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Applying Cases to Solve Ethical Problems: The Significance of Positive and Process-Oriented Reflection

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Abstract

This study examined the role of reflection on personal cases for making ethical decisions with regard to new ethical problems. Participants assumed the position of a business manager in a hypothetical organization and solved ethical problems that might be encountered. Prior to making a decision for the business problems, participants reflected on a relevant ethical experience. The findings revealed that application of material garnered from reflection on a personal experience was associated with decisions of higher ethicality. However, whether the case was viewed as positive or negative, and whether the outcomes, process, or outcomes and processes embedded in the experience were examined, influenced the application of case material to the new problem. As expected, examining positive experiences and the processes involved in those positive experiences resulted in greater application of case material to new problems. Future directions and implications for understanding ethical decision-making are discussed.

Keywords

self-reflection; cases; experience; ethical decision-making; knowledge; case analysis; case method

Across professional fields, individuals regularly encounter ethical situations and must make judgments about how to respond to these challenging workplace problems (Ashforth & Anand, 2003). Making sense of the causes and implications of these complex, uncertain situations, understanding conflicting interests, goals, and motivations, and anticipating potential courses of action represent just some of the demands of thinking through ethical problems (Waples & Antes, 2011). The nature of the thinking processes underlying ethical decision-making has been of principal interest to scholars concerned with understanding and improving the ethical capacity of professionals (e.g., Mumford, Connelly et al., 2008; Ritter, 2006; Rest, 1986; Sonenshein, 2007). Mumford and colleagues (2008) described ethical decision-making as a sensemaking phenomenon involving several social-cognitive processes that allow one to make sense of the elements of the situation, consider potential outcomes, and choose a course of action, and their model has received considerable empirical support (Waples & Antes, 2011).

One central process of the sensemaking model (Mumford, Connelly et al., 2008) is self-reflection – drawing upon and examining stored knowledge about oneself, ethical problems, and experiences – to inform ethical decision-making. Drawing upon, examining, and utilizing self-relevant knowledge and experiences facilitates the complex cognition underlying problem-solving, decision-making, and learning (Anseel, Lievens, & Schollaert, 2009; Dörner & Schaub, 1994; Mezirow, 1990; Strack & Förster, 1998), but self-reflection processes specifically pertaining to ethical decision-making have received limited examination.

Given that ethical problems are social and self-relevant, reflection on personally relevant experiences or cases may provide a particularly critical source of knowledge to inform ethical decision-making (Anderson & Conway, 1993; Kolodner, 1992; 1993). In fact, the primary intent of the widely applied case method approach to ethics instruction is to construct a more complete, complex collection of cases that can later be reflected upon and applied to solve ethical problems (Jonassen & Hernandez-Serrano, 2002; McWilliams & Nahavandi, 2006; Pimple, 2007), but relatively little is known about the process of reflecting upon stored personal cases even though it is of key importance for understanding ethical decision-making and techniques for enhancing ethical decision-making.

Therefore, the purpose of the present study is two-fold. First, we explicitly examine whether applying information garnered from reflection on personal cases is related to the ethicality of decisions made regarding new ethical problems. Additionally, we investigate the effect of the nature of the case – whether it is viewed as positive or negative – and the strategy – examination of processes, outcomes, or processes and outcomes – applied to reflecting on elements embedded in the experience.

Self-Reflection and Ethical Decision-Making

When confronted with addressing an ethical problem, individuals might recall cases from personal experience or those learned vicariously through others or from ethics courses and then reflect on the ethical standards, principles, or guidelines, and personal values embedded within the case. According to Mumford et al. (2008), recalling and reflecting on personal

experiences and the standards, values, actions, actors, causes, and contingencies found within cases, provides an important source of information to be utilized to make sense of a new situation and arrive at a decision. Thus, self-reflection is critical for drawing on relevant experiences to provide an understanding of the problem and to examine possible solutions.

However, drawing upon one's stored knowledge and experience to be utilized for ethical decision-making is inherently complex (Daudelin, 1996; Dörner & Schaub, 1994). This stored information and examination of it is influenced by emotions, self-perceptions, and personal values, beliefs, and understandings of ethical problems (Waples & Antes, 2011). Consider the contrast of drawing upon this type of personally relevant knowledge and drawing upon knowledge pertaining to something like the state capital of a particular state—clearly these types of knowledge differ considerably. Ethically-relevant cases are emotional and subjective and recalling and examining this information involves personal biases, subjective evaluations, and personal perceptions (Ashton-James & Ashkanasy, 2008; Gaudine & Thorne, 2001; Haidt, 2001; Sonenshein, 2007). Therefore, the nature of the cases drawn upon and the strategies used to examine them are likely to play a central role in whether and how that information is applied to new problems (Rubin & Berntsen, 2003). However, because stored cases provide material that can be analyzed, adapted, and applied to make sense of new problems, they are expected to facilitate ethical decision-making when case material is applied to inform decision-making for new problems. Based on these observations, we propose the following hypothesis:

Hypothesis 1: Applying material from reflection on personal cases to new problems will improve decision ethicality.

Affective Framing of Cases

Although reflection on past cases is expected to aid ethical decision-making, not all approaches for thinking about case material are likely to prove equally effective. In particular, we expected that the affective frame and reflection strategy applied to case material would influence the application of that material to new problems. Examination of personally relevant cases is a challenging, cognitively demanding process that requires a person to actively examine past behaviors, actions, and decisions. If experiences are perceived as negative, individuals may not as actively engage in analysis of these cases because they threaten self-appraisals (Levin, Schneider, & Gaeth, 1998; Sedikides & Green, 2004), which will ultimately hinder the use of the case material for new problems.

The effect of the positively or negatively framed case material is particularly of interest given that the case method often relies upon negative exemplars of ethical transgressions. The underlying assumption of the case method is that the case material is stored to be later recalled and applied to new problems (Gentner, Loewenstein, & Thompson, 2003), but if negatively framed material is threatening and less likely to be applied for new decision-making efforts, this approach to case study may be problematic. The effectiveness of the case method approach depends upon students identifying with and engaging in analysis of case experiences (Pimple, 2007). If negative experiences are less personally engaging, this key condition is not met. Given that positive experiences are likely to be more actively analyzed, we proposed a second hypothesis:

Hypothesis 2: Reflection on positive as opposed to negative experiences will result in greater application of case material to new problems.

Analytic Approach

In addition to applying a negative or positive frame to experiences, individuals might apply different analytic tactics for reflecting upon cases that they recall (Nokes & Ohlsson, 2005). Given that there are many different elements of a case that might be examined in reflecting on that experience, the thinking strategies most effective for examining case material are critical for understanding ethical decision-making and how to facilitate reflection on case material. One general approach that might be applied is to emphasize the outcomes of a case or to examine the processes embedded within the experience (Escalas & Luce, 2003; Pham & Taylor, 1999; Taylor, Pham, Rivkin, & Armor, 1998); or individuals might apply a strategy where they examine both outcomes and processes. Outcome-oriented reflection focuses on end results and how things within a case scenario turned out; whereas process-oriented reflection focuses on steps and elements prior to the end results.

Given that outcomes and consequences are commonly the focus of ethics programs, codes, and problems (Stansbury & Barry, 2007; Yongqiang, 2008), it may be common for analysis of cases to emphasize outcomes and thus overstress deliberate, mechanical thinking. However, to effectively examine and extract information from an ethical experience to inform a new problem, thinking about processes, or elements, involved in the case may provide insight into the more undefined elements, embedded moral beliefs and social elements, and intuitive aspects of ethical decision-making (Marquardt & Hoeger, 2009; Reynolds, 2006).

Overall, a process-oriented strategy will result in more nuanced thinking and thus facilitate ethical decision-making for new problems. It is also plausible to argue that a combined process and outcome-oriented reflection strategy would be most effective, because it might foster more complete analysis of concrete elements *and* reflection on the less defined elements. Nonetheless, we expect that because process-only reflection will facilitate thinking in a more divergent manner, it will result in the most relevant information to be applied for ethical decision-making; although, the less effective thinking resulting from outcome-only analysis, maybe be offset by also applying a process-oriented strategy. Thus, we proposed a third hypothesis:

Hypothesis 3: A process-oriented reflection strategy will result in greater application of case material than an outcome-oriented reflection strategy, while a combined process-outcome reflection strategy will result in greater application than outcome-oriented reflection but less than process-only reflection.

People readily apply affective frames to experience (Levin, Schneider, & Gaeth, 1998; Martin, Stenmark et al., 2011; Van Schie & Van Der Pligt, 1995). Thus, we were interested in the combined effect of affective framing and reflection strategy. Given our propositions that a positive experience is more likely to be actively analyzed and process-oriented reflection will also facilitate analysis, we expected that process-oriented reflection on positive cases would yield the greatest application of material from reflection (Argembeau

& Van der Linden, 2003; Janiszewski, Silk, & Cooke, 2003). We expected outcome analysis to be ineffective no matter the affective frame, but we did expect that combining process-oriented reflection with outcome-oriented analysis might be particularly valuable when examining a negative experience because it might provide a mechanism for offsetting the threat associated with examination of the case. Therefore, we proposed the following interaction hypothesis:

Hypothesis 4: A positively framed case examined with a process-oriented reflection strategy will result in the greatest application of case material to new problems, followed by a negatively framed case examined with a combined process-outcome reflection strategy.

Method

Sample

One-hundred and thirty-four undergraduate students (52% males; 75% Caucasian) from a large southwestern university participated in this study. Participation was voluntary and students received extra credit in their courses for participating. The sample consisted of 82% business majors, and the average participant was 22 years old. The participants reported having been employed for an average of five years, and 60% of participants reported having had completed an ethics course.

Procedure

Undergraduate students were recruited in their business courses via verbal and written study announcements. The study was presented as an investigation of problem-solving on critical thinking exercises. Students were told that participation was voluntary and would require a three hour time commitment. Students then signed up for one of the scheduled sessions.

Upon arriving at the study location, participants were briefed about the general study purpose and procedures, and they were provided with an informed consent document. After confirming their desire to participate, each participant was provided with a packet of study materials, which were randomly assigned to contain the materials for the different experimental conditions. Before completing the materials inside of the packet at their own pace, the participants were asked to complete a verbal reasoning test, which was timed by the study proctor. Following this five minute timed test, participants completed the packet of materials according to the instructions provided on their materials.

Inside the packet of materials participants found a series of low-fidelity simulation business scenarios (Motowidlo, Dunnette, & Carter, 1990). The context for the hypothetical business was a small retail store which was selected because most undergraduate students have experience working in retail. Before the problems to be addressed by participants were presented, an introduction to the company and industry was provided. Additionally, background information was provided regarding the managerial role that the participants were to assume in the scenarios (see Appendix A). In each scenario, the manager was presented with an ethical problem that had major implications for the company and their position. The ethical problems in each of the scenarios represented one of each of the four

dimensions in a taxonomy of ethical misconduct developed by Helton-Fauth, Gaddis et al. (2003).

These dimensions, originally developed for misconduct in research, generalize across a number of professional fields (Kligyte, Marcy, Sevier, Godfrey, & Mumford, 2008; Stenmark, Antes et al., 2010), and include data management, study conduct, professional practices, and business practices. In this study, the data management scenario presented a situation that required the manager to decide how to handle reporting data from a selection instrument when fabrication of the data would benefit his/her preferred course of action (see Appendix B). The study conduct dimension, a dimension focusing on the treatment of individuals (i.e., research participants) for which a professional has responsibility, was translated into a business context. In this scenario, the manager had to make a decision about the treatment and wellbeing of employees. In the business practices scenario, a conflict of interest was presented wherein the manager must make a decision about selling a new product manufactured by a relative's company. Finally, the professional practices scenario required the manager to make a decision about how to handle a mistake that he/she made that would affect pay raises given to employees. All participants responded to each of the four scenarios, and presentation of these scenarios was counterbalanced to avoid order effects.

After reading each scenario, participants were asked to recall and reflect upon a relevant case from their experience and respond to several prompt questions about that instance. It was in the reflecting on the experience that the independent variables— affective frame and analytic approach—were manipulated. These manipulations are described in the next section. In addition to instructions to recall and reflect upon a relevant past experience, participants in all conditions were also provided with an example of the type of situation they were to recall and think about to clarify the instructions and encourage reflection on appropriate, relevant information. For example, for the data management scenario, participants were prompted to think about a situation where they were faced with a problem about submitting some kind of information, such as submitting a time card, grades, or reporting previous employers or salary on an application, where there was a temptation to change things slightly before turning over the information. After recalling and reflecting on the experience, participants returned to the new business problem and indicated what decision they would make and why.

The packet of materials also contained covariate measures used to capture individual differences, such as trait affect and task engagement, which might influence performance on the business scenarios. After completing the scenarios and covariate measures, participants placed their study materials back into their envelopes and turned in their packets to the study proctor. Participants were then given a debriefing form and thanked for their participation.

Manipulations

The manipulations in this 2×3 experiment influenced the affective frame – positive or negative – and the analytic strategy – process, outcome, or process-outcome – employed by participants when they recalled and thought about a prior, relevant experience. The manipulations were embedded in the instructions and prompt questions provided to

participants to guide their thinking. Specifically, the affective frame manipulation was embedded within the instructions for the type of case that participants were to recall and think about. The instructions either indicated that the participant should recall an experience that he/she felt was positive or negative.

After prompting participants to recall a negative or positive case, several questions manipulated the analytic strategy applied to think about the case. Participants were asked to write out their thinking with regard to these questions. In the process-oriented condition, participants responded to three questions about the processes involved in the prior experience. For example, participants were asked about factors that they considered in working through the prior situation and why those factors were important. In the outcome-oriented condition, participants were asked to respond to three questions about the consequences of the decisions in the previous situation. For instance, they were asked to consider whether the prior decisions were effective. Participants in the process and outcome condition thought about both processes and outcomes of the prior experience by responding to three questions—one process, one outcome, and one two-pronged process-and-outcome question.

Manipulation checks were performed to confirm that participants appropriately followed the instructions and experienced the intended manipulations. The checks were performed by content coding the participants' responses to the prompt questions. The judges were four doctoral graduate students in industrial and organizational psychology who were familiar with the ethics and ethical decision making literature but not the study hypotheses under examination. The judges completed a five hour training session where they were learned the definitions of affective frame and analytic strategy and were provided with examples. Then the judges practiced scoring the responses and discussed discrepancies before continuing to code all of the responses.

The manipulation check score for analytic strategy was assigned by indicating the extent to which the response provided by the participants was oriented towards processes (scored as 1), processes and outcomes (scored as 2), or outcomes (scored as 3). Affective frame was scored on a 5-point scale according to whether the case described by the participant was negative or positive, with 1 being very negative to 5 being very positive. Inter-rater agreement was assessed via intra-class correlation coefficients (ICC), and revealed adequate agreement with an average ICC of .62 for analytic strategy and .82 for affective frame. A t-test comparing the mean scores revealed that participants in the negative condition described more negative cases ($M = 2.57$, $SD = .46$) compared to participants in the positive condition ($M = 2.89$, $SD = .51$), $t(135) = 3.79$, $p < .01$. A comparison of means for the analytic strategy manipulation check revealed statistically significant differences among the conditions, $F(2, 134) = 9.86$, $p < .01$. Post-hoc analysis using Fisher's least significant differences method indicated that the process condition ($M = 1.95$, $SE = .08$) was statistically significantly different ($p < .01$) from the outcome condition ($M = 2.43$, $SE = .08$) but not from the process-and-outcome combined condition, although the mean for the process-and-outcome condition was in the middle as expected ($M = 2.09$, $SE = .08$). The outcome condition was statistically significantly different ($p < .01$) from the process-and-outcome combined condition.

Dependent Variables

Given that each participant recalled and reflected on their own cases and then generated a solution for the business problems, participants were asked to respond in an open-ended fashion to allow a range of potential responses. Therefore, the written responses generated by participants were coded for the dependent variables of interest. To prepare for scoring the dependent variables, the judges completed 10 hours of training. Judges were familiarized with the definitions of the dependent variables to be coded, and they received rating scales that provided benchmarks for scoring the participants' responses (Redmond, Mumford, & Teach, 1993). The benchmarks provided exemplars obtained from the participants' materials demonstrating responses that should be scored as 1 (low), 3 (moderate), and 5 (high) on the rating scales. In this training, the judges practiced coding the participants' responses and discussed discrepancies until they were clear on the definitions and use of the benchmark rating scales.

Ethicality—To obtain ethicality scores for the decision made with regard to the business problems, the judges rated the participants' written responses describing their decisions on each problem. Ethicality was scored on a 5-point scale, with 1 representing low ethicality; 3 representing moderate ethicality, and 5 representing high ethicality. The participants' decisions were examined for their ethicality according to the following criteria. Decisions must show regard for the welfare of others, attention to personal responsibilities, and adherence to professional guidelines and social obligations. Thus, responses of high ethicality were those that reflected these criteria to a large extent, moderately ethical decisions reflected these elements to some extent, while low ethicality scores were assigned to decisions that showed little or no regard for others, a focus on personal gain, and failure to adhere to professional standards of conduct. The judges showed high inter-rater agreement in their ratings of the ethicality of the decisions. Averaged across the four scenarios, the intra-class correlation coefficient was .81.

Application of Case Material—The other dependent variable scored by the judges was application of the reflected on case material to the new problem. To obtain scores for application, the judges scored whether aspects of the recalled case – written about in the responses to the manipulation questions – were referred to, present, or connected to the decisions made for the new business scenarios. Application was scored on a 5-point scale, with little or no presence of application receiving a low score of 1 or 2, moderate application receiving a score of 3, and a great deal of application received a score of 4 or 5. For example, when participants noted similarities or differences between the two situations in terms of what actually happened, what they wished to happen, or what they expected to happen, they would receive higher scores on the application score. Other markers indicating application of the reflection to the current decision scenario were references to the reflection scenario in the decision and clear parallels between, or divergence from, the actions or decisions in the two situations, such as repeating past behavior, or avoiding past behavior, having learned from past experience. The intra-class correlation coefficient (.74) across the four scenarios indicated that the judges showed high agreement in their application scores.

Covariates

Several individual difference variables were measured to control for their potential influence on participants' performance. Given the written nature of the research task, verbal reasoning was measured using the Employee Aptitude Survey (Ruch & Ruch, 1980). On this measure, participants receive 5 minutes to read six sets of facts and determine the accuracy of conclusions arising from the facts. Coefficient alpha for the scale was $\alpha = .85$.

Trait affect was also examined because of the potential for the positive-negative framing manipulation to induce affective reactions. Trait affect was measured using the Positive and Negative Affect Scale (Watson, Clark, & Tellegen, 1988). This 20-item (10 positive and 10 negative) measure captures positive ($\alpha = .83$) and negative ($\alpha = .84$) affect by asking people to report, on a 5-point scale, the extent to which the positive and negative adjectives (e.g., excited and irritable) describe how they have felt over the past month.

Task engagement was assessed using a 7-item scale (e.g., "Did you try to fully complete all of the activities in this experiment?"). Participants reported, on a 5-point scale, their level of engagement and interest in study participation, as task motivation influences the effectiveness of manipulations and participant responses. The scale reliability for this measure was .67.

Finally, given the nature of the research task, the extent to which participants responded in a detailed, complete manner to the open-ended writing tasks was assessed. These scores were obtained by asking the judges to rate, on a 5-point scale, the extent to which the participants' responses demonstrated depth and detail. The intra-class correlation coefficient of .87 was obtained for these ratings, revealing agreement among judges with respect to response elaboration.

Analyses

As noted above, four ethical decision-making scenarios were included to examine decision-making on several different types of ethical problems. Because the pattern of results for ethicality and application of case material did not differ across the types of ethical problems, the final analyses were conducted at the aggregated level by averaging the scores across the four scenarios. The covariates were also examined prior to the final analyses, and they were retained if they produced p-values equal to or less than .10. The only covariate retained in the final analyses was elaboration.

A regression analysis examined whether application of case material was associated with decisions of greater ethicality. In this analysis, elaboration was entered as a predictor of ethicality in the first block to control for its influence, followed by application of case material in the second block. To examine the effects of affective frame and analytic strategy an analysis of covariance was conducted with application of case material as the dependent variable and elaboration as a covariate.

Results

As reported in Table 1, application scores were used to predict the ethicality of decisions, after controlling for elaboration. In support of Hypothesis 1, which stated that the application of case material to a new problem would be associated with decisions of greater ethicality, application of case material was a statistically significant predictor of decision ethicality ($\beta = .24, p < .05$). The model consisting of elaboration and application of case materials accounted for nine percent of the variance in ethicality scores.

It is of note that this R-squared value, although statistically significant, is small. However, this value is not of great concern in the present study because the Mumford et al. (2008) model stresses the operation of multiple processes that facilitate ethical decision-making, and just one process has been singled out for examination in this study. Moreover, this R-squared value is based on just two predictors, and the beta coefficient reflecting the effect size for reflection application is sizable.

In addition to proposing that applying case material to a new problem would facilitate ethical decision-making, we proposed that reflection on different types of cases and different approaches for thinking about those cases would affect the extent to which individuals applied case material. Table 2 presents the results obtained in the analysis of the effects of affective frame and analytic strategy.

Hypothesis 2 and 3 were main effect hypotheses, suggesting that affective framing would produce a significant effect for application of case material, such that reflection on positive cases would result in greater application compared to negative cases. Although the pattern of results suggested that application was higher for positively framed cases, it was not statistically significant relative to negative cases. Similarly, the main effect for analytic strategy was not statistically significant, although, as proposed, the pattern suggested that process and process-outcome strategies resulted in greater application than outcome strategies. As shown in Table 2, the interaction effect, proposed by Hypothesis 4, was statistically significant, $F(2, 127) = 3.56, p < .05$.

Examination of the cell means (adjusted for elaboration) for application of case material provides evidence for the nature of the interaction effect (see Table 3). As proposed by Hypothesis 4, positively framed cases examined with a process-oriented reflection strategy resulted in the greatest application of case material to new problems ($M = 2.96, SE = .15$), followed by negatively framed cases examined with a process-outcome reflection ($M = 2.54, SE = .15$). Much less case application resulted when reflecting only on processes ($M = 2.33, SE = .15$) or outcomes ($M = 2.36, SE = .15$) with regard to negative cases, and reflection on outcomes was no more effective when examining positive cases ($M = 2.36, SE = .15$).

In summary, Hypothesis 1 was supported. Applying case material from experiences was associated with more ethical decisions. The main effect hypotheses (Hypotheses 2 and 3) were not supported. However, the interaction hypothesis (Hypothesis 4) was supported. The findings indicated that examining processes involved in positive cases resulted in greater application of case material to new problems. The findings also suggested that when individuals reflected on the outcomes of past experiences, also thinking about processes

compensated to some extent for the limited application of case material observed when only thinking about outcomes. This compensatory mechanism was especially prominent when thinking about past negative experiences, likely because they permitted the individual to engage in reappraisal of a personally threatening event (Wisco & Nolen-Hoeksema, 2009).

Discussion

We examined the effect of recalling positive or negative cases and the strategy used to examine those cases on the use of that case material for solving new problems. We found that when case material was applied to a new problem, it was associated with more ethical decisions. However, the nature of the cases and the manner in which they were reflected on influenced whether the case material was applied. Specifically, examining positive experiences and thinking about the processes involved in those cases encouraged the application of material to a new problem. Understanding the effects of the nature of cases and the manner in which they are examined is critical for understanding ethical decision-making processes.

Moreover, these findings with respect to case reflection to inform ethical decision-making pose some questions with respect to case methods utilized in classroom instruction to facilitate ethical problem-solving and ethical behavior among professionals (Bell & Kozlowski, 2008; Gravin, 2007; Henson, Kennett, & Kennedy, 2003; Smith, Fryer-Edwards, Diekema, & Braddock, 2004). These techniques are aimed at adding to the case-based knowledge available for individuals to draw upon. Yet, the nature of cases and how they are examined specifically are rarely considered; instead it is commonly taken for granted that case material, or ethics instruction more generally, is beneficial for future ethical decision-making (Antes, Murphy et al., 2009; Antes, Wang, Mumford, Brown, Connelly, & Devenport, 2010).

The present findings suggest that there may be more and less effective types of cases and means for thinking about case material. Understanding such effects would improve our ability to not only deliver case-based instruction, but would also allow us to better educate individuals about how to think about cases and experiences in future situations where they call upon that information. Indeed, techniques such as role-play are explicitly intended to develop experiential knowledge and skill for working with this knowledge (DeNeve & Heppner, 1997; Gremler, Hoffman, Keaveney, & Wright, 2000).

The findings with regard to negative cases are particularly interesting because ethics scandals are commonly those that are most salient, tend to be especially engaging, and thus are likely to be discussed (Sleeper, Schneider, Weber, & Weber, 2006). Of key interest then is whether these negative examples are likely to facilitate problem solving in future situations, especially relative to cases of positive, ethical behavior. It is likely that negative cases are more personally threatening and these examples of are not likely to be internalized as personally relevant, thus they may not be available, or examined, for future problem-solving (Alicke, & Sedikides, 2009; Argembeau & Van der Linden, 2003; Denny & Hunt, 1992). This proposition is an important question for future research.

Of course, there may be a great deal that can be learned from negative cases, thus strategies for examining these cases that will benefit future application of that material are of key interest. The present findings suggest that it is important to go beyond outcomes and examine the processes involved in these situations. Overall, the benefit of process-oriented analysis reaffirms the importance of active thinking for ethical decision-making. Future work might examine specifically the nature of the elements, such as social interactions, motivations, and assumptions, examined in such analysis and their role in ethical decision-making. Overall, reflecting on processes rather than outcomes allows for the extraction of information that can be applied to make sense of a new situation (Escalas, 2004; Escalas & Luce, 2003; Oettingen & Mayer 2002; Pham & Taylor 1999; Rivkin & Taylor 1999; Taylor et al. 1998).

Although it appears that it is possible to overcome, at least to some extent, the detrimental effect of negatively framed experiences by focusing on both outcomes and the processes, the effect of examining positive cases in classroom settings and strategies for doing so presents an important area for future examination. Positive cases may allow individuals to incorporate this information into one's case-based knowledge, as it is more easily viewed as self-relevant because people are not likely to attribute negative behavior to themselves or their social groups (Hewstone, 1990). In fact, thinking about poor behavior of others allows people to credential their own personal ethical nature and in turn engage in unethical behavior (Brown, Tamborski et al., 2011). Moreover, other research has suggested that examining negative behavior can be detrimental in other ways, promoting cynicism and pluralistic ignorance (Antes, Brown et al., 2007; Halbesleben, Wheeler, & Buckley, 2005). Negative cases may also limit active analysis because they may be less ambiguous than other cases, leaving less room for examination (Rubin & Berntsen, 2003). Ultimately, for cases—whether personally experienced or discussed in a classroom setting—to be valuable for problem solving, they must be stored, retrieved, and applied. Techniques for storing, retrieving, examining, and applying case material require future examination.

Along these lines, it is also important to understand how self-reflection and other processes in ethical decision-making, such as emotion, operate jointly to influence decisions (Kligny, Connelly, Thiel, Devenport, Brown, & Mumford, 2008). Affective explanations might account, at least in part, for the effects of examining case material. For example, reflecting on a positive case or experience might serve an emotional regulation function by removing one's thinking from the current situation to allow more thorough analysis in another less threatening context (Josephson, Singer, & Salovey, 1996; Sarason, Potter, Sarason, 1986). Indeed, Gross (1998) describes reflection on incongruent past affective events as a form of the distraction regulation strategy, which is used to change an emotional experience by shifting attention away from the current affect-eliciting event.

Clearly, more research is needed to understand the influence of reflecting on personal experiences and case examples to inform ethical decision-making. In the present effort, we have focused on the effects of general positive and negative affective frame, but cases that induce discrete emotional reactions, such as anger, fear, or excitement, may operate differently than general affect (Maitlis & Ozcelik, 2004; Tiedens & Linton, 2001). Overall,

this study suggests important issues for investigation, and indicates that there may be some particular value in positive case examples (Pritchard, 1993).

It is perhaps somewhat early in this line of investigation to make strong instructional recommendations, but these findings do suggest that there may be a place for reflection on personal experiences and practice in applying case material in ethics instruction. Such instruction might focus on informing people of the value of drawing upon personal experiences and techniques for doing so effectively. In addition, this approach would emphasize active and ongoing learning by encouraging a reflective analysis of personal experiences, such that ethical events are examined, evaluated and incorporated into one's knowledge to facilitate future decision-making (Bell & Kozlowski, 2008; McAdoo & Manwaring, 2009). It may even be possible to provide individuals with techniques reframing negative personal experiences more positively (Wisco & Nolen-Hoeksema, 2009). Additional research will shed light on just how to instruct people to analyze personal cases and what elements to focus on.

Our conclusions and implications should be considered in light of several limitations. First, the present study was conducted in a sample of undergraduate students, which may limit generalizability of these results to individuals who are older, or have more work experience. However, this concern is mitigated somewhat, given that the sample was older than the typical undergraduate sample, and the majority of participants reported having work experience. Another limitation pertains to the methodology employed; we utilized simulated business scenarios where participants took on the role of a character, but nonetheless these are not real-world problems. However, this methodology provides a low-risk assessment of the critical variables of interest, and has been shown to provide reliable and valid results studying ethics-related phenomena (Mumford et al. 2006). However, as the results indicated, the effect sizes obtained in this study were small.

In addition, in this study, participants were prompted to self-reflect upon a past experience, as opposed to spontaneously drawing upon this information. It may be that individuals do not naturally ask themselves the types of questions about past experiences that they were asked to think about here. Finally, given the range of potential solutions and explanations for decisions that participants might choose, participants responded to the study prompts in an open-ended fashion. Thus, measurement of the dependent variables was based upon expert ratings of these responses. Although the raters were extensively trained in the constructs of interest, provided benchmark examples, and the inter-rater agreement coefficients were sizable, this approach to measurement may be a weakness because it is somewhat subjective.

Despite this study's limitations, these findings provide evidence that past experience is an influential source of information to draw upon when facing ethical problems. Additional research examining self-reflection and other processes in ethical decision-making is needed to better understand this complex phenomenon. We are hopeful that this study will encourage that future work.

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Appendix A

Background Information

Buy More is a retail store franchise that has 20 locations in the Southwest and specializes in selling high end products for use in peoples' homes. Because it is a franchise, each store is individually operated so that they sell the same products, but the managers can make many decisions about their individual stores, such as hiring and firing employees and buying different products to meet the local needs of the customers. Buy More specializes in selling high quality products and caters to upper middle class customers. They pride themselves on their standards for quality products and satisfaction, boasting the slogan "Buy More, Buy Better." Customers seem to enjoy being able to buy better quality products that break less and hold up over time, and this has made Buy More relatively successful in the retail market. Since being founded 30 years ago, Buy More has continued to grow and expand its number of franchises.

You are the store manager for the Buy More store in your hometown. You have worked at this store for 9 years and are generally happy with your job. You worked your way up from an hourly sales associate to being a supervisor to finally becoming the manager for the entire store. On average, you manage about 25 employees, but many more during the holiday season. On a daily basis, you oversee the employees who work on the sales floor, oversee incoming shipments, handle customer service complaints, and monitor the cashiers. When needed, you also train new employees. As the store manager, you are also responsible for keeping an eye on the store's profit margin, managing the store's bank accounts, and making the nightly deposits at the bank.

Appendix B

Data Management Scenario

One of the managers at another store resigned and your company urgently needs to hire another one. In the past, the company has promoted from within as well as hired people from outside of the company. You have always supported promoting current employees before outside employees, especially as your current employees have stuck with the company for a while and performed well. Your corporate supervisor started the interviewing process and selected two top candidates; one is from outside of the company and another, Alex, is a supervisor in your store that you think would be perfect for the position. Alex has worked for the company for 5 years and has been committed and dedicated to his work. Your supervisor does not care who you hire as long as you find a qualified person to fill the position as soon as possible. Your supervisor tells you to make the final decision and send the report to the corporate human resources department. If you want to hire someone from within, you have to review the performance appraisal (PA) scores for the recommended

employee looking at the past 3 years of performance. Your supervisor gives you the resume and interview score for the external applicant and tells you to make a similar report for Alex so that they can be compared. Your supervisor tells you that Alex should have the same or better performance than the other applicant.

You look at the external applicant's resume and it is really good. He has a college degree and a lot of job experience, but has not worked in this specific area of retail. You are personally convinced that he is not committed to this job for a career, and will likely leave the company after a few years, but you don't have the facts to prove it. You were not present at the interview to make an accurate judgment about how long he might stay with the company. When you summarize the performance scores, Alex's task performance score is 4.4 and social performance is 4.5, whereas the external candidate has 4.6 and 4.8. Alex didn't do very well when he started because it took him some time to get used to this kind of work, but his performance has increased over the last two years. If you don't count his first year of performance appraisal scores, he has a 4.7 and a 4.9.

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Table 1

Regression Analysis Predicting Ethicality from Application of Case Material

	β	R ²	R ²
Block 1		.04 [*]	
Elaboration	.20 [*]		
Block 2		.09 ^{**}	.05 [*]
Elaboration	.11		
Application of Case Material	.24 [*]		

Note.

β = standardized beta coefficient

*
 $p < .05$

**
 $p < .01$.

Table 2

Analysis of Covariance for Application of Case Material

	df	F	η_p^2	p
<u>Covariate</u>				
Elaboration	1, 127	23.89**	.16	.000
<u>Main Effects</u>				
Affective Frame	1, 127	2.17	.02	.144
Analytic Strategy	2, 127	1.772	.03	.174
<u>Interaction</u>				
Frame $\times$ Strategy	2, 127	3.56*	.05	.031

Note. *df* = degrees of freedom; *F* = F-ratio; η_p^2 = partial eta-squared; *p* = p-value.

*
p < .05.

**
p < .01

Table 3

Adjusted Means for Affective Frame and Analytic Strategy on Application of Case Material

	Frame				
	Negative		Positive		
	Mean	SE	Mean	SE	Mean
<u>Analytic Strategy</u>					
Process	2.33	.15	2.96	.15	2.65
Outcome	2.36	.15	2.36	.15	2.36
Process & Outcome	2.54	.15	2.45	.15	2.50
Mean	2.41		2.59		

Note. SE = standard error.