Tenbrunsel & Smith-Crowe, 2008). Meta-analyses by Borkowski and Ugras (1998) and Franke, Crown, and Spake (1997) found that female business students report more ethical attitudes and make more ethical judgments than do male business students. When focusing on unethical choices specifically, some studies have found that women behave more ethically than men (e.g., Latham & Perlow, 1996) and others have reported nonsignificant (e.g., Hegtarty & Sims, 1978, 1979) or trivial differences (see Thoma & Rest, 1986, for a review). Although the relationship remains unclear, the weight of empirical evidence and theory led us to predict that women would be less likely than men to make unethical choices.

Hypothesis 7: Gender (0 = female, 1 = male) is positively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Age. Research on age and unethical choice has produced inconsistent results (O'Fallon & Butterfield, 2005; Tenbrunsel & Smith-Crowe, 2008), including positive (i.e., Henle et al., 2005), negative (i.e., Lason & Bass, 1997), and nonsignificant (i.e., Singhapakdi, 1999) relationships. However, the fact that age (at least through young adulthood) has been empirically linked with CMD (Kelley, Ferrell, & Skinner, 1990; Kohlberg, 1969; Treviño, 1992a) suggests that older individuals—perhaps through instructive life experiences—may operate at higher levels of moral reasoning (Treviño, 1992a; Treviño & Weaver, 2003). Age has also been associated with lower Machiavellianism (Hunt & Chonko, 1984). Further, the negative relationship between age and criminal behavior is well known in the criminology literature: Violent and nonviolent crime peak during the teenage years and then decline steadily during the adult years (Farrington, 1986). Thus, we proposed that age would be associated with fewer unethical choices.

Hypothesis 8: Age is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Education level. Theorists have suggested, in arguments similar to those for age, that individuals with higher education levels may encounter more “teachable” ethical dilemmas and, thus, less likelihood of unethical choices (Tenbrunsel & Smith-Crowe, 2008). Indeed, CMD research has found that years of formal education remains the staunchest covariate of CMD, with some correlations reported as high as $r = .50$ (Rest, 1986). Although the theoretical link is not entirely clear, researchers have speculated that higher education supports general cognitive and social development, including a feeling of greater personal responsibility for individual outcomes (see Thoma & Rest, 1986, for a review). It is also possible that adults with higher education have been exposed to ethics training that more explicitly targets moral judgment (e.g., Dellaportas, 2006). Therefore, we hypothesized that a higher level of education would tend to reduce unethical choices. However, some of the most vivid, public examples of unethical behavior in business have been committed by those with advanced degrees, and this has led many to question the relationship between higher

education (especially business education) and ethical conduct (e.g., Pfeffer, 2003). The lack of clear or compelling data sets an ideal stage for applying meta-analysis.

Hypothesis 9: Education level is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Moral Issue Characteristics

Complementing person-based factors, characteristics of the ethical dilemma being faced by the person have also been proposed to affect unethical choices. According to T. M. Jones (1991), researchers need to move beyond a focus on persons or organizational features to aspects of the moral issue being broached—that is, to consider the moral intensity of the situation.

Moral intensity. T. M. Jones (1991) formulated an issue-based approach to ethical decision making and proposed that the moral intensity of a particular ethical issue comprises six distinct elements. These include (a) *magnitude of consequences*, the total harm that could befall victims of an unethical choice; (b) *social consensus*, the degree of peer agreement that the action is wrong; (c) *probability of effect*, the likelihood that the action will result in harm; (d) *temporal immediacy*, the length of time before harmful consequences of the act are realized; (e) *proximity*, the social, psychological, cultural, and physical nearness to the victim of the act; and (f) *concentration of effect*, the “inverse function of the number of people affected by an act of given magnitude” (T. M. Jones, 1991, p. 377). According to the theory, as any one element of these situational features increases, the overall moral intensity of the situation increases proportionally.

T. M. Jones (1991) proposed that moral intensity is likely to reduce the incidence of unethical choices, in part by increasing attributions of responsibility to oneself for the choice’s likely consequences to others. Thus, when one considers an unethical issue, such as dumping toxic waste into a river, the possibility of substantial harm and nearness to the victims should increase moral intensity and thereby decrease one’s intention to dump the waste and the likelihood of actually doing so. Although Jones’s hypotheses have received some empirical support in vignette-based studies (e.g., May & Pauli, 2002; Nill & Schibrowsky, 2005; Paolillo & Vitell, 2002), questions remain regarding the unique effects of the specific intensity dimensions (see O’Fallon & Butterfield, 2005). Thus, we included each of the six issue-based elements of moral intensity (along with a general measure of moral intensity) in our hypotheses and analyses and predicted that each element would reduce the likelihood of unethical choices. Because no existing studies in the workplace have connected these dimensions to unethical behavior, our hypotheses are directed only at unethical intention.

Hypotheses 10a–g: The moral intensity of an issue—including (a) concentration of effect, (b) magnitude of consequences, (c) probability of effect, (d) proximity, (e) social consensus, (f) temporal immediacy, and (g) general moral intensity—is negatively related to unethical choices (as intentions) in organizations.

Organizational Environment Characteristics

In this section, we examine what might be considered more distal (than moral issue features) elements in an individual's environment. These broader constructs capture shared beliefs, norms, and formalized procedures and rules for governing workplace behavior. We specifically hypothesized about the effects of ethical climate, ethical culture, and the existence and enforcement of a code of ethics on unethical choices.

Ethical climate and culture. Behavioral ethics researchers have often described an organization's environment in terms of perceived ethical climate (Victor & Cullen, 1988) or perceived ethical culture (Treviño, 1986, 1990). Both constructs refer to ethics-relevant features of the organizational environment, and they appeared in the behavioral ethics literature at about the same time (Treviño, 1986; Victor & Cullen, 1988). However, they were initially developed for different purposes, and their definitions diverge. We broach each one in turn, developing separate hypotheses for each construct's influence on unethical choice. Then, we review their distinctions.

Ethical climate. Ethical climate (see Martin & Cullen, 2006, for a recent review)² can be conceptualized as a type of organizational work climate (Reichers & Schneider, 1990). However, rather than a single climate dimension, ethical climate was conceptualized as "a group of prescriptive climates reflecting the organizational procedures, policies, and practices with moral consequences" (Martin & Cullen, 2006, p. 177). This multidimensional ethical climate construct was introduced by Victor and Cullen (1987, 1988) to measure and differentiate among multiple dimensions of shared employee beliefs that "arise when members believe that certain forms of ethical reasoning or behavior are expected standards or norms for decision-making within the firm" (Martin & Cullen, 2006, p. 177). Victor and Cullen asserted that employee perceptions of ethical climate could be mapped onto two independent dimensions: (a) ethical criteria, including egoism, benevolence, and principled, and (b) locus of analysis, including individual, local, and cosmopolitan. Although the latter dimension was based on sociology, the former dimension was drawn from philosophy and "the basic criteria used in moral reasoning, i.e., maximizing self-interest, maximizing joint interests, or adherence to principle, respectively" (Victor & Cullen, 1988, p. 104). By combining these dimensions, Victor and Cullen (1987, 1988) proposed the existence of nine types of ethical climates; they also created the Ethical Climate Questionnaire to measure perceptions of these ethical climates. However, empirical studies that include factor analyses (e.g., Cullen, Victor, & Bronson, 1993; Victor & Cullen, 1988) have generally found support for the uniqueness and importance of only a subset of the proposed nine ethical climates. Common factors derived in empirical research include an egoism-based dimension, a benevolence-based dimension, and multiple principle-based dimensions (termed independence, rules, and laws and code to coincide with the locus of analysis described above; see Martin & Cullen, 2006).

In our meta-analysis, we focused on three key dimensions that parallel the three proposed ethical criteria (i.e., egoism, benevolence, and principle). Following previous research (i.e., Barnett & Vaicys, 2000; Watley, 2002; Wimbush, Shepard, & Markham, 1997), we focused on one principle-based dimension that combines rules with the laws and code categories into a climate

referred to as "principled." A sample Ethical Climate Questionnaire (Victor & Cullen, 1988) item for principled climate is "It is important to follow strictly the organization's rules and procedures." Instrumental and caring climates correspond to the ethical criteria of egoism and benevolence, respectively, so we used the latter labels. A sample egoism item is "In this organization, people protect their own interests above other considerations." A sample item measuring a benevolent climate is "People in this organization are actively concerned about the customer's and public's interest." Finally, we excluded Victor and Cullen's independence dimension from our analysis because individuals in this environment are presumed to "do as they see fit" (Treviño, Butterfield, & McCabe, 1998, p. 450). Incidences of unethical behavior would then represent personal inclinations rather than ethical climate.

Ethical climates represent beliefs about "what constitutes right behavior" in an organization and, thus, provide behavioral guidance for employees (Martin & Cullen, 2006, p. 177). With an egoistic climate, for example, employees perceive that the organizational environment emphasizes self-interest (Victor & Cullen, 1988) and encourages decision making based on personal instrumentality. Therefore, the normative push for individuals in such a climate is to make self-interested choices without considering the social consequences of their actions (Martin & Cullen, 2006). Indeed, research shows a positive relationship between egoistic climates and unethical choices (e.g., Barnett & Vaicys, 2000; Peterson, 2002b). Therefore, we hypothesized the following:

Hypothesis 11: Egoistic ethical climates in organizations are positively related to unethical choices as (a) unethical intention and (b) unethical behavior.

In a benevolent ethical climate, individuals see that what is best for employees, customers, and the community is important in the organization (Victor & Cullen, 1988). That is, there is a (shared) perception that nurturance or care for others is valued by the organization and is an important part of the firm's social fabric. In a principled organizational climate, decisions are perceived to be based on formal guidelines, such as laws and explicit policies regarding appropriate behavior (Victor & Cullen, 1988). Decisions are considered ethical when they comply with those governing rules (Barnett & Vaicys, 2000). Accordingly, through a focus on concern for others (benevolent climate) or emphasis on rule-abiding behavior (principled climate), both the benevolent and principled climates are likely to encourage fewer unethical choices (Wimbush & Shepard, 1994).

Hypothesis 12: Benevolent climates in organizations are negatively related to unethical choices as (a) unethical intention and (b) unethical behavior.

Hypothesis 13: Principled climates in organizations are negatively related to unethical choices as (a) unethical intention and (b) unethical behavior.

² Martin and Cullen (2006) used meta-analytic techniques to explore the relationship between ethical climate dimensions and "dysfunctional behavior." However, we take this relationship a step further by (a) adding studies not included in their meta-analysis, (b) comparing ethical climate with ethical culture, and (c) separating the intention and behavior results in a section below.

Ethical culture. Treviño (1986) proposed that because most employees are at the conventional level of CMD and are therefore susceptible to external influence, their behavior should be influenced by the guidance provided by an organization's ethical culture (Treviño, 1990). Treviño et al. (1998) later differentiated ethical culture, with its narrower focus on formal and informal organizational systems aimed at behavioral control, from ethical climate, with its broader focus on perceived organizational values. The ethical culture construct was conceptualized as representing a more singular perception of the organization's systems, procedures, and practices for guiding and supporting ethical behavior.

These ethical culture systems communicate behavioral and accountability expectations. That is, ethical culture includes specific organizational elements such as executive ethical leadership (e.g., "The top managers of this organization represent high ethical standards"; M. E. Brown, Treviño, & Harrison, 2005) and reward or disciplinary policies (e.g., "Management disciplines unethical behavior"; Treviño et al., 1998). The combination contributes to employees' beliefs about the patterns of ethical and unethical conduct that the organization supports or discourages. If ethical culture systems such as leadership, norms, and reward policies encourage the achievement of bottom-line goals only, with no attention to ethical concerns, the culture is more likely to support unethical conduct.

Hypothesis 14: The strength of ethical cultures in organizations is negatively related to unethical choices as (a) unethical intention and (b) unethical behavior.

Theoretical elaboration of the ethical culture construct (Treviño, 1990) was based upon the assumption that an organization with a strong ethical culture sends clear and targeted messages to employees about behavioral expectations via multiple organizational mechanisms. The explicit goal was to propose a relationship between employees' perceptions of ethical culture and employee ethical behavior (Treviño, 1990). In contrast, ethical climate was originally developed with the idea that it should differentiate between organizations and that its dimensions should be associated with employee attitudes such as organizational commitment (Cullen et al., 1993). Others (e.g., Wimbush & Shepard, 1994) further developed the connection with behavior.

We do not explicitly hypothesize here about the relative predictiveness or discriminant validity of ethical climate versus ethical culture, as few studies have examined their simultaneous relationship with unethical choice (e.g., Treviño et al., 1998). Instead, we see our meta-analysis as part of the sorting out that needs to occur in this literature. That is, the cumulative effect sizes involving these two sets of constructs will answer questions about whether one contributes more or less than the other to unethical choice or whether these constructs overlap in their influence.

Codes of conduct. Codes of ethical conduct in work organizations extend as far back as 1913 when J. C. Penney introduced a set of guidelines for proper employee behavior (Treviño & Weaver, 2003). Today, codes have become routine in workplaces across the business, government, and nonprofit sectors (Ethics Resource Center, 2007; Pater & Van Gils, 2003), though it is unclear whether their existence actually discourages unethical behavior (Helin & Sandstrom, 2007; McCabe, Treviño, & Butterfield, 1996). The received wisdom would argue for a code's ability

to reduce unethical behavior by heightening issue salience and clarifying appropriate and inappropriate behaviors (Somers, 2001; Treviño & Brown, 2004). Although several studies have reported a negative relationship between the existence of a code and unethical choices (i.e., Hegarty & Sims, 1979; Izraeli, 1988; McCabe et al., 1996; Okpara, 2003; Peterson, 2002a; Treviño et al., 1998), others have noted no significant effect (e.g., Brief, Dukerich, Brown, & Brett, 1996; Cleek & Leonard, 1998). Despite these mixed results, the balance of existing evidence supports the idea that an organizational code of conduct reduces the incidence of unethical choices.

Hypothesis 15: Existence of a code of conduct is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Related to the issue of code existence is the extent to which an organization enforces its code (McCabe et al., 1996; Treviño & Weaver, 2001). According to McCabe et al., an effective code "must be more than 'window dressing'" (1996, p. 464). One way for the organization to convey this to employees is to discipline rule violators in a visible manner (Treviño, 1992b). In this way, a code of conduct is perhaps a primary or salient component of ethical culture. Although few empirical studies have investigated the impact of code enforcement on unethical choices, several of these studies supported a negative relationship (i.e., McCabe et al., 1996; Paolillo & Vitell, 2002; Treviño & Weaver, 2001). Thus, we expected that code enforcement would reduce unethical choices (e.g., McCabe et al., 1996; Treviño & Weaver, 2001).

Hypothesis 16: Enforcement of a code of conduct is negatively related to unethical choices, as (a) unethical intention and (b) unethical behavior, in organizations.

Further exploration of inputs.

Other moderators. In addition to investigating the potential moderating effects of intention and behavior, we looked for any differences that might exist in the following methodological moderators: type of sample (student vs. employee), publication source (peer-reviewed journal vs. unpublished), and research strategy (field study vs. lab experiment). These moderators were chosen because of their widespread use and potential to impact empirical results in the behavioral ethics literature. However, we do not have a theoretical basis to present any a priori hypotheses for these variables and thus report only the results below.

Comparative strength of effects. If the data are available, one of the advantages of meta-analyses is that they can evaluate the unique or incremental power of hypothesized antecedents in a cumulative way. To that end, we collected and aggregated every pairwise correlation possible among our focal antecedents (which totaled 105 additional meta-analytic relationships). Although we scoured the literature for studies that included correlations between the individual, moral issue, and organizational environment characteristics, very few studies included variables from more than one category of antecedents (this is apparent from the lack of overlapping elements in the middle columns of Table 1). Therefore, we were able to conduct this examination of comparative strength only within each of our three groupings of independent constructs: individual, moral issue, and organizational environment character-

Table 1
Summary of Studies Included in the Meta-Analysis

Study	Year	Sample ^a	Independent variable			Dependent variable
			Individual ^b	Moral issue ^c	Organizational ^d	
Abdolmohammadi & Sultan	2002	S	CMD			Behavior
Adams et al.	2001	NS			CD EX	Behavior
Aquino	1998	S			BNV	Behavior
Aquino & Douglas ^e	2003	NS	DEMO			Behavior
Ashkanasy et al.	2006	S	DEMO			Behavior
Baker et al. ^e	2006	NS			CUL	Behavior
Baldwin et al.	1996	NS	CMD			Behavior
Bancroft ^e	2002	S	CMD			Intention
Banerjee et al.	1996	NS	DEMO			Intention
Barnett	2001	S		MOC		Intention
Barnett & Vaicys ^e	2000	NS			EGO, BNV, PRC	Intention
Barnett & Valentine ^e	2004	NS	DEMO	MOC, PRX, SC, TI		Intention
Bass et al. ^e	1999	NS	IDL, REL, MACH, LOC			Intention
Bay & Greenberg	2001	S	DEMO			Behavior
Betz et al.	1989	S	DEMO			Intention
Beu ^e	2000	S	CMD, MACH, LOC, DEMO			Intention
Bhal & Debnath ^e	2006	NS	IDL, REL			Intention
Brandon	2003	S	CMD			Intention
Brief et al.	1996	NS			CD EX	Behavior
Brown & Weathington ^e	2008	S	JS			Behavior
Bruk-Lee & Spector	2006	NS	DEMO			Behavior
Buchan ^e	2005	NS			EGO	Intention
Burnfield et al. ^e	2005	NS	JS			Behavior
Chen & Spector ^e	1992	NS	JS			Behavior
Cherry & Fraedrich ^e	2000	NS	LOC			Intention
Cherry et al. ^e	2003	NS	DEMO			Intention
Cleek & Leonard	1998	S			CD EX	Intention
Coate & Frey	2000	S	DEMO			Intention
Cohen et al.	1998	S	DEMO			Intention
Cohen et al. ^e	2007	NS	CMD, DEMO			Intention
Cole	1996	NS	CMD			Intention
Detert et al. ^e	2008	S	LOC, DEMO			Intention
Doty et al.	2005	S	DEMO			Intention
Douglas & Wier ^e	2000	NS	IDL, REL			Intention
Eastman et al.	1996	NS	DEMO			Intention
Ethics Resource Center ^e	2000	NS			CD EX, CD ENF	Behavior
Ethics Resource Center ^e	2003	NS			CD EX, CD ENF	Behavior
Ethics Resource Center ^e	2005	NS			CD EX, CD ENF	Behavior
Flannery & May ^e	2000	NS		MOC	EGO	Intention
Fox & Spector ^e	1999	NS	LOC, JS			Behavior
Fox et al. ^e	2007	NS	JS			Behavior
Fritzsche ^e	2000	NS			BENV, PRC	Intention
Goles et al.	2006	NS		COE, MOC, POE, PRX, SC, TI		Intention
Green et al.	2000	NS	DEMO			Intention
Greenberg ^e	2002	NS	CMD			Behavior
Gruys & Sackett ^e	2003	NS	DEMO			Intention
Gul et al.	2003	NS	CMD, DEMO			Intention
Harrell & Hartnagel	1976	S	MACH			Behavior
Harrington	1996	NS			CD EX	Intention
Hartenstine ^e	2006	NS			EGO, BNV, PRC, CUL	Intention
Henle et al. ^e	2005	NS	DEMO			Behavior
Honeycutt et al.	1995	NS	JS			Behavior
Hudson & Miller	2005	S	DEMO			Intention
Izraeli	1988	NS			CD EX	Behavior
Jackson	2000	NS	DEMO			Behavior
Jones ^e	1992	S	CMD, REL, DEMO			Intention
Jones & Kavanagh ^e	1996	S	MACH, LOC			Intention
Kamp & Brooks ^e	1991	S, NS	JS		CUL	Behavior
Kish-Gephart et al. ^e	2007	S	IDL, REL, MACH, LOC, JS, DEMO	COE, MOC, SC, TI		Both ^f

Table 1 (continued)

Study	Year	Sample ^a	Independent variable			Dependent variable
			Individual ^b	Moral issue ^c	Organizational ^d	
Kish-Gephart et al. ^e	2008	NS	IDL, REL, LOC, JS, DEMO	COE, MOC, POE, PRX, SC, TI, GEN	EGO, BNV, PRC, CUL, CD EX, CD ENF	Both ^f
Kwok et al. ^e	2005	NS	JS, DEMO			Behavior
Laczo ^e	2002	S, NS	DEMO			Intention
Lane	1995	S	DEMO			Intention
Lasson & Bass ^e	1997	S	CMD, DEMO			Both ^f
Latham & Perlow	1996	NS	DEMO			Behavior
Leitsch ^e	2004	S		COE, MOC, POE, PRX, SC, TI, GEN		Intention
Liao et al. ^e	2004	NS	DEMO			Behavior
Libby & Agnello	2000	S	DEMO			Intention
Libby et al.	2005	S	DEMO			Intention
Luther ^e	2000	S	DEMO			Behavior
Magers	1996	NS			CD EX	Behavior
Malinowski & Berger	1996	S	DEMO			Intention
Marta et al.	2004	NS	DEMO			Intention
Marta et al. ^e	2001	NS	IDL, REL		CUL	Intention
Mastrangelo & Jolton ^e	2001	S	DEMO			Behavior
May & Pauli ^e	2002	S		COE, SC, GEN		Intention
McCabe et al. ^e	1996	NS			CD EX, CD ENF	Behavior
McMahon	2000	S	CMD, DEMO			Behavior
Menc ^e	2004	NS		MOC	EGO	Intention
Mount et al. ^e	2006	NS	JS			Behavior
Nill & Schibrowsky	2005	S	DEMO		CUL	Intention
Okpara	2003	NS			CD EX	Behavior
Paolillo & Vitell ^e	2002	NS	JS	GEN	CUL, CD ENF	Intention
Papadakis et al.	2005	NS	DEMO			Behavior
Pater & Van Gils	2003	NS			CD EX, CD ENF	Intention
Perlow & Latham ^e	1993	NS	LOC, DEMO			Behavior
Peterson ^e	2002a	NS	DEMO			Intention
Peterson ^e	2002b	NS			EGO, BNV, PRC, CD EX	Behavior
Peterson ^e	2004	NS	DEMO			Intention
Ponemon	1992	NS	CMD			Behavior
Radtke	2000	NS	DEMO			Intention
Ramaswami ^e	1996	NS	DEMO			Behavior
Richmond	2001	S	CMD, MACH, DEMO			Intention
Robin et al.	1996	S	CMD			Intention
Roman & Munuera ^e	2005	NS	JS, DEMO			Behavior
Ross & Robertson ^e	2003	NS	MACH, DEMO		CUL	Intention
Rottig & Koufteros ^e	2007	S			CD EX	Intention
Sackett et al. ^e	2006	NS	DEMO			Behavior
Schwepker	1999	NS	CMD			Intention
Seale et al.	1998	NS	DEMO			Behavior
Sheilley ^e	2004	NS		MOC, PRX, SC, TI		Intention
Sims	1999	S	DEMO			Intention
Sims ^e	2002	NS	JS			Intention
Singhapakdi	1999	NS	DEMO			Intention
Singhapakdi ^e	2004	S	IDL, REL, DEMO			Intention
Singhapakdi et al.	1996	NS		COE, MOC, POE, PRX, SC, TI		Intention
Smith & Rogers	2000	S	DEMO			Intention
Somers	2001	NS			CD EX	Behavior
Spector et al. ^e	2006	S	JS			Behavior
Stanga & Turpen	1991	S	DEMO			Intention
Street & Street ^e	2006	S	MACH, LOC, DEMO			Behavior
Tang & Chen ^e	2008	S	DEMO			Intention
Tang et al. ^e	2007	NS	MACH, DEMO			Intention
Trevino et al. ^e	1998	NS	JS		EGO, PRC, CUL	Behavior
Trevino & Youngblood ^e	1990	S	CMD, LOC			Behavior
Tsalikis & Ortiz-Buonafina	1990	S	DEMO			Intention
Tyson	1992	S, NS	DEMO			Intention
Uddin & Gillett	2002	NS	CMD			Intention

(table continues)

Table 1 (continued)

Study	Year	Sample ^a	Independent variable			Dependent variable
			Individual ^b	Moral issue ^c	Organizational ^d	
Valentine & Rittenburg ^e	2007	NS	DEMO			Intention
Vardi ^e	2001	NS			EGO, BNV, PRC	Behavior
Vitell et al. ^e	2003	NS	IDL, REL	GEN	CUL	Intention
Wahn ^e	1993	NS	DEMO			Behavior
Watley ^e	2002	NS	IDL, REL		EGO, BNV, PRC	Intention
Watley & May ^e	2004	NS		PRX		Intention
Werner et al.	1989	NS	DEMO			Behavior
Wimbush et al. ^e	1997	NS	DEMO		EGO, BNV, PRC	Intention
Wyld et al.	1994	S	CMD			Intention
Zagenczyk et al. ^e	2008	NS	MACH, DEMO			Behavior

Note. This table reflects the studies that remained after an outlier analysis was performed. Certain studies may include more than one independent data set.

^a S = student; NS = nonstudent. ^b CMD = cognitive moral development; DEMO = demographic variable(s); IDL = idealism; REL = relativism; MACH = Machiavellianism; LOC = locus of control; JS = job satisfaction. ^c MOC = magnitude of consequences; PRX = proximity; SC = social consensus; TI = temporal immediacy; COE = concentration of effect; POE = probability of effect; GEN = general moral intensity. ^d BNV = benevolent ethical climate; EGO = egoistic ethical climate; PRC = principled ethical climate; CUL = culture; CD EX = code existence; CD ENF = code enforcement. ^e Study reported at least one or more reliability estimates. ^f Intention and behavior were measured in separate independent samples.

istics. In addition, because no frameworks or formulations exist that make sharp predictions about relative or unique effects, we do not offer hypotheses about differential impacts.

Method

Compilation and Coding of Original Studies

We used many sources of original studies to acquire effect sizes for this paper. First, we searched online databases including ABI/Inform, ERIC, Nursing Abstracts, PsycINFO, PubMed, and Sociological Abstracts. Initially, we searched on the dependent construct using a variety of general keywords and phrases including *(un)ethical behavior, moral behavior, moral action, (un)ethical intention, moral intention, (un)ethical conduct, moral conduct, deviance, counterproductive work behavior, dysfunctional behavior, antisocial behavior, maladaptive behavior, and organizational misconduct*. We also searched by specific types of unethical behaviors, such as *theft, sabotage, piracy, cheating, lying, dishonesty, misrepresentation, aggression, kickback, bribery, and workplace violence*, and by variations of each independent variable chosen for inclusion in our study (e.g., *code of ethics, corporate code, code of conduct*). Second, we used Google Scholar, dissertation abstracts, e-mail requests sent through professional listservs, and elicitation at professional conferences to locate unpublished documents. Third, we obtained effect sizes from organizational questionnaire data collected for the 2000, 2003, and 2005 National Business Ethics Surveys (Ethics Resource Center, 2000, 2003, 2005). Fourth, we manually searched references from previously published review papers (e.g., Berry, Ones, & Sackett, 2007; Borkowski & Ugras, 1998; Ford & Richardson, 1994; Loe et al., 2000; O'Fallon & Butterfield, 2005; Treviño et al., 2006). Last, we included effects from data collected in our own recent research, which involved vignette-driven and survey data from separate samples of current business students and working alumni from a large, public, northeastern university.

Our search procedures produced over 6,000 "hits" for viable papers in various scholarly literatures. Upon further investigation, these were reduced to 200 empirical studies. However, we found that over one third of the studies that fit our inclusion parameters did not report effect sizes or that effect sizes could not be calculated from the information provided in the original article. We contacted and followed up with the authors of each study by e-mail and included a detailed description of the information that was needed; this process reduced the rate of unusable studies somewhat. Consequently, the final number of independent samples in this meta-analysis was 136. These samples comprised a total of 43,914 people aggregated across all relationships (note that this number excludes those studies classified as clear outliers; see below). Table 1 provides a listing of all included studies.

These relationships included only antecedent–unethical choice pairs for which at least $k = 3$ independent effect sizes were available. For example, few behavioral ethics researchers have examined the relationship between affect and unethical choice. Thus, affect was not included as an independent variable.

Our selection process ultimately led to specific elements of the antecedent framework argued in the hypotheses above and presented in Figure 1. Studies were classified by independent variable on the basis of the scale used to measure the proposed antecedent of interest. Most of these proposed antecedents in this meta-analysis were measured by one or two widely accepted scales, including CMD (measured by the P score of the Defining Issues Test; Rest, 1986; Social Reflection Measure; Gibbs, Basinger, & Fuller, 1992), moral philosophy (Ethics Position Questionnaire; Forsyth, 1980), Machiavellianism (Mach IV; Christie & Geis, 1970), locus of control (Levenson, 1981; Rotter, 1966), and ethical climate (Ethical Climate Questionnaire; Victor & Cullen, 1988). For the other antecedents, we used widely accepted definitions for job satisfaction (Weiss & Cropanzano, 1996), moral intensity (T. M. Jones, 1991), and ethical culture (Treviño, 1990; Treviño et al., 1998). For example, we used T. M. Jones's (1991) definitions for the six dimensions of moral intensity to

categorize studies by moral intensity. Likewise, ethical culture was classified on the basis of Treviño's conceptualization of ethical culture as a "multidimensional interplay among various 'formal' and 'informal' systems of behavioral control that are capable of promoting either ethical or unethical behavior" (Treviño et al., 1998, p. 452). Finally, code existence or code enforcement was captured if a study, respectively, measured the presence of a firm-level, publicly disseminated, statement of proper employee behavior or the extent to which employees perceived that individuals were being held responsible for code compliance.

To partially address issues of publication bias (or the "file drawer" problem), we categorized studies for source (as either published in peer-reviewed journals or unpublished manuscripts) and then examined possible determinants of variation in effect size. Studies were also categorized by type of sample (student or nonstudent) and research strategy (field study or lab experiment; McGrath, 1982). Student samples were made up of any combination of undergraduate or graduate students; and any sample that included both employees and students was coded as a "student" sample. For research strategy, studies were categorized as either a field study or a lab experiment on the basis of use of a real or contrived setting, respectively (McGrath, 1982). Interrater agreement on these categorizations was 100, 100, and 95%, respectively. As evident in Tables 5, 6, and 7 (see below), the vast majority of included effect sizes were based on in situ surveys of working adults (field study). This was especially true for investigations focusing on moral intensity or the environmental predictors.

Inclusion of Dependent Variables

Our dependent variables are unethical intention and unethical behavior (together comprising unethical choice). Retained studies were coded using the conceptual definitions of these variables. Intention is an expression of one's willingness or plan to engage in a course of action, and behavior is that action itself. Effect sizes were included only if the measurement of the construct itself was consistent with our definition. For example, studies were coded as intention if the participants were asked what they "would do" or the "likelihood" that they would engage in a specific action given a specific situation. However, studies were excluded if what was labeled as "intention" was instead measured by asking participants what they "should" do (a moral or normative judgment rather than a behavioral intention; Harrison, 1995). For behavior, studies were included if unethical behavior was measured with self-reports of personal behavior, social reports of observed coworker behavior (for organizational environment antecedents), and behavior based on archival records.

Agreement among independent raters on the intention versus behavior code for each effect size was 97%; disagreements on the remaining 3% were resolved through discussion between raters. In performing these codings, we discovered that there is virtually no overlap in included papers that examined intentions and behavior in the same study or for the same unethical actions (see Table 1). Therefore, the effects listed for intentions and the effects listed for behavior come from separate studies, and we could not provide a strong estimate of the intention-behavior connection or contrast those studies that might have used a two-wave, intention-behavior versus behavior-intention, design. This is a clear weakness in the literature that needs empirical attention.

We also limited original studies on the basis of their setting. In particular, because we are interested in unethical choices in the

workplace, we selected studies in which the dependent variable was collected in relation to a work organization context (either real or simulated). An organization can be defined as a formalized collective of individuals in pursuit of mutual, specific goals (Scott, 2003). This criterion meant that we did not include, for example, incidences of academic cheating of college students or software piracy outside of the work organization.

Finally, it is important to note that, despite some conceptual and empirical overlap, counterproductive work behavior (CWB) and workplace deviance are not synonymous with unethical behavior and our meta-analysis does not replicate those in the CWB area (Dalal, 2005; see Treviño et al., 2006). Whereas the definition of unethical behavior is rooted in societal norms, workplace deviance is based more on organizational norms that may or may not coincide with the broader strictures (Robinson & Bennett, 1995; Treviño et al., 2006). Therefore, our meta-analysis includes only those CWBs that are violations of both organizational *and* societal norms. We included distinct types of workplace deviance such as sabotage, theft, lying, and workplace aggression. Likewise, following Robinson and Bennett's (1995) typology, we included serious general forms of interpersonal deviance (i.e., "personal aggression") and organizational deviance (i.e., "property deviance") that are commonly considered unethical behaviors. In the instances where minor CWB was broken down into interpersonal-directed or organizational-directed actions (Bennett & Robinson, 2000), we included the latter only. This was done because the majority of the interpersonal-directed CWBs reflect less serious, political deviance that is based on organizational norms (e.g., showing favoritism or gossiping about coworkers). We did not include any general measures of CWB that spanned all four dimensions of Robinson and Bennett's (1995) typology.

Meta-Analytic Techniques

To comprehensively test our hypotheses, we used two meta-analytic procedures for creating and cumulating correlations: the fixed effects (Hunter & Schmidt, 2004) and random effects (Erez, Bloom, & Wells, 1996) models. Unlike the random effects model, the fixed effects model starts with an assumption of homogeneity among individual studies and the existence of one true population correlation. Although this is a widely used approach in management research, the broad variety of the populations, methods, and measures that make up our target domain of research suggests the existence of a set or family of correlations rather than a single correlation. The random effects model has the ability to explicitly account for (potential) between-study or between-population differences (Erez et al., 1996).

Fixed effects estimates. Following Hunter and Schmidt (2004), we converted reported statistics (such as chi-squares, *t* tests, or *p* values) into zero-order correlations from each study. We then used these effect sizes to calculate an uncorrected weighted average correlation, which is reported in our tables. Confidence intervals were constructed around the uncorrected weighted average correlations to see if the effect was likely under the null hypothesis of no relationship.

Effect sizes from individual studies were adjusted for measurement error in the independent and/or dependent variables to obtain corrected population estimates. If reliability estimates were unavailable from the original article, an average reliability was imputed from studies that did report the reliabilities of equivalent independent or dependent variables. Following current practice (e.g., Balkundi &

Harrison, 2006), calculated effect sizes were permitted to be used only once for each relationship we hypothesized. For example, some studies reported three effect sizes for the relationship between gender and three vignette measures of unethical behavior, all using the same sample. If we had included all three effect sizes, we would have overstated the total sample size, made the sampling error appear too small, and given that particular investigation too large a weight in determining the average correlation. Therefore, when more than one effect size in a relationship used the same sample, a single, composite correlation was calculated (Hunter & Schmidt, 2004).

To gauge the likelihood that there is more than one population of effects under examination, we calculated Q statistics for the heterogeneity of observed effect sizes (Hedges & Olkin, 1985). In the same vein, we calculated the percentage of that heterogeneity in effect sizes that might be attributable to artifacts (unreliability and sampling error). We also calculated sample-adjusted meta-analytic deviancy statistics from Arthur, Bennett, and Huffcutt (2001) to account for and remove the influence of outliers in the distribution of effect sizes in the primary studies. Outliers were identified and removed if they were $|3.48|$ standard errors away from the estimated population values, an indication that they were not part of the “family” of correlations under investigation.

Random effects estimates. The estimated ρ in the fixed effects model is the same (asymptotically) as the mean ρ (over all subpopulations) in the random effects model. However, the population-level variation around ρ is presumed larger in random effects models, essentially due to the idea that there is a set or family of ρ 's. Such models allow for explicit, formula-based estimates of the systematic variation in subpopulation correlations, referred to as τ^2 (Erez et al., 1996). Therefore, our tables show confidence intervals and estimates of this systematic variation for the random effects model, which were obtained by fitting hierarchical linear statistical equations using HLM 6 (Raudenbush, Bryk, Cheong, & Congdon, 2004). We used the same models to test the impact of methodological (source, sample, and research strategy) and substantive moderators (intention vs. behavior as criterion).

Results

Individual Characteristics and Unethical Choices: Hypotheses 1–9

Table 2 presents our meta-analytic findings for the set of individual (primarily dispositional) characteristics proposed in Hypotheses 1–9. Hypothesis 1 was supported, as the confidence interval around the meta-analytic effect does not cover zero. CMD was negatively related to unethical choices, with an average corrected correlation of $\rho = -.164$ (k samples = 22, n persons = 3,109).

In Hypothesis 2, we predicted that holding an idealistic moral philosophy would be negatively related to unethical choices. This hypothesis was supported ($\rho = -.209$, $k = 10$, $n = 2,619$). Individuals with an internal, accessible belief prohibiting harming others were less likely to form unethical choices. In addition, consistent with our prediction for Hypothesis 3, a relativistic moral philosophy was positively related to unethical choice ($\rho = .197$, $k = 12$, $n = 2,924$), suggesting that a cognizant belief in flexible moral strictures (i.e., high relativism) enhances the likelihood of unethical conduct.

We proposed in Hypothesis 4 that Machiavellianism (Christie & Geis, 1970) would positively influence unethical choices. In line with that proposition, the average corrected correlation was $\rho = .267$ ($k = 11$, $n = 2,290$). Consistent with Hypothesis 5, external locus of control—those who believe the environment primarily determines their experiences—was also positively related to unethical choices ($\rho = .134$, $k = 11$, $n = 2,683$). Likewise, Hypothesis 6 was supported. Higher job satisfaction was related to a lower likelihood of unethical choices ($\rho = -.242$, $k = 20$, $n = 3,913$).

We also tested relationships involving three demographic variables. In Hypothesis 7, we expected a greater frequency of unethical choices for men than for women. Our expectation was supported but with a weak correlation ($\rho = .098$, $k = 60$, $n = 21,927$). Hypothesis 8 was also supported: Age was negatively related to unethical choices but again weakly so ($\rho = -.088$, $k = 35$, $n = 15,939$). Last, the evidence did not support Hypothesis 9. We did not find a reliable inverse link between education level and unethical choices ($\rho = .019$, $k = 22$, $n = 12,626$); the confidence interval for this relationship included zero.

Moral Issue Characteristics and Unethical Choices: Hypotheses 10a–10g

As described above, moral intensity (T. M. Jones, 1991) consists of six distinct dimensions. The results presented in Table 3 support Hypotheses 10a through 10f regarding these dimensions as components of moral intensity. Concentration of effect ($\rho = -.338$, $k = 6$, $n = 1,495$), magnitude of consequences ($\rho = -.362$, $k = 10$, $n = 2,444$), probability of effect ($\rho = -.419$, $k = 4$, $n = 1,151$), proximity ($\rho = -.225$, $k = 7$, $n = 1,930$), social consensus ($\rho = -.338$, $k = 8$, $n = 1,960$), and temporal immediacy ($\rho = -.306$, $k = 7$, $n = 1,771$) are all moderately and negatively linked to unethical choice. It is of interest, following T. M. Jones's (1991) theory (and our Hypothesis 10g), that a general or aggregate configuration of moral intensity has an extremely strong link to unethical choice ($\rho = -.746$, $k = 5$, $n = 1,341$).

Organizational Environment Characteristics and Unethical Choices: Hypotheses 11–16

The last set of main effect predictions involved elements of the workplace environment. We predicted relationships between unethical choice and each of the three types of ethical climate as well as between unethical choice and ethical culture. Hypothesis 11 forwarded that strength of an egoistic climate would increase the likelihood of unethical choices. The results in Table 4 support this hypothesis ($\rho = .121$, $k = 12$, $n = 2,662$), but the effect is somewhat weak. Overall, a climate that emphasizes self-interest slightly fosters the incidence of unethical behavior in the workplace. Hypotheses 12–13 predicted inverse relationships of the strength of benevolent and principled ethical climates with unethical choice. Consistent with these predictions, moderate, negative correlations were observed ($\rho = -.272$, $k = 9$, $n = 2,206$; $\rho = -.299$, $k = 10$, $n = 2,295$; respectively). In Hypothesis 14, we predicted that a stronger ethical culture would be inversely related to fewer unethical choices. This idea was affirmed, with a robust, negative correlation ($\rho = -.329$, $k = 12$, $n = 2,969$).

Our final two propositions about direct effects dealt with the proposed impacts of the existence and enforcement of organizational

Table 2
Meta-Analytic Estimates of the Effect of Individual Influences on Unethical Choice: Hypotheses 1–9

Individual influences	<i>k</i>	<i>N</i>	Mean <i>r</i>	Var. <i>r</i>	95% CI (fixed effects)	Est. ρ	Var. ρ	95% CI (random effects)	Est. ρ (random effects)	<i>T</i> ²	<i>Q</i> ^b	File drawer
Cognitive moral development (Hypothesis 1)	22	3,109	-.133	.014	[-.183, -.083]	-.164	.012	[-.321, -.137]	-.230	.031	68.68*	60
Unethical intention	12	1,837	-.137	.016	[-.334, -.066]	-.173	.016					
Unethical behavior	10	1,272	-.127	.011	[-.193, -.061]	-.152	.006					
Moral philosophy: Idealism (Hypothesis 2)	10	2,619	-.176	.010	[-.238, -.114]	-.209	.008	[-.237, -.083]	-.162	.013	37.90*	14
Unethical intention	10	2,619	-.176	.010	[-.238, -.114]	-.209	.008					
Unethical behavior ^a												
Moral philosophy: Relativism (Hypothesis 3)	12	2,924	.168	.003	[.135, .200]	.197	.000	[.163, .248]	.209	.003	19.31*	29
Unethical intention	12	2,924	.168	.003	[.135, .200]	.197	.000					
Unethical behavior ^a												
Machiavellianism (Hypothesis 4)	11	2,290	.219	.012	[.154, .284]	.267	.015	[.208, .394]	.314	.026	50.60*	41
Unethical intention	7	1,744	.222	.010	[.149, .296]	.272	.012					
Unethical behavior	4	546	.209	.020	[.071, .346]	.250	.033					
Locus of control (internal = 0; Hypothesis 5)	11	2,683	.112	.011	[.050, .174]	.134	.011	[.091, .276]	.188	.017	43.65*	23
Unethical intention	7	1,970	.072	.006	[.012, .131]	.085	.010					
Unethical behavior	4	713	.219	.008	[.132, .346]	.250	.033					
Job satisfaction ^c (Hypothesis 6)	20	3,913	-.209	.027	[-.281, -.138]	-.242	.029	[-.300, -.115]	-.212	.041	139.77*	48
Unethical intention	5	733	-.052	.019	[-.172, .069]	-.059	.016					
Unethical behavior	15	3,180	-.228	.021	[-.301, -.155]	-.278	.023					
Gender (females = 0, males = 1; Hypothesis 7)	60	21,927	.090	.008	[.067, .113]	.098	.007	[.077, .145]	.112	.012	210.54*	61
Unethical intention	43	16,564	.090	.007	[.066, .114]	.097	.005					
Unethical behavior	17	5,350	.087	.013	[.033, .141]	.096	.012					
Age (Hypothesis 8)	35	15,939	-.081	.006	[-.108, -.054]	-.088	.005	[-.146, -.057]	-.102	.011	134.71*	25
Unethical intention	18	10,905	-.075	.004	[-.105, -.044]	-.080	.003					
Unethical behavior	17	5,034	-.095	.011	[-.144, -.045]	-.108	.009					
Education level (Hypothesis 9)	22	12,626	.017	.004	[-.009, .042]	.019	.002	[-.049, .022]	-.014	.004	56.35*	—
Unethical intention	15	10,005	.021	.003	[-.008, .050]	.024	.002					
Unethical behavior	7	2,621	-.002	.004	[-.050, .047]	-.001	.002					

Note. CI = confidence interval.

^a Empty cells represent relationships wherein less than two studies met the inclusion requirements. ^b Chi-square tests from the random effects analysis were larger but gave the same indication of between-study variance as the *Q* statistic. ^c Although job satisfaction has dispositional components, we are not conceptualizing it as being solely a dispositional variable; it is an individual rather than situational or organizational attribute, so we have included it in the current table for ease of presentation.

codes of conduct. As presented in Table 4, Hypothesis 15 was not confirmed. The existence of a code of conduct had a trivial correlation with unethical choice ($\rho = -.038, k = 19, n = 10,414$); and its confidence interval included zero. On the other hand, consistent with Hypothesis 16, a strong, negative link was found between code enforcement and unethical choice ($\rho = -.479, k = 7, n = 6,092$).

Moderator Analyses

Design differences. After examining the direct effects of each of the determinants on unethical choice, we separated the effects in the original studies by their use of different samples and methods, as well as their use of intention or behavior as a criterion (see the latter results in Tables 2–4). As described above, we coded for three types of methodological moderators including publication

source (published vs. unpublished), sample type (student vs. non-student), and research strategy (field study vs. lab experiment). To examine the potential impact of these methodological moderators, we first separated the effect size by the moderator for each determinant–unethical choice pair (Hunter & Schmidt, 2004). In the cases where fewer than two independent variables fit a particular moderator category, no results could be calculated. This occurred, for example, with moral philosophy and the organizational variables that almost exclusively utilized the field survey methodology.

The results (see Tables 5, 6, and 7) revealed no clear systematic pattern across the variables. Moving beyond pairwise observation to determine potential systematic unique effects of these moderators, we next conducted an analysis using weighted regression (Erez et al., 1996; Hedges & Olkin, 1985; Steel & Kammeyer-

Table 3
Meta-Analytic Estimates of the Effect of Moral Issue Influences on Unethical Choice: Hypotheses 10a–10g

Moral issue influence	<i>k</i>	<i>N</i>	Mean <i>r</i>	Var. <i>r</i>	95% CI (fixed effects)	Est. ρ	Var. ρ	95% CI (random effects)	Est. ρ (random effects)	<i>T</i> ²	<i>Q</i> ^b	File drawer
Concentration of effect	6	1,495	-.277	.022	[-.396, -.159]	-.338	.029	[-.503, -.120]	-.337	.067	50.91*	24
Unethical intention	6	1,495	-.277	.022	[-.396, -.159]	-.338	.029					
Unethical behavior ^a												
Magnitude of consequences	10	2,444	-.325	.016	[-.403, -.247]	-.362	.017	[-.489, -.239]	-.369	.047	53.45*	52
Unethical intention	10	2,444	-.325	.016	[-.403, -.247]	-.362	.017					
Unethical behavior ^a												
Probability of effect	4	1,151	-.378	.008	[-.465, -.291]	-.419	.006	[-.577, -.323]	-.451	.023	11.08*	29
Unethical intention	4	1,151	-.378	.008	[-.465, -.291]	-.419	.006					
Unethical behavior ^a												
Proximity	7	1,930	-.202	.012	[-.284, -.119]	-.225	.013	[-.374, -.128]	-.251	.026	33.62*	24
Unethical intention	7	1,930	-.202	.012	[-.284, -.119]	-.225	.013					
Unethical behavior ^a												
Social consensus	8	1,960	-.290	.011	[-.361, -.219]	-.338	.013	[-.468, -.250]	-.352	.027	33.04*	40
Unethical intention	8	1,960	-.290	.011	[-.361, -.219]	-.338	.013					
Unethical behavior ^a												
Temporal immediacy	7	1,771	-.274	.017	[-.370, -.179]	-.306	.020	[-.428, -.141]	-.291	.046	41.53*	30
Unethical intention	7	1,771	-.274	.017	[-.370, -.179]	-.306	.020					
Unethical behavior ^a												
General moral intensity	5	1,341	-.610	.013	[-.708, -.511]	-.746	.025	[-.847, -.504]	-.681	.151	35.87*	50
Unethical intention	5	1,341	-.610	.013	[-.708, -.511]	-.746	.025					
Unethical behavior ^a												

Note. CI = confidence interval.

^a Empty cells represent relationships wherein fewer than two studies met the inclusion requirements. ^b Chi-square tests from the random effects analysis were larger but gave the same indication of between-study variation as did the *Q* statistic.

Mueller, 2002). Each uncorrected correlation was transformed into a Fisher *z*, and the standard error was used as the weighting factor in a random effects framework (Erez et al., 1996; LePine, Erez, & Johnson, 2002), in which we regressed the transformed effect sizes onto all three methodological moderators simultaneously. With 46 possibilities for significant determinants of the variation in effect sizes, these design details were found to be important in only five inconsistent cases, which is close to the nominal alpha level of 5%. Hence, there was no compelling evidence that samples and methods were creating variation in effect sizes for influences on unethical choice.

Comparative strength of effects on intention and behavior.

The substantive moderator we thought might be important deals with the potential differences in effects on stated intentions to engage in unethical behavior versus (reports of) those behaviors themselves. Hence, when possible, correlation strengths were compared for the same antecedent's effect on each of these two forms of unethical choice. The two moral philosophies (idealism, relativism) and the dimensions of moral intensity could not be included in this intention versus behavior analysis due to the lack of studies that measured behavior. For the remaining variables, our analysis revealed that the correlations with intention and behavior were consistently in the same direction. This suggested that using intention as a proxy for behavior is not likely to influence the direction of correlations. Moreover, the results showed that many of the variables correlated more highly with behavior than with intention (refer to Tables 2–4). For example, of the individual differences, both locus of control ($\rho_I = .085$, $\rho_B = .250$) and job satisfaction ($\rho_I = -.059$, $\rho_B = -.278$) followed this pattern. Similarly, with the exception of code existence, nearly all of the organizational determinants

correlated more highly with behavior than with intention. This includes egoistic climate ($\rho_I = .083$, $\rho_B = .221$), benevolent climate ($\rho_I = -.226$, $\rho_B = -.403$), principled climate ($\rho_I = -.188$, $\rho_B = -.517$), ethical culture ($\rho_I = -.138$, $\rho_B = -.484$), and code enforcement ($\rho_I = .085$, $\rho_B = .250$).

To determine whether these differences between intention and behavior were significant, we conducted the kind of moderator analysis described above, using weighted regression in an HLM framework. This analysis revealed that the difference between intention and behavior was significant ($p < .05$) for half (5 of 10) of the individual and organizational variables. Furthermore, whenever this difference was significant, the correlation with behavior was always greater than with intention. Implications of this pattern are drawn out in the Discussion.

Unique Effects of Predictors

A final type of analysis was afforded by our meta-analytic cumulation, one that allows greater insight into the unique, simultaneous contributions of the proposed antecedents of unethical choices. Viswesvaran and Ones (1995) forwarded the use of meta-analytically derived matrices for structural equation models, and that type of modeling has been reported many times in applied psychology (e.g., Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005). Following this approach, we were able to construct matrices of meta-analytic correlations among all of the proposed antecedents but only within each of their sets of proposed determinants: nine individual characteristics (45 interpredictor correlations), six moral issue dimensions (30 interpredictor correlations), and six features of organizational environments (30 interpredictor

Table 4
Meta-Analytic Estimates of the Effect of Organizational Environment Influences on Unethical Choice: Hypotheses 11–16

Organizational environment influence	<i>k</i>	<i>N</i>	Mean <i>r</i>	Var. <i>r</i>	95% CI (fixed effects)	Est. ρ	Var. ρ	95% CI (random effects)	Est. ρ (random effects)	<i>T</i> ²	<i>Q</i> ^b	File drawer
Ethical climate: Egoistic (Hypothesis 11)	12	2,662	.100	.013	[.035, .164]	.121	.012	[.043, .231]	.139	.020	49.51*	16
Unethical intention	7	1,887	.069	.007	[.008, .130]	.083	.004					
Unethical behavior	5	775	.174	.020	[.049, .300]	.221	.018					
Ethical climate: Benevolent (Hypothesis 12)	9	2,206	-.235	.008	[-.295, -.175]	-.272	.008	[-.375, -.197]	-.290	.016	26.48*	34
Unethical intention	5	1,484	-.197	.005	[-.261, -.132]	-.226	.004					
Unethical behavior	4	542	-.340	.002	[-.381, -.298]	-.403	.000					
Ethical climate: Principled (Hypothesis 13)	10	2,295	-.251	.014	[-.323, -.178]	-.299	.015	[-.428, -.208]	-.314	.031	45.37*	42
Unethical intention	5	1,520	-.192	.010	[-.280, -.104]	-.228	.011					
Unethical behavior	5	775	-.365	.000	[-.384, -.347]	-.440	.000					
Culture (Hypothesis 14)	12	2,969	-.270	.031	[-.369, -.170]	-.329	.034	[-.537, -.243]	-.424	.089	115.59*	66
Unethical intention	6	1,753	-.153	.006	[-.213, -.093]	-.188	.003					
Unethical behavior	6	1,216	-.438	.019	[-.549, -.327]	-.517	.015					
Code of conduct: Existence (Hypothesis 15)	19	10,414	-.031	.007	[-.069, .008]	-.038	.007	[-.123, -.018]	-.071	.010	94.18*	—
Unethical intention	6	1,517	-.022	.010	[-.102, .058]	-.024	.007					
Unethical behavior	13	8,897	-.032	.007	[-.077, .013]	-.041	.007					
Code of conduct: Enforcement (Hypothesis 16)	7	6,092	-.334	.003	[-.378, -.290]	-.459	.010	[-.494, -.269]	-.409	.029	47.94*	32
Unethical intention	2	288	-.124	.002	[-.189, -.058]	-.138	.000					
Unethical behavior	5	5,804	-.344	.001	[-.375, -.313]	-.484	.002					

Note. CI = confidence interval.

^a Empty cells represent relationships wherein less than two studies met the inclusion requirements. ^b Chi-square tests from the random effects analysis were larger but gave the same indication of between-study variation as did the *Q* statistic.

correlations).³ Very few original studies have examined variables in more than one of these sets at the same time (see Table 1). This led us to create five meta-analytic structural models. Respectively, each one gauged the simultaneous—and therefore unique— influences of (a) individual characteristics on unethical intention, (b) individual characteristics on unethical behavior, (c) moral issue dimensions on unethical intention, (d) organizational environment features on unethical intention, and (e) organizational environment features on unethical behavior. Results of these tests are shown in the path models in Figure 2. Sample sizes for these models were the harmonic mean of the sample sizes across all cells of the meta-analytic correlation matrix.

Individual characteristics. Referring to Panel A of Figure 2, we see that all of the individual-level psychological predictors, but none of the demographic variables, made a unique contribution to unethical intention or unethical behavior. All of those contributions were in the direction consistent with our original hypotheses. That is, once the psychological variables are accounted for, the demographic variables are inconsequential. For unethical intention, CMD, Machiavellianism, and moral philosophy, but not external locus of control, were simultaneously important predictors. For unethical behavior in particular, all of the psychological variables were significant contributors (except for moral philosophies because too few original studies examined their relationship with unethical behavior and thus, they could not be included in the model).

Notably, only two correlations of the 45 between *any* of the individual predictors in our meta-analytic matrix of correlations were $\rho > .140$: Machiavellianism with external locus of control ($\rho = .43$),

and Machiavellianism with relativism ($\rho = .45$). This suggests that, despite some conceptual overlap, the individual constructs are largely distinct. Furthermore, the demographic variables had little overlap with the psychological predictors ($\rho < .15$) and should not be regarded as surrogates for them in future research.

Moral issue dimensions. When entered simultaneously, four of the six moral intensity dimensions significantly helped explain unethical intention (see Figure 2, Panel B). Magnitude of consequences and temporal immediacy were nonsignificant, and at first blush it might be possible to conclude they are not important. However, the intercorrelations among these and two other moral issue dimensions (probability of effect and concentration of effect) ranged from $\rho = .57$ to $\rho = .82$. Such an intercorrelation pattern suggests the potential for one underlying “expected valence of harm,” or EV factor. We explore some of the possibilities for this tight cluster of dimensions in the Discussion. In contrast, social consensus and proximity were correlated under $\rho = .40$ with all the other dimensions, perhaps undergirding their *unique* impacts.

Organizational environment features. For the predicted antecedents in an individual’s workplace environment, five of the six variables had simultaneous and significant unique impacts on either unethical intention or unethical behavior (see Figure 2, Panel C). Strength of benevolent climate, principled climate, and code enforcement explained significant variance in unethical intention.

³ Matrices of meta-analytic correlations among the predictors are available from the authors upon request.

Table 5
Methodological Moderators: Individual Characteristics

Individual characteristic	<i>k</i>	<i>N</i>	Mean <i>r</i>	Var. <i>r</i>	95% CI	Est. ρ	Var. ρ
Cognitive moral development							
Published	14	1,420	-.199	.014	[-.359, -.137]	-.247	.008
Unpublished	8	1,689	-.077	.007	[-.137, -.018]	-.093	.005
Student	11	1,886	-.087	.008	[-.140, -.034]	-.106	.005
Nonstudent	11	1,223	-.204	.015	[-.277, -.131]	-.246	.011
Field study	15	2,249	-.135	.015	[-.197, -.074]	-.169	.014
Lab experiment	7	860	-.128	.013	[-.211, -.044]	-.152	.007
Moral philosophy: Idealism							
Published	6	1,970	-.201	.006	[-.321, -.139]	-.229	.005
Unpublished	4	649	-.101	.015	[-.219, .018]	-.125	.010
Student	3	358	-.082	.005	[-.158, -.006]	-.101	-.006
Nonstudent	7	2,261	-.191	.009	[-.262, -.120]	-.219	.009
Field study	10	2,619	-.176	.010	[-.238, -.114]	-.209	.008
Lab experiment ^a							
Moral philosophy: Relativism							
Published	6	1,970	.171	.002	[.200, .204]	.200	.000
Unpublished	6	954	.159	.007	[.093, .225]	.189	.002
Student	5	663	.192	.004	[.136, .249]	.239	.000
Nonstudent	7	2,261	.160	.003	[.120, .200]	.185	.001
Field study	12	2,924	.168	.003	[.135, .200]	.197	.000
Lab experiment ^a							
Machiavellianism							
Published	6	1,385	.167	.004	[.187, .217]	.202	.000
Unpublished	5	905	.299	.014	[.194, .404]	.377	.021
Student	8	1,280	.295	.007	[.236, .355]	.376	.005
Nonstudent	3	1,010	.122	.002	[.076, .168]	.146	.000
Field study	9	2,051	.221	.012	[.148, .293]	.269	.016
Lab experiment	2	239	.205	.010	[.064, .345]	.249	.004
Locus of control (internal = 0)							
Published	8	2,137	.109	.012	[-.019, .186]	.129	.013
Unpublished	3	546	.168	.000	[.148, .189]	.215	.000
Student	7	1,231	.166	.010	[.092, .240]	.221	.006
Nonstudent	4	1,452	.083	.008	[-.004, .170]	.094	.007
Field study	9	2,434	.101	.007	[.048, .153]	.120	.005
Lab experiment	2	249	.320	.006	[.213, .428]	.396	.000
Job satisfaction ^b							
Published	15	3,259	-.237	.022	[-.471, -.162]	-.275	.023
Unpublished	5	654	-.069	.027	[-.212, .073]	-.081	.025
Student	4	491	-.212	.028	[-.377, -.047]	-.247	.025
Nonstudent	16	3,455	-.173	.022	[-.246, -.099]	-.268	.031
Field study	20	3,913	-.209	.027	[-.281, -.138]	-.242	.029
Lab experiment ^a							
Gender (females = 0, males = 1)							
Published	48	13,398	.090	.012	[-.031, .120]	.098	.010
Unpublished	12	8,529	.090	.003	[.060, .121]	.098	.002
Student	32	7,971	.124	.012	[.085, .163]	.136	.010
Nonstudent	28	13,956	.071	.005	[.045, .096]	.076	.003
Field study	57	21,272	.088	.008	[.066, .111]	.096	.006
Lab experiment	3	655	.144	.017	[-.004, .292]	.152	.014
Age							
Published	27	8,013	-.097	.009	[-.212, -.062]	-.108	.007
Unpublished	8	7,926	-.065	.004	[-.108, -.022]	-.070	.003
Student	13	3,469	-.084	.014	[-.147, -.020]	-.094	.011
Nonstudent	22	12,470	-.080	.005	[-.108, -.052]	-.087	.004
Field study	34	15,484	-.082	.007	[-.109, -.054]	-.089	.006
Lab experiment	1	455	-.050				
Education level							
Published	17	5,580	.004	.006	[-.068, .040]	.005	.003
Unpublished	5	7,046	.026	.002	[-.010, .063]	.029	.001
Student	9	2,518	-.015	.005	[-.059, .030]	-.014	.001
Nonstudent	13	10,108	.024	.003	[-.006, .054]	.027	.002
Field study	22	12,626	.017	.004	[-.009, .042]	.019	.002
Lab experiment ^a							

Note. CI = confidence interval.

^a Empty cells represent relationships wherein no studies were available. ^b Although job satisfaction has dispositional components, we are not conceptualizing it as being solely a dispositional variable; it is an individual rather than situational or organizational attribute, so we have included it in the current table for ease of presentation.

Table 6
Methodological Moderators: Moral Issue Characteristics

Moral issue characteristic	<i>k</i>	<i>N</i>	Mean <i>r</i>	Var. <i>r</i>	95% CI	Est. ρ	Var. ρ
Concentration of effect							
Published	4	1,159	-.285	.007	[-.452, -.205]	-.346	.007
Unpublished	2	336	-.241	.067	[-.600, .118]	-.298	.095
Student	4	896	-.189	.014	[-.305, -.073]	-.230	.015
Nonstudent	2	599	-.403	.003	[-.474, -.333]	-.485	.000
Magnitude of consequences							
Published	6	1,866	-.338	.007	[-.472, -.270]	-.366	.007
Unpublished	4	578	-.279	.039	[-.473, -.086]	-.286	.045
Student	4	975	-.321	.012	[-.427, -.215]	-.338	.011
Nonstudent	6	1,469	-.326	.018	[-.432, -.219]	-.353	.022
Probability of effect							
Published	3	970	-.343	.002	[-.381, -.294]	-.381	.000
Unpublished	1	181	-.534	—	—	—	—
Student	2	552	-.325	.003	[-.396, -.255]	-.360	.000
Nonstudent	2	599	-.418	.006	[-.524, -.312]	-.466	.004
Proximity							
Published	5	1,603	-.182	.006	[-.295, -.113]	-.206	.005
Unpublished	2	327	-.280	.026	[-.505, -.055]	-.297	.033
Student	2	552	-.241	.000	[-.259, -.224]	-.281	.000
Nonstudent	5	1,378	-.182	.014	[-.286, -.077]	-.200	.015
Social consensus							
Published	5	1,478	-.278	.006	[-.431, -.209]	-.325	.007
Unpublished	3	482	-.317	.019	[-.474, -.161]	-.367	.025
Student	4	896	-.309	.002	[-.352, -.265]	-.374	.000
Nonstudent	4	1,064	-.270	.015	[-.391, -.148]	-.305	.021
Temporal immediacy							
Published	4	1,289	-.247	.007	[-.388, -.164]	-.278	.007
Unpublished	3	482	-.334	.030	[-.530, -.137]	-.366	.038
Student	3	707	-.304	.006	[-.390, -.218]	-.350	.004
Nonstudent	4	1,064	-.248	.020	[-.386, -.111]	-.273	.024
General moral intensity							
Published	4	1,160	-.605	.014	[-.723, -.487]	-.744	.030
Unpublished	1	181	-.639	—	—	—	—
Student	2	299	-.403	.001	[-.452, -.355]	-.472	.000
Nonstudent	3	1,042	-.669	.000	[-.684, -.653]	-.837	.002

Note. CI = confidence interval. All studies that measured moral intensity used a field study research strategy. Therefore, no moderator for strategy was reported in this table.

The same variables, along with strength of egoistic climate and code existence, remained significant predictors in the unethical behavior model. However, despite its strong independent effect, ethical culture did not account for unique variance in either unethical intention or unethical behavior beyond these other predictors. This result likely stemmed from the high correlation of ethical culture with several other predictors, including egoistic climate ($\rho = -.51$), benevolent climate ($\rho = .69$), principled climate ($\rho = .72$), and code enforcement ($\rho = .60$). None of the other predictors were correlated more than $\rho = |.45|$ with each other, except benevolent and principled climates ($\rho = .61$).

Discussion

Summary

By cumulating knowledge across diverse literature sources, this meta-analysis provides a comprehensive quantitative summary of the individual (bad apples), moral issue (bad cases), and organizational environment (bad barrels) antecedents of unethical choices in the

workplace. Our empirical synopsis and examination not only helps shed light on 30 years of research that has been described as “decidedly mixed” in many areas (Tenbrunsel & Smith-Crowe, 2008, p. 579) but also provides a lens into potential future research opportunities. First, our findings provide support for several long-standing theories (e.g., T. M. Jones, 1991; Treviño, 1986; Victor & Cullen, 1987) as well as a definitive direction for several relationships plagued by inconsistent prior findings. Second, our findings reveal a high degree of underlying complexity in unethical choices. That is, such choices cannot be explained by one or two dominant antecedents. Rather, they are multidetermined, with substrates spread widely, even within the distinct realms of individual, moral issue, and organizational environment characteristics. In that regard, it is time for behavioral ethics researchers to empirically integrate these multiple sets of predictors (studying bad apples, cases, and barrels simultaneously) to fully understand this complicated phenomenon. Third, when relationships with intention and behavior are investigated separately, the results ostensibly call into question what has been the traditional, deliberative approach to ethical decision making (e.g., Rest, 1986) and instead suggest what might be a more “impulsive” formulation.

Table 7
 Methodological Moderators: Organizational Environment Characteristics

Organizational environment characteristic	<i>k</i>	<i>N</i>	Mean <i>r</i>	Var. <i>r</i>	95% CI	Est. ρ	Var. ρ
Ethical climate: Egoistic							
Published	8	1,867	.107	.012	[.008, .181]	.133	.010
Unpublished	4	795	.082	.016	[-.043, .208]	.095	.016
Student ^a							
Nonstudent	12	2,662	.100	.013	[.035, .164]	.121	.012
Field study	12	2,662	.100	.013	[.035, .164]	.121	.012
Lab experiment ^a							
Ethical climate: Benevolent							
Published	6	1,321	-.218	.010	[-.380, -.139]	-.253	.010
Unpublished	3	705	-.267	.005	[-.344, -.191]	-.306	.002
Student	1	80	-.336				
Nonstudent	8	1,946	-.231	.008	[-.294, -.167]	-.268	.008
Field study	8	1,946	-.231	.008	[-.294, -.167]	-.268	.008
Lab experiment	1	80	-.336				
Ethical climate: Principled							
Published	7	1,590	-.248	.015	[-.474, -.156]	-.297	.019
Unpublished	3	705	-.256	.009	[-.366, -.146]	-.303	.007
Student ^a							
Nonstudent	10	2,295	-.251	.014	[-.323, -.178]	-.299	.015
Field study	10	2,295	-.251	.014	[-.323, -.178]	-.299	.015
Lab experiment ^a							
Ethical culture							
Published	10	2,580	-.262	.032	[-.570, -.150]	-.323	.037
Unpublished	2	389	-.321	.018	[-.506, -.135]	-.367	.015
Student	2	339	-.392	.049	[-.700, -.085]	-.457	.065
Nonstudent	10	2,630	-.254	.026	[-.355, -.153]	-.312	.028
Field study	12	2,969	-.270	.031	[-.369, -.170]	-.329	.034
Lab experiment ^a							
Code of conduct: Existence							
Published	15	9,024	-.030	.006	[-.138, .011]	-.038	.006
Unpublished	4	1,390	-.037	.013	[-.151, .076]	-.039	.013
Student	2	722	.034	.001	[-.008, .077]	.038	.000
Nonstudent	17	9,692	-.036	.007	[-.077, .005]	-.045	.007
Field study	19	10,414	-.031	.007	[-.069, .008]	-.038	.007
Lab experiment ^a							
Code of conduct: Enforcement							
Published	6	5,944	-.336	.003	[-.585, -.290]	-.467	.009
Unpublished	1	148	-.232				
Student ^a							
Nonstudent	7	6,092	-.334	.003	[-.378, -.290]	-.459	.010
Field study	7	6,092	-.334	.003	[-.378, -.290]	-.459	.010
Lab experiment ^a							

Note. CI = confidence interval.

^a Empty cells represent relationships wherein no studies were available.

Individual Characteristics: Who Are the Bad Apples?

Our results reveal that individuals who obey authority figures' unethical directives or act merely to avoid punishment (i.e., are lower in CMD; Kohlberg, 1969), who manipulate others to orchestrate their own personal gain (i.e., are Machiavellian), who fail to see the connection between their actions and outcomes (i.e., have an external locus of control), or who believe that ethical choices are driven by circumstance (i.e., hold a relativistic moral philosophy) are more likely to make unethical choices at work. These findings support several foundational theories within behavioral ethics (e.g., Forsyth, 1980; Treviño, 1986), including the notion that bad apples contribute to unethical behavior in organizations (Treviño & Youngblood, 1990).

Despite the prima facie similarity of these individual determinants, none of them serve as substitutes for the others; all are

implicated in mutually predicting unethical choices. Still, an interesting common theme among these dispositional determinants is the apparent importance of self-gain, self-preservation, or self-interest (Johns, 1999). For example, Machiavellians and those lower in CMD (who make more unethical choices) are "looking out for number one" and those high in internal locus of control (who make fewer unethical choices) are likely to have a greater concern about consequences for others. Some of the covariation of what might be self-interest across constructs may help to explain the moderate correlations ($p > .40$) between Machiavellianism and locus of control and between Machiavellianism and relativism. Furthermore, though job satisfaction is not a dispositional trait per se, its effects also suggest a self-focus. Those who have a negative assessment of their job may be more focused on their dissatisfaction or on retaliation for feeling badly than on the cost of their

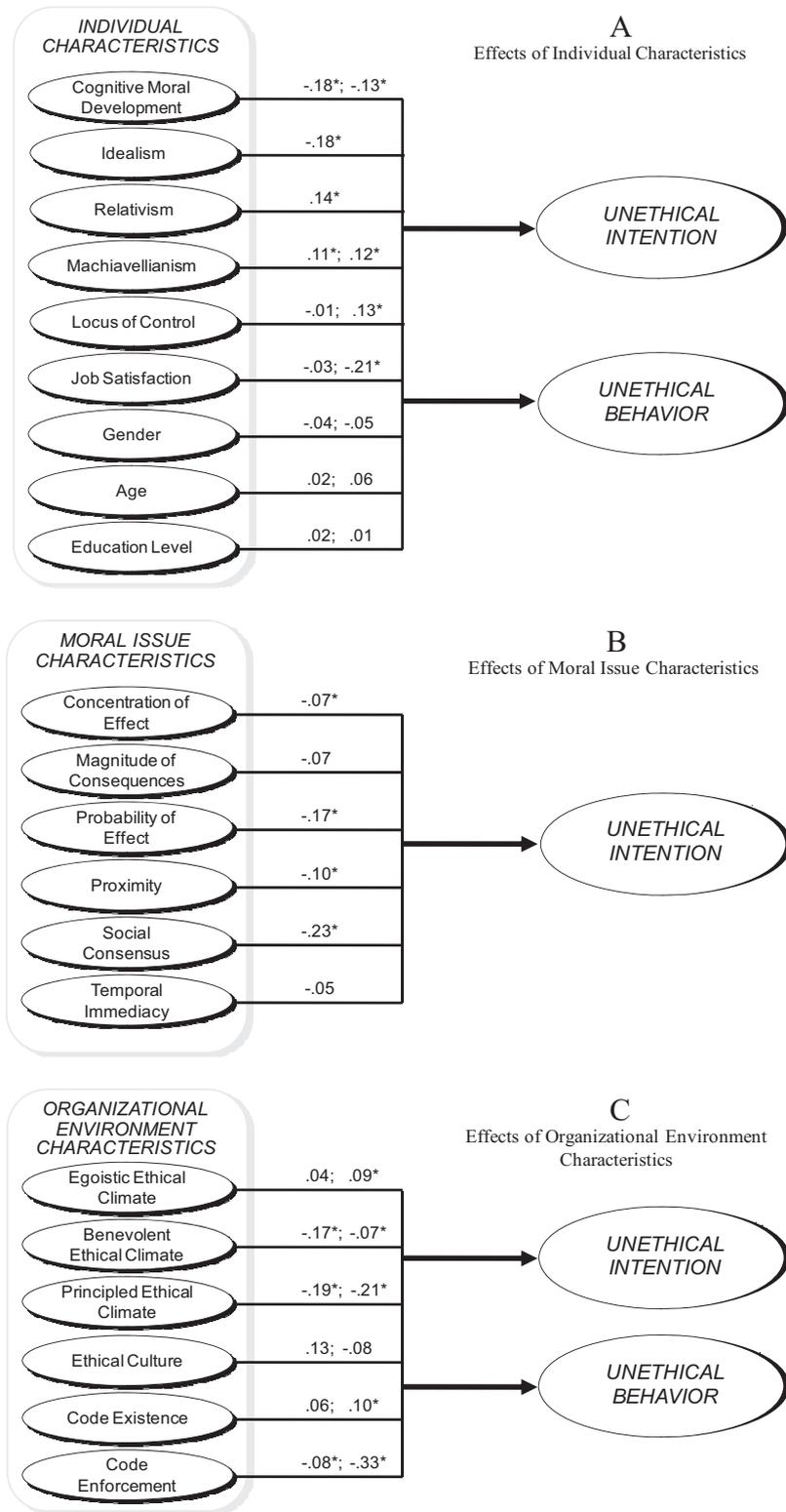


Figure 2. Simultaneous unique effects of proposed antecedents on unethical intention and behavior. First entry is effect on unethical intention; second entry (after semicolon) is effect on unethical behavior. * $p < .05$.

actions to the organization or to others within it. These findings provide an interesting avenue for future research: To what extent is self-interest the key driver behind bad apples at work? (See Cropanzano, Stein, & Goldman, 2007; Moore & Lowenstein, 2004.)

Although demographics are among the most frequently investigated groups of variables in behavioral ethics (see O'Fallon & Butterfield, 2005), our meta-analytic results suggest either weak or null relationships between age, gender, and education level and unethical choices. Indeed, when evaluated side by side in the same regression models with individual psychological (and generally dispositional) characteristics, demographics add nothing to the explanation of either unethical intention or unethical behavior. These results have several implications for the current thinking about identifying those likely to be bad apples via demographic profiles.

First, the findings counter theories that males and females differ markedly in how they puzzle through ethical dilemmas (e.g., Gilligan, 1977) or that social expectations lead to systematic, gender-specific responses (e.g., Eagly, 1987) to ethical dilemmas by actors in the workplace. Second, the findings do not support the idea that older individuals consistently behave more ethically than younger individuals because of their past experience dealing with ethical dilemmas (Tenbrunsel & Smith-Crowe, 2008). Third, the findings related to education challenge the common myth that work organizations can rely on educated adults to do the right thing without further ethical guidance (Treviño & Brown, 2004). They also suggest an important but barbed question: Is higher education abdicating its responsibility to advance the ethical development of students? This is especially unsettling for academics, given the well-documented, momentous, and continuing failures of ethical decision making in so many organizations, coupled with research demonstrating that moral reasoning can be advanced within individuals through carefully designed training (Thoma & Rest, 1986).

From a practical perspective, then, can organizations keep from picking bad apples? Our results suggest they can, but demographic strategies are not likely to be useful. Instead, by developing selection tests based on the individual differences included in this study, organizations may be able to avoid hiring new employees who are more likely to behave unethically at work. Indeed, to avoid ethics-related cues, locus of control (Rotter, 1966) may be an unobtrusive and fruitful measure as part of a selection battery. Another useful area for future research may be to map the overlaps of these individual differences with the constructs tapped by widely used integrity tests (Ones, Viswesvaran, & Schmidt, 1993). Can variations on integrity or conscientiousness (or other elements of the five-factor personality model) add to the explanation of unethical choice, or are the more narrow constructs we have studied likely to be the most proximal and potent inputs? Finally, given that integrity tests are most often used with lower level employees, are the individual differences studied here more useful with managerial employees or are they equally predictive across employee populations?

Moral Issue Characteristics: What Are the Bad Cases?

In terms of issues themselves, or the "case" parameters of the decisions that individuals are faced with making, high-intensity

moral issues are, according to T. M. Jones, "more likely to catch the attention of the moral decision maker and be recognized as having consequences for others" (1991, p. 381). Those consequences will also be more likely to increase one's effort in moral reasoning (Weber, 1990). We found, consistent with this line of thought, that when an ethical dilemma is perceived as a "good case" (in the positive end of the spectrum for any of the six separate moral intensity dimensions), an employee is less likely to form an unethical intention (i.e., the ethical alternative is more likely to be chosen). The opposite is true for choice situations that are "bad cases," wherein unethical alternatives are more easily chosen.

Our meta-analytic results for correlations among those dimensions revealed that four of the six (magnitude of consequences, concentration of effect, probability of effect, and temporal immediacy) were seen by study participants as being highly interrelated ($.57 < \rho < .82$), perhaps forming a cluster of what defines a good or bad case and leaving the other dimensions (social consensus, proximity) as relatively independent. Consistent with recent research (e.g., McMahon & Harvey, 2007), our results yield a tentative but certainly viable notion that T. M. Jones's (1991) moral intensity may comprise three, rather than six, dimensions.

Magnitude of consequences, concentration of effect, probability of effect, and temporal immediacy are all arguably associated with aspects of the potentially risky consequences to the victim. For example, probability of effect refers to the likelihood that harm will occur; temporal immediacy refers to the passage of time before that harm will occur; magnitude of consequences refers to the actual amount of harm that will occur; and concentration of effect refers to the relative amount of harm in relation to the number of victims potentially harmed. In contrast, social consensus and proximity are not directly related to the harm itself but to agreement or psychological similarity. Thus, it is not surprising that the four dimensions directly related to consequences to the victim are overlapping and likely form one dimension related to the amount of "expected harm" (McMahon & Harvey, 2006).

Although these findings are based on studies of unethical intention alone (as we were unable to locate any investigations that measured moral intensity and actual unethical behavior), they suggest that organizations may be able to reduce unethical behavior in the workplace by "sharpening the edges" of ethical dilemmas. That is, if means exist to highlight moral intensity features in organizational decision making (just as means exist to highlight financial features, such as information about financial risks and expected profits), unethical choices might be more frequently suppressed. For example, unethical behavior may be reduced if employees learn to associate potential unethical behavior with severe, well-defined harm (magnitude of consequences) to a familiar or recognizable victim similar to the actor (proximity). Likewise, organizations may be able to prevent unethical behavior by making behavioral norms (creating strong social consensus) more prominent and clearly defined. Future research should consider how and to what extent moral issues can be made salient to employees (e.g., via personal contact with potential victims; Grant et al., 2007) and whether doing so affects unethical choices.

Organizational Environment Characteristics: Where Are the Bad Barrels?

Our findings suggest that organizations create bad and good social environments (“barrels”) that can influence individual-level unethical choices. We found, in support of Victor and Cullen (1988), that firms promoting an “everyone for himself” atmosphere (egoistic climates) are more likely to encourage unethical choices. However, the reverse relationship is found where there is a climate that focuses employees’ attention on the well-being of multiple stakeholders, such as employees, customers, and the community (benevolent climate), or on following rules that protect the company and others (principled climate). Likewise, a strong ethical culture that clearly communicates the range of acceptable and unacceptable behavior (e.g., through leader role-modeling, rewards systems, and informal norms) is associated with fewer unethical decisions in the workplace (Treviño, 1990).

Our findings also revealed, however, that ethical culture is highly related to the three ethical climates ($1.501 < \rho < 1.721$) and to ethical code enforcement ($\rho = .60$). In addition, when considered as a predictor simultaneously with the ethical climate dimensions, ethical culture did not explain any unique variance in unethical intention or behavior. These findings suggest that future research into the relationship between the broad organizational environment and employee unethical choice will benefit from focusing on the three ethical climate dimensions. Further, our results suggest that organizations interested in gauging how employees perceive their broad ethical environments should assess the three climate dimensions. Given the statistical overlap between ethical culture and ethical climate, future research on ethical culture will need to demonstrate conceptually and empirically whether and how it can have a unique impact on unethical choice. It is possible that perceptions of ethical culture may be a source of employees’ broad ethical climate perceptions because the ethical culture measure taps perceptions of specific organizational systems and practices (e.g., leadership, reward systems) and their ethics-related messages. For example, performance management systems that reward individual bottom-line achievement (no matter how it is achieved) and that fail to discipline self-serving behavior are likely to give rise to perceptions of a highly egoistic climate. If so, measures that tap these specific organizational systems may provide managers with information about levers they can use for influencing perceptions of the ethical climate.

Codes of conduct have received much attention, but they have produced mixed results in the literature (O’Fallon & Butterfield, 2005). Our meta-analysis revealed that the mere existence of a code of conduct has no detectable impact on unethical choices, despite the considerable amount of statistical power that comes from doing a meta-analytic summary. One likely explanation is that codes of conduct have become so ubiquitous that they have lost their potency. They have become ground rather than figure. Another possibility is that codes are often little more than a facade. Enron’s code, for example, contained more than 60 pages of prescriptions, but the board explicitly voted to override the code when it approved Andrew Fastow’s (Enron’s CFO) financial malfeasance (Stevens, Steensma, Harrison, & Cochran, 2005). This does not mean, however, that codes of conduct are unnecessary in organizations. Rather, as our results revealed, a properly *enforced* code of conduct can have a powerful influence on unethical

choices (McCabe et al., 1996; Treviño, 1992b). Therefore, future research should move away from examining whether or not a code of conduct exists and focus instead on how codes can be effectively enforced to shape behavior.

Separating Intention and Behavior: Evidence of a Less Deliberative Approach?

As noted earlier, Rest’s (1986) four-stage model provides the backdrop for much of the behavioral ethics literature (see T. M. Jones, 1991; Loe et al., 2000; O’Fallon & Butterfield, 2005; Tenbrunsel & Smith-Crowe, 2008; Treviño et al., 2006). This model suggests, consistent with the well-supported theories of reasoned action and the theory of planned behavior (e.g., Ajzen, 1991; Fishbein & Ajzen, 1975), that intention precedes behavior in succession and should therefore be more strongly connected to similarly specific perceptions, beliefs, and attitudes (Harrison, Newman, & Roth, 2006). Furthermore, barring strong constraints or disruptions by the environment, or large time or measurement discrepancies between intention and behavior, the two should be robustly associated. Following these implicit assumptions, unethical intention has often been substituted for unethical behavior in behavioral ethics research (e.g., Borkowski & Ugras, 1998; Chang, 1998; Martin & Cullen, 2006; Whitley, 1998; Whitley et al., 1999; see O’Fallon & Butterfield, 2005; Weber, 1992; Weber & Gillespie, 1998). It remains unclear, however, to what extent this proxy logic is appropriate. Behavioral ethics investigations rarely include both intention and behavior in the same investigation. Our comprehensive search found only two studies that measured unethical intention and behavior within the same sample. This fact underscores a strong and immediate need to do so in future studies.

Although we did not posit formal a priori hypotheses about the difference in effect sizes involving intention and behavior, we set out to investigate the potential moderating effects of measuring unethical choice as intention versus behavior. Our results yielded important insights. First, all of the correlations with intention and behavior shared the same sign or direction of effect, suggesting initial support for the use of intention as a proxy for behavior. Second, despite the consistency in direction of effects, many antecedents were correlated more strongly with unethical behavior than with unethical intention. A subsequent moderator analysis using a random effects weighted regression (Erez et al., 1996; Hedges & Olkin, 1985) revealed significant differences ($p < .05$) between these intention and behavior correlations for five of the 10 antecedents that allowed a statistical comparison. In every case of demonstrably different results, the correlation with behavior was stronger than with intention. Given Rest’s (1986) model, these results were unexpected. The unidirectional flow of the four-stage model (from awareness to judgment to intention to behavior) suggests that antecedent effects should be stronger with intention than with behavior (see Ajzen, 1991, and Fishbein & Ajzen, 1975).

There are several possible explanations for this correlation pattern. One statistics-based explanation is that greater variance exists in the behavior measures than the intention measures. Although the dependent variables were assessed with a broad variety of instruments (and are therefore not directly comparable in terms of their variance), we saw no evidence of this across original studies. Further, it is likely that proscriptions on unethical behavior would be stronger than those on intention and thus would create more

restriction of range (Sutton, 1998). Similarly running counter to our findings, intention measures should have been more predictable, as they tended to have higher reliability estimates than did behavior measures (average $\alpha = .92$ vs. $.85$).

A potential theoretical explanation is consistent with an emerging conceptual approach to ethical decision making. We refer to it as the *ethical impulse perspective*. Several scholars have recently theorized that individuals respond to ethically charged situations in ways that are more automatic than deliberative (Chugh, Bazerman, & Banaji, 2005; Haidt, 2001; Moore & Lowenstein, 2004; Reynolds, 2006; Sonenshein, 2007; Sunstein, 2005). This ethical impulse perspective contrasts with the step-by-step, controlled cognitive processing evoked in the traditional *ethical calculus perspective* (e.g., Chang, 1998; Lewicki, 1983; Rest, 1986; Treviño, 1986). Reynolds (2006), for example, argued that individuals use prototypes to match ethical situations to actions. When a prototype is available (e.g., based on a similar situation one has experienced previously), the behavior linked with the prototype is more unthinking or mechanical and emanates from “reflexive judgment.” According to this logic, employees would default to a more automatic type of processing unless something in the situation, such as novelty (i.e., absence of a prototype; Reynolds, 2006), triggers more controlled processing (Haidt, 2001; Moore & Lowenstein, 2004).

Although the lack of prior work examining intention and behavior limits our interpretation of these results, substantial evidence exists within the broader psychological literature that “we are often not aware of our own mental processes or of what is guiding our daily moods, thoughts, and behavior” (Chartrand & Bargh, 2002, p. 14). For example, Bargh and colleagues found that contextual cues can trigger certain types of behavior (including antisocial behavior such as rudeness, hostility, and aggression) without conscious awareness (through preconscious automaticity; e.g., Bargh, 2006; Bargh & Ferguson, 2000; Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001; Dijksterhuis, Chartrand, & Aarts, 2007). In addition, automatic behavior can be primed via a consciously chosen goal that then continues to influence behavior unintentionally and without the individual’s awareness (i.e., goal-dependent automaticity; Bargh, 1989; Bargh & Chartrand, 1999, 2000).

This literature stream demonstrates the complexity of labeling any behavior as either automatic or controlled (see Moors & de Houwer, 2007, for a review) and thus has important implication for future behavioral ethics research. In particular, according to Bargh (1989, p. 8), “all automaticity is conditional”: that is, the individual features of pure automaticity (i.e., unintentional, involuntary, effortless, autonomous, and nonconscious) exist only in degrees. In this way, the “gradual view” (see Moors & de Houwer, 2007) suggests that unethical behavior is not purely automatic or controlled but rather exhibits greater and lesser amounts of the various features of automaticity. For instance, lying to a supervisor may reflect preconscious automaticity (e.g., primed by contextual cues outside of conscious awareness), whereas embezzlement and other white-collar crimes may require a consciously chosen goal but perhaps little cognitive effort after the fact (i.e., goal-dependent automaticity). Accordingly, future research should “investigate each automaticity feature separately and determine the degree to which it is present” (Moors & de Houwer, 2007, p. 11; see also Bargh & Chartrand, 2000) across types and situations of unethical behavior. This will also help elucidate the relationship

between the ethical calculus and ethical impulse perspectives. That is, when are certain unethical behaviors likely to be more automatic than calculative?

Furthermore, to the extent that certain unethical behaviors are more automatic, future research should examine how individuals might engage in impulse control. For example, Shmueli and Muraven (2007) found that undergraduates were more likely to cheat after completing an earlier activity that required high amounts of self-control (e.g., avoid typing “e” or thinking of a white bear). This is consistent with the conception of ego depletion described by Baumeister and colleagues (see Baumeister, Muraven, & Tice, 2000; Baumeister & Vohs, 2004; Baumeister, Vohs, & Tice, 2007): Self-control is a limited resource that can be reduced or partially exhausted in the short term after it is used. Therefore, certain characteristics of an organizational or task environment may “test” an employee’s ability or motivation to engage in highly calculative ethical processing. Similarly, Hofmann, Friese, and Strack (2009) theorized that some individuals (e.g., those high on trait self-control) appear to be better at impulse control than others, suggesting that individual differences related to self-regulation may contribute to researchers’ understanding of how to prevent the more impulsive types of unethical behavior.

Given our recommendations to study the calculative and impulsive pathways simultaneously, behavioral ethics researchers will likely need to consider alternative research methodologies. For example, the widespread use of vignettes and scenarios (Weber, 1992; Weber & Gillespie, 1998), although useful, may in some cases inadvertently prompt deliberation that takes participants out of the realm of more impulsive types of unethical decisions. An alternative option with great potential is the use of laboratory experimentation (McGrath, 1982). Prior research on automatic behavior provides well-developed laboratory-based paradigms that can be adapted for research on unethical behavior (see Bargh & Chartrand, 2000, and Fazio & Olson, 2003, for thorough reviews). For example, behavioral ethics researchers may be able to prime participants with a nonconscious goal that is characteristic of one of the three ethical climates (e.g., benevolent, egoistic, or principled climate; Victor & Cullen, 1988). Subjects could then be given the opportunity to cheat or lie to benefit themselves (e.g., Bargh et al., 2001). Another, albeit more ambitious alternative lies in the use of brain imaging technologies, such as the functional MRI, that offer the opportunity to more directly study nonconscious cognitive processing in morally charged situations (e.g., Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Robertson et al., 2007).

Implications for Deviance Research

Given the partial overlap between workplace deviance and ethical decision making (Robinson & Bennett, 1995; Treviño et al., 2006), this meta-analysis of the latter suggests important implications for research directed at explaining the causes of the former. First, after a thorough search of both literatures, we found little intersection between the antecedents studied by behavioral ethics and deviance investigators. For instance, in comparison to deviance (e.g., Cohen-Charash & Mueller, 2007; George, 1989; Pelled & Xin, 1999), affect is largely unstudied and is certainly understudied in the behavioral ethics domain (Gaudine & Thorne, 2001; Treviño et al., 2006). Likewise, few narrow personality or cogni-

tive style antecedents studied in behavioral ethics (such as CMD or locus of control) are investigated in the deviance literature. Our meta-analytic results also suggest the potential benefit of using broad normative environment variables as complementary explanations. Second, an ethical impulse perspective suggests that unethical behavior may be more intuitive than intentional. Although workplace deviance is often assumed to be more intentional (e.g., Spector & Fox, 2002), future research should consider that particular antecedents may differentially influence deviance depending on the behavior's more deliberative or intuitive characteristics (e.g., Lee & Allen, 2002).

Limitations and Further Research Opportunities

Our meta-analytic findings are tempered by the lack of primary data for certain relationships. For example, we set a lower bound of at least three studies ($k > 3$) for antecedent–unethical relationships. However, in our behavior versus intention moderator comparisons, the number of studies of moral intensity and code enforcement as antecedents dipped below the $k > 3$ bound. Thus, we were unable to strongly test the differential sensitivity of intention versus behavior for these constructs, and we had to temper our conclusions accordingly. Although the lack of appropriate studies (k) clearly limits our conclusions, it also recommends areas for future research. For instance, there is a pressing need for research that examines the influence of moral issue characteristics on ethical and unethical behavior. Certain dimensions of moral intensity, such as proximity to potential victims, may be more influential in “real” behavior situations than with contrived scenarios or vignettes (e.g., Grant et al., 2007). In addition, although we found a pattern of higher behavior correlations with some predictors, it is possible that issue-related variables (i.e., moral intensity) will make the harm of a particular ethical decision more salient to an individual and thereby affect intention (through controlled decision making) more than behavior.

Another implication of low k in some cells of our meta-analytic correlation matrix was that we were unable to compare the relative effect of all antecedents on each other or to provide a comprehensive test of certain foundational theories. First, as shown in Table 1, few studies measured multiple variables across predictor sets (individual, moral issue, and organizational environment), so we were able to test only the comparative effects of antecedents within the three major categories. Second, most of the studies we reviewed for this meta-analysis investigated only direct relationships between a proposed determinant and unethical choices. Thus, we were able to support only specific elements of foundational theories and provide partial rather than comprehensive tests. For example, Treviño (1986) proposed an explicitly interactionist model that uses environmental and dispositional variables to moderate the CMD–unethical behavior relationship. Our results address the CMD–unethical behavior main effect, but only a few studies included more than one component of the interactionist model (Ashkanasy, Windsor, & Treviño, 2006; Greenberg, 2002; Treviño & Youngblood, 1990). Consequently, there is a need for broader band research that investigates more complex configurations of individual, moral issue, and organizational environment variables. Given the complexity we uncovered even in main effects, such research is likely to turn up additional nuances.

Finally, the distinction between intention and behavior as a criterion, although important, did not account for all of the variation in effect sizes. After we split the sets of estimates, there was still significant variation in correlations for all of the predicted relationships. As we noted in the Results, this variation was not attributable to methodological factors. Future investigations should explore both the contextual or organizational conditions that might moderate individual difference effects and the mix of individual differences in a sample that might buffer or strengthen environment effects. In other words, these results further argue for studies that incorporate the interactionist perspective of apples in specific cases or barrels and study their conjunctive or combinatorial influences on unethical choices in organizations.

Conclusion

Despite increasing practitioner and academic interest in ethical decision making, many questions have remained about the fundamental drivers of unethical decisions. Are bad apples to blame for unethical ethical decisions; who are they? What are the characteristics of bad cases and bad barrels that might spoil the bunch? To help answer these questions, this meta-analysis compiled 136 studies from multiple literatures to test portions of extant theories and prominent variables within the behavioral ethics domain. We examined not only the potential impact of the widespread use of intention as a proxy for behavior, but also the comparative effects of antecedents within sets of individual, moral issue, and organizational environment antecedents on unethical intention and unethical behavior. Cumulative data suggest not only multiple sources or facilitators of unethical choice—bad apples, bad cases, and bad barrels—but also the intriguing possibility that these agents work at least sometimes through more impulsive, automatic pathways than through calculated or deliberative ones. With these findings and suggested future evidence, organizations should be better able to create and maintain a portfolio of selection, training, and management practices that resist ethical spoilage.

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