Systemic incongruity: Bringing Down the Risks of Conformity and Deviation Biases

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Abstract
Employees often have to decide whether to conform to or deviate from the status quo. Exhibiting consistent preferences for either preserving or maintaining the status quo (i.e., conformity biases) or for challenging or rejecting the status quo (i.e., deviation biases) can be costly. Conformity biases prevent employees from adapting to changing task demands and deviation biases hamper the predictability and reliability of decisions. It is therefore important for scholars and practitioners to understand how to engineer work environments that, to the degree possible, enable employees to bring down both types of risks. However, our understanding of this issue is limited because organizational behavior researchers to date have focused on reducing conformity biases but slighted the opposing risks of deviation biases. This dissertation is dedicated to filling this gap. Challenging research on the benefits of congruent work environments that send consistent normative signals, I demonstrate how congruity can push employees into stable patterns of conformity or deviation whereas incongruity can trigger more flexible thinking that enables employees to reduce both biases. Chapter 1 examines how incongruent combinations of distributive justice systems and cultural values--egalitarian-individualist and meritocratic-collectivist--tamp down both risks by encouraging employees to fluidly shift between loss-minimizing and gain-maximizing frames. Chapters 2 and 3 present two laboratory experiments that demonstrate how incongruent combinations of cultural values and accountability systems--collectivist values / outcome systems and individualist values / process systems--can also control exposure to both risks by encouraging decision makers to iterate between the micro details and big picture. Finally, Chapter 4 investigates how blends of cultural values and accountability systems shape managerial tolerances for employees who exhibit conformity or deviation biases. In a field study of working supervisors, I show that managers in congruent combinations--collectivist values / process systems or individualist values / outcome systems--either prefer conforming employees or deviating employees, respectively, but managers in incongruent combinations have no discernible preference. Overall, this dissertation offers novel ways to offset the risks of various organizational systems and encourages the field to reassess the benefits of intrapsychic conflict in light of the clashing demands employees confront today.

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SYSTEMIC INCONGRUITY:
BRINGING DOWN THE RISKS OF CONFORMITY AND DEVIATION BIASES

Shefali V. Patil

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ABSTRACT

SYSTEMIC INCONGRUITY:
BRINGING DOWN THE RISKS OF CONFORMITY AND DEVIATION BIASES

Shefali V. Patil

Dr. Philip E. Tetlock

Employees often have to decide whether to conform to or deviate from the status quo. Exhibiting consistent preferences for either preserving or maintaining the status quo (i.e., conformity biases) or for challenging or rejecting the status quo (i.e., deviation biases) can be costly. Conformity biases prevent employees from adapting to changing task demands and deviation biases hamper the predictability and reliability of decisions. It is therefore important for scholars and practitioners to understand how to engineer work environments that, to the degree possible, enable employees to bring down both types of risks. However, our understanding of this issue is limited because organizational behavior researchers to date have focused on reducing conformity biases but slighted the opposing risks of deviation biases. This dissertation is dedicated to filling this gap. Challenging research on the benefits of congruent work environments that send consistent normative signals, I demonstrate how congruity can push employees into stable patterns of conformity or deviation whereas incongruity can trigger more flexible thinking that enables employees to reduce both biases. Chapter 1 examines how incongruent combinations of distributive justice systems and cultural values—egalitarian-individualist...
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CHAPTER 1

BLENDING DISTRIBUTIVE AND CULTURAL SYSTEMS

Employees often have to decide whether to conform to or deviate from the status quo. The decision is not easy—and can carry serious consequences. Sometimes the status quo is inappropriate for the situation at hand. That is, current work methods and routines (Morrison & Phelps, 1999; Staw & Boettger, 1990), decision making protocols (Feldman & March, 1981; Sutcliffe & McNamara, 2001), and bureaucratic rules (Canales, 2014; Morrison, 2006) are inadequate for a given task. In these instances, employees who exhibit conformity biases—or tendencies to favor preserving or strengthening the status quo—run the risk of failing to bring about appropriate or necessary change. But sometimes current work methods and routines, decision making practices, and bureaucratic rules are adequate (Arkes, Dawes, & Christensen, 1986; Dean & Sharfman, 1993; Hackman & Wageman, 1995). In these instances, employees who exhibit deviation biases—or tendencies to favor challenging or rejecting the status quo—run the risk of bringing about inappropriate or unnecessary change.

Both biases can be costly for organizations (Leana & Barry, 2000). Conformity biases hamper learning and adjustment in changing task environments (Grant & Ashford, 2008; Griffin, Neal, & Parker, 2007). Microsoft’s recent history under former CEO Steve Ballmer is replete with instances of senior executives who exhibited strong conformity biases (Eichenwald, 2012). These executives frequently strangled “innovative ideas that might threaten the established order of things” (Eichenwald, 2012: 1). In the eyes of some critics, one of the reasons why Microsoft continues to lag behind the likes of
Facebook, Google, and Apple is that these executives exhibited an unflagging loyalty to the status quo. But deviation biases can also be costly. Deviation biases hamper routine learning, predictability, and efficiency in stable task environments (Canales, 2014; Levitt & March, 1988). The actions of Donald Burr, former CEO of People Express Airlines, are a case in point (Prokesch, 1986). In the 1980s, People Express enjoyed roaring success as the fifth largest carrier. However, Burr began rapidly overturning all the practices and routines the organization had been following for years. Among other things, he broke with tradition and bought a heavily unionized carrier, took on operations that were typically contracted out, and suddenly refused to reimburse travel agents for lost passenger tickets. People Express soon became “People Distress”. The carrier no longer exists.

Given these costs, it is important for scholars and practitioners to understand which types of work contexts increase employees’ vulnerabilities to one bias or the other—and whether it is possible to design work settings that bring down the risks of both biases. At present, our understanding of this issue is quite limited. The primary reason why our understanding is limited is that organizational behavior scholars have focused quite exclusively on reducing only one of the two opposing risks: conformity biases. For example, they have examined ways to encourage proactivity (Grant & Ashford, 2008), creativity (Miron-Spektor, Gino, & Argote, 2011b), creative deviance (Mainemelis, 2010), experimentation (Lee, Edmondson, Thomke, & Worline, 2004), individual innovation (Scott & Bruce, 1994), de-escalation of commitment (Ross & Staw, 1993), and adaptivity (Pulakos, Arad, Donovan, & Plamondon, 2000). All these behaviors are change-oriented—they involve challenging prevailing ways of doing things (Griffin et al., 2007).
Among other reasons, organizational behavior scholars may be preoccupied with reducing conformity biases because of the field’s social psychological underpinnings. Classic findings in social psychology have found that people are prone to deferring to the beliefs and opinions of others, sometimes even when those opinions are clearly wrong (Asch, 1951, 1956). People are especially prone to conforming to accepted ways of doing things because they look to others as reliable sources of information and want to avoid social disapproval (Deutsch & Gerard, 1955). Organizational scholars also tend to be particularly suspicious of social forces that encourage conformity, which they find to be particularly pernicious (e.g., O’Reilly & Chatman, 1996).

I do not contest these findings and arguments—or the value of exploring ways to mitigate conformity biases in organizations. However, the skewed emphasis on reducing conformity biases precludes us from having a more balanced conversation about the different types of risks to which employees are exposed. And because of this skewed emphasis, organizational behavior research continues to significantly lag behind its macro counterparts in organizational theory and strategy. For the past two decades, macro researchers have argued that organizations face competing pressures to balance the analogous tradeoffs of exploitation and exploration, standardization and flexibility, and stability and change (e.g., Adler et al., 2009; Farjoun, 2010; March, 1991). But due to the relative silence of organizational behavior scholars on the issue, we have very limited insights on how individual managers manage similar conformity-deviation tradeoffs (Lavie, Stettner, & Tushman, 2010).

My objective in this chapter is to correct for these limitations. I do so by examining how different types of organizational cultures elevate or attenuate the risks of conformity or deviation biases at the individual level. Organizational culture is a form of social control—a system of shared values, norms, and expectations (O’Reilly & Chatman,
1996). I approach my focal question from an organizational culture perspective because these cultural systems fundamentally shape how employees approach internal and external problems (Schein, 1992b)—and how they ultimately think and act (Hofstede, Neuijen, Ohayv, & Sanders, 1990; Schein, 1983; Trice & Beyer, 1993). In particular, scholars have argued that organizational culture affects the degree to which employees attempt to protect or challenge the status quo (Flynn & Chatman, 2001; Goncalo & Staw, 2006). As such, organizational culture is a particularly relevant—and important—lens to explore how work environments can be designed to bring down the risks of conformity and deviation biases.

The remainder of this chapter proceeds as follows. First, I specify my conceptualization of conformity and deviation biases. Next, I present my model by distinguishing among different types of organizational cultures and explaining how and why these cultural systems elevate or attenuate the risks of conformity and deviation biases. Following this section, I explain why organizational cultures that elevate the risks of either bias are likelier to be sustained in organizations. Finally, I discuss the theoretical implications of my model. Of note, my model challenges prevalent notions in organizational behavior scholarship that work contexts that trigger the same psychological states are more beneficial than those that trigger conflicting psychological states (cf. Erez, 1986; Lee et al., 2004; O'Reilly, Chatman, & Caldwell, 1991). By contrast, I highlight the benefits of work contexts that trigger clashing psychological states in reducing exposure to both opposing sets of risks. I also discuss the implications that my model has for more macro theories on how organizations balance exploitation and exploration—and identify a number of directions for future research.
CONFORMITY AND DEVIATION BIASES

To reiterate, employees can exhibit tendencies to continuously preserve or maintain the status quo (conformity bias)—or employees can exhibit tendencies to continuously challenge or alter the status quo (deviation bias). There are three aspects of conformity and deviation biases that should be further specified.

First, “status quo” broadly refers to current ways of thinking in the organization. Certainly, the term “status quo” has been used in a variety of different literatures. For the purposes of building this theoretical model, it generally refers to: (a) standard decision making practices and protocols (Edmondson, 2008; March & Simon, 1958; Sutcliffe & McNamara, 2001); (b) current work methods, routines, and policies (Detert & Burris, 2007; Grant & Parker, 2009; Staw & Boettger, 1990); and, (c) existing bureaucratic rules (Canales, 2014; Morrison, 2006; Tyler & Blader, 2005). Standard decision practices, current work methods, and bureaucratic rules all reflect prevailing beliefs about how work activities should be conducted—and how the organization should function (Levitt & March, 1988). They serve a variety of instrumental and symbolic functions. On the instrumental end, standard practices stabilize decision making, increasing the predictability and reliability of decisions (Dean & Sharfman, 1996; Hackman & Wageman, 1995). On the symbolic end, standard practices help organizations signal to scrutinizing constituencies that they are complying with socio-political values and norms (Edelman, 1992; Meyer & Rowan, 1977).

Second, for each situation, employees often have to decide whether to preserve or reject the status quo. My model proposes that certain cultural systems increase employee tendencies to consistently preserve—or reject—the status quo across a series of situations over time. Employees who continuously exhibit conformity biases risk failing to adapt to changing task demands (Grant & Ashford, 2008). Employees who
continuously exhibit deviation biases risk bringing about unnecessary change to stable or routine task demands (March & Simon, 1958). But employees who simultaneously bring down the risks of both conformity and deviation biases learn when to conform and when to deviate—and thus achieve a more productive balance between conformity and deviation as tasks fluctuate between stability and change over time (Canales, 2014). Compared to those who exhibit either extreme biases, employees who bring down the risks of both biases essentially incur a fewer number of situations in which they inappropriately conformed to or inappropriately deviated from the status quo.

Third, I acknowledge that task predictability caps the degree to which employees can reduce the risks of both conformity and deviation biases. Sometimes there is so much uncertainty that employees can simply do not better than incur the risks of conformity biases or incur the risks of deviation biases—and adjust between these preferences depending on what is being rewarded (Taleb, 2010; Taleb, Goldstein, & Spitznagel, 2009). Certainly there are tasks in which this uncertainty may exist. But my model seeks to explain outcomes when there are sufficient levels of task certainty—and there are opportunities to push out the tradeoff frontier—such that exposure to both risks are reduced (Tetlock & Mellers, 2011a).

**ORGANIZATIONAL CULTURAL SYSTEMS, REGULATORY FOCUS, AND VULNERABILITIES TO CONFORMITY AND DEVIATION BIASES**

There are many dimensions along which organizational cultures can be distinguished (Hofstede et al., 1990). But scholars have argued that one major dimension along which cultural systems in organizations can be differentiated is collectivism vs. individualism (Chatman & Jehn, 1994; Earley, 1993). A number of studies have examined the effects of collectivist vs. individualist cultural systems on a variety of work processes and outcomes in organizations particularly relevant to issues of conformity
and deviation (e.g., Chatman & Barsade, 1995; Chatman, Polzer, Barsade, & Neale, 1998; Goncalo & Staw, 2006). In collectivist cultural systems, employees view themselves as interdependent with others—and are motivated by their obligations to each other (Wagner, 1995). By contrast, in individualist cultural systems, employees view themselves as independent of others—and are motivated by their own attitudes and preferences (Chatman et al., 1998).

However, the collectivism-individualism dimension is not without its critics. Some have argued that the dimension conflates important differences among types of collectivist systems and types of individualist systems (e.g., Chen, Meindl, & Hunt, 1997; Schwartz, 1990; Vandello & Cohen, 1999). Note that these criticisms are in reference to collectivist and individualist systems at the national or societal level of analysis—not at the organizational level. But these criticisms have implications for collectivist and individualist systems at the organizational level. Indeed the collectivist-individualist dimension for organizational cultures was inspired by research on national cultures (e.g., Hofstede, 1980). Organizational scholars argued that the same cultural patterns at the national level can also emerge at the level of more local, discrete social units such as firms (Chatman & Jehn, 1994). In other words, they argued that cultural frames are malleable—and can be primed by more immediate situational influences (Brockner, 2003).

As such, criticisms of the collectivism-individualism at the national level may also indicate analogous limitations of the construct at the organizational level. To correct for these limitations, I draw on a cultural framework advanced by Triandis and colleagues (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995; Triandis & Gelfand, 1998). Again, this framework explains differences among national cultures. However, given that cultural frames are malleable and organizations can assume similar cultural patterns
(Goncalo & Staw, 2006; Oyserman, Coon, & Kemmelmeier, 2002), I apply this framework to the organizational level.

Triandis and colleagues argue that in addition to the collectivism-individualism dimension, cultures can be further distinguished along a horizontal-vertical dimension (Triandis, Chen, & Chan, 1998). Whereas the collectivism-individualism dimension captures differences in interdependence, the horizontal-vertical dimension captures differences in tolerance of hierarchies (Markus & Kitayama, 1991; Shavitt, Lalwani, Zhang, & Torelli, 2006). Simply, horizontal cultures are less tolerant of hierarchies than are vertical cultures. Of course, a variety of social hierarchies can emerge in organizations (e.g., Magee & Galinsky, 2008). For the sake of theoretical precision, I focus on hierarchies created by the distribution of resources. Distributive principles are one indicator of horizontal or vertical tendencies—or the degree to which an organization does or does not tolerate hierarchies (Deutsch, 1985; Erez, 1997; Kabanoff, Waldensee, & Cohen, 1995). There are two prominent principles that guide resource distribution: egalitarian vs. meritocratic (Wageman & Gordon, 2005). More egalitarian organizations distribute rewards equally with no differentiation among individuals—and are thus hierarchy-attenuating. More meritocratic organizations distribute rewards in proportion to inputs (i.e., equitably) with much differentiation among individuals—and are thus hierarchy-enhancing (Castilla & Benard, 2010).

Crossing these two dimensions yields four different types of organizational cultural systems: egalitarian-collectivist, egalitarian-individualist, meritocratic-collectivist, and meritocratic-individualist. In the following sections, I explain how these different types of cultural systems trigger different types of self-regulatory schemas—and how these self-regulatory schemas in turn shape vulnerabilities to conformity and deviation biases. Self-regulatory schemas constitute a fundamental element of human
motivation (Shah, Higgins, & Friedman, 1998). They refer to the different pathways people take to achieve different end goals (Brockner & Higgins, 2001). There are two basic self-regulatory states: prevention and promotion (Higgins, 1997, 1998). Prevention states are characterized by loss-avoidance, vigilance, risk aversion, and a focus on duties and obligations. Promotion states are characterized by gain-maximization, eagerness, risk seeking, and a focus on hopes and aspirations.

My model appears in Figure 1.

Organizational Cultural Systems and Regulatory Schemas

Egalitarian-collectivist systems. The collectivist component of egalitarian-collectivist systems emphasizes interdependence and communal relationships (Markus & Kitayama, 1991; Triandis, 1995). People in collectivist systems are primarily concerned with impression management: saving face, avoiding social disapproval, and adjusting to normative constraints (Gelfand, Erez, & Aycan, 2007; Lalwani, Shrum, & Chiu, 2009; Triandis & Suh, 2002). In other words, they are strongly driven by the need to fit in and behave in socially-sanctioned ways (Crowne & Marlowe, 1964; Van Baaren, Holland, Steenaert, & van Knippenberg, 2003). To fulfill this need, they are highly attentive to negative information about the self—and use this information to avoid future social mishaps (Heine & Lehman, 1999; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). Furthermore, when people view themselves as interdependent, the ought-self becomes more prominent—they regulate to others’, as opposed to their own, standards of behavior (Cross, Morris, & Gore, 2002).

For these reasons, researchers have found close links between interdependent cultural systems and prevention, avoidance-oriented schemas (Lee, Aaker, & Gardner, 2000). People in collectivist systems are essentially preoccupied with avoiding “rocking the boat.” Some of the prevention-focused behaviors that these people tend to exhibit
include: being more sensitive to failure-avoidance events (not losing) than success-foregone events (not winning) (Lee et al., 2000), pursuing more avoidance goals (Elliot, Chirkov, Kim, & Sheldon, 2001), striving more to minimize potential losses than maximize potential gains (Hamilton & Biehal, 2005; but see Hsee & Weber, 1999, for boundary conditions), and being inspired by role models who convey the importance of avoiding failures (Lockwood, Marshall, & Sadler, 2005).

Egalitarian systems, the other component of egalitarian-collectivist cultures, also emphasize inclusion and shared membership (Wageman & Gordon, 2005). Egalitarian organizations often utilize profit and gain sharing, fringe benefits, and other schemes that compress salary differentials (Erez, 1997; Triandis, 2001). In egalitarian environments, people value benevolence, universalism, and harmony over power and achievement (Erez & Earley, 1987; Oishi, Schimmack, Diener, & Suh, 1998; Schwartz & Bilsky, 1987). As such, they tend to adopt prevention focused mindsets, focusing on avoiding conflict, standing out from others, or causing harm to solidarity goals (Cutcher-Gershenfeld & Kochan, 1997; Kabanoff et al., 1995; Meindl, 1989). The priming of prevention mindsets is perhaps one reason why researchers have found that people in egalitarian systems are less likely to engage in risky activities such as thinking outside the box (Goncalo & Kim, 2010; Wageman & Gordon, 2005)—or yielding to minority viewpoints (Ng & Van Dyne, 2001).

In sum, both components of egalitarian-cultural systems are likely to trigger prevention focused mindsets among employees:

**Proposition 1:** Employees are more likely to adopt predominantly prevention focused mindsets in organizations with egalitarian-collectivist cultural systems.

**Meritocratic-individualist systems.** Meritocratic-individualist organizations embrace the mirror-image set of values and beliefs. The individualist component of
meritocratic-individualist systems emphasizes independence and distinction (Markus & Kitayama, 1991; Triandis, 1995). Because they are focused on being positively distinct, people in individualist systems are concerned with self-enhancement goals—and strive to present themselves as self-reliant and skillful (Lalwani & Shavitt, 2009). As a result, they tend to exhibit many egocentric biases in self-appraisals (Heine, Lehman, Markus, & Kitayama, 1999). For example, they are unrealistically optimistic about their invulnerability compared to that of others (Heine & Lehman, 1995), rate themselves as above average on a variety of personal attributes (Chang, Asakawa, & Sanna, 2001), and make self-serving attributions to justify their behaviors (Mezulis, Abramson, Hyde, & Hankin, 2004).

For people in individualist systems, this preoccupation with distinguishing oneself also translates into a strong focus on maximizing potential gains in various situations (Lalwani et al., 2009). They are focused on proving their unique abilities. As such, researchers have found a positive link between independent cultural systems and promotion schemas. In addition to maximizing potential gains (Hamilton & Biehal, 2005), people in individualist systems are more sensitive to success-foregone events (not winning) than failure-avoidance events (not losing) (Lee et al., 2000) and are more motivated by success vs. failure feedback (Heine et al., 2001).

The meritocratic component of meritocratic-individualist cultural systems also triggers promotion states. Equity-based systems essentially incentivize people to compete for rewards, power, and influence (Erez, 1997). Employees under these systems not only want to be distinct—they want to be the best (Triandis & Gelfand, 1998). To reap the benefits of meritocratic systems, people want to develop superior expertise relative to others, demonstrate their unique abilities, and gain public recognition of their individual achievements (Galbraith, 1971; Mintzberg, 1984). As such, people under meritocratic
systems are likely to adopt promotion focused mindsets to maximize their potential for gains—and show little loyalty to the status quo. For example, people operating under competitive, equity-based systems tend to embark on more gains-oriented, risky initiatives such as challenging established decision practices (Arkes et al., 1986) or thinking outside the box (Baer, Leenders, Oldham, & Vadera, 2010; Gordon, Welch, Offringa, & Katz, 2000; Wageman & Gordon, 2005).

*Proposition 2: Employees are more likely to adopt predominantly promotion focused mindsets in organizations with meritocratic-individualist cultural systems.*

**Egalitarian-individualist and meritocratic-collectivist systems.**

Whereas egalitarian-collectivist and meritocratic-individualist cultural systems push employees into predominantly prevention focused or promotion focused zones, respectively, egalitarian-individualist and meritocratic-collectivist systems trigger clashing prevention and promotion regulatory states. In egalitarian-individualist systems, the egalitarian component triggers prevention states and the individualist component, promotion states. In meritocratic-collectivist systems, the meritocratic component triggers promotion states and the collectivist component, prevention states.

*Kaizen* in Toyota’s Production System provides an example of an egalitarian-individualist system. Egalitarianism is promoted vis-à-vis gain-sharing systems that “reward all workers for improvements in plant-wide quality and efficiency” (Adler, Goldoftas, & Levine, 1999: 53). But the egalitarian system is embedded in an individualist value system in which employees are encouraged and challenged to improve work processes utilizing their unique skills and capabilities (MacDuffie, 1995). This incongruous configuration is perhaps one reason why the organization as a whole is able to achieve continuous improvement such that it is able to strike a balance between efficiency and flexibility (Adler et al., 2009).
On the other end, brainstorming sessions at IDEO serve as an example of a meritocratic-collectivist system. These sessions are meritocratic “status auctions” in which design engineers strive to increase their standing on the technical hierarchy by pitching creative ideas on which other designers are able to build their ideas (Sutton & Hargadon, 1996). But the meritocratic system is embedded in a collectivist culture characterized by interdependent information sharing and collaborative helping in which engineers try to enhance each other’s projects (Amabile, Fisher, & Pillemer, 2014). Design engineers in these brainstorming sessions “go out of their way to help one another...[and] respect each other’s skills” (Sutton & Hargadon, 1996: 706).

Research suggests that when contexts prime different psychological states, people shift into high-cognitive gear to resolve the contradictions (Schwarz, 1990). That is, they think more flexibly—and shift between the psychological states that are primed. For example, when people experience conflicting negative and positive emotions, they tend to draw unusual connections between competing elements in their environments to decrease the conflict (Fong, 2006). People exhibit similar behaviors when confronted with paradoxical cognitive frames that cause conflict; they flexibly consider both competing elements to resolve the conflict (Miron-Spektor et al., 2011b). Additionally, when people are caught in “accountability cross-fire,” or are accountable to opposing constituencies, they exhibit more integratively complex thought processes (Green, Visser, & Tetlock, 2000). They shift between differentiating two opposing sets of ideas and looking for ways to balance the competing concerns.

Based on this discussion, I propose:

Proposition 3: Employees are likely to flexibly shift between prevention and promotion focused states when operating in organizations with (a) egalitarian-individualist or (b) meritocratic-collectivist cultural systems.
Regulatory Schemas and Vulnerabilities to Conformity and Deviation Biases

Regulatory schemas affect employees’ vulnerabilities to conformity and deviation biases in at least three different ways. First, regulatory schemas affect the degree to which employees are willing to take risks. Prevention focused individuals tend to be more risk averse (Zhang & Mittal, 2007). Risk-aversion, in turn, is often linked to the conservation of accrued gains (Jackson & Dutton, 1988; Kahneman & Tversky, 1979)—and is one reason why employees tend to conform to the status quo in organizations. For example, risk-aversion has been linked to reduced proactivity—or behaviors that involve bringing about change to current practices and methods (Grant & Ashford, 2008). Employees who engage in proactive initiatives risk threatening supervisor authority or suffering serious repercussions if these initiatives result in negative outcomes (Frese & Fay, 2001; Parker, Bindl, & Strauss, 2010). Prevention-focused employees are thus likely to be especially vulnerable to conformity biases.

By contrast, promotion focused individuals are more risk-seeking—and risk-seeking has been linked to tendencies to overturn the status quo (even to a point of detriment). For instance, strong propensities to take risks can cause people to engage in chaotic change initiatives (Bunderson & Sutcliffe, 2003; March & Shapira, 1987). During these times of chaotic change, employees are unable to discriminate effective from ineffective change (March & Olsen, 1976)—or understand causal relationships in a way that meaningfully incorporates feedback from the changes being made (Weick, 1984). Thus, promotion-focused employees are likely to be especially vulnerable to deviation biases.

Second, regulatory schemas affect the degree to which employees are motivated to engage in extensive hypothesis generation as they go about making decisions. Employees with a prevention focus are motivated to generate fewer hypotheses or
courses of action whereas those with a promotion focus are motivated to generate multiple hypotheses or courses of action (Crowe & Higgins, 1997; Liberman, Molden, Idson, & Higgins, 2001; Molden & Higgins, 2008; Woolley, 2011). The degree to which people restrict hypothesis generation affects their tendencies to conform to or deviate from the status quo. Because the status quo has been tried-and-tested and offers security, managers who are motivated to restrict hypothesis generation often adopt the status quo—and fail to consider options that challenge current ways of thinking (Nijstad & De Dreu, 2012; Staw, Sandelands, & Dutton, 1981). However, managers who are motivated to increase hypothesis generation are likelier to challenge the status quo in search of better outcomes (Heath, Larrick, & Klayman, 1998; Nisbett, Zukier, & Lemley, 1981; Tetlock & Boettger, 1989).

Third, regulatory schemas affect the degree to which employees are overconfident and optimistic. Generally, prevention schemas are linked to under-confidence and pessimism whereas promotion schemas are linked to over-confidence and optimism (Grant & Higgins, 2003; Hazlett, Molden, & Sackett, 2011; Semin, Higgins, de Montes, Estourget, & Valencia, 2005). People’s level of confidence affects their propensities to conform or deviate by shaping their sense of control. People who are under-confident and pessimistic tend to perceive low levels of control—and those who are over-confident and optimistic tend to perceive high, sometimes delusional, levels of control—over their environments (Kahneman & Renshon, 2007). Proactivity researchers have long argued that perceived control over one’s environment is one predictor of why some people more so than others are likely to challenge the status quo (Grant & Ashford, 2008; Parker & Sprigg, 1999). The less people feel in control of their environments, the less likely they are to challenge the status quo—and the more they feel in control, the more likely they are to challenge the status quo (Bell & Staw, 1989).
In sum, different regulatory schemas trigger different motivations: either the motivation for stability or the motivation for change (Kluger, Stephan, Ganzach, & Hershkovitz, 2004; Van-Dijk & Kluger, 2004). Prevention-focused individuals are more concerned with ensuring their safety and security—and are thus more sensitive to negative deviations from the status quo (differences between “0” and “-1”) (Herzenstein, Posavac, & Brakus, 2007; Higgins & Tykocinski, 1992). They would rather persist with nonnegative, satisfactory current states than risk shifting from the status quo and incurring losses (Chernev, 2004; Crowe & Higgins, 1997; Liberman, Idson, Camacho, & Higgins, 1999). Thus, employees who approach their decisions predominantly through prevention schemas are likelier to exhibit strong preferences to reinforce the status quo. Promotion-focused individuals are more concerned with searching for better possibilities and opportunities—and are thus more sensitive to positive deviations from the status quo (differences between “0” and “+1”) (Higgins, 2008). They are more willing to take risks to maximize and enhance current states (Zhang & Mittal, 2007). And the upside gains of challenging the status quo loom larger than the downside risks of doing so (Crowe & Higgins, 1997). Thus, employees who approach their decisions predominantly through promotion schemas are likelier to exhibit strong preferences to reject the status quo.

**Proposition 4:** Employees who are predominantly prevention focused are more vulnerable to the risks of conformity biases.

**Proposition 5:** Employees who are predominantly promotion focused are more vulnerable to the risks of deviation biases.

Propositions 4 and 5 inherently imply that regulatory schemas offset the risks of the opposing biases. That is, prevention states tamp down the risks of deviation biases and promotion states tamp down the risks of conformity biases (Scholer & Higgins,
Prevention states preclude employees from inappropriately challenging the status quo and promotion states preclude employees from inappropriately conforming to the status quo. So employees who flexibly shift between prevention and promotion focused mindsets (as I predicted would occur under egalitarian-individualist and meritocratic-collectivist systems) are essentially equipped to achieve an optimal level of self-regulation: the advantages of each regulatory schema offset the disadvantages of the other (Rosenzweig, 2014; Scholer & Higgins, 2012).

What makes shifting between prevention and promotion states “optimal”? Research demonstrates that regulatory schemas fundamentally shape how we process our information worlds (Trope & Liberman, 2010). The more prevention focused we are, the more we process our environments concretely; we focus on the “trees” or low-level, micro details and obstacles (Friedman & Förster, 2001; Lee & Higgins, 2009). Focusing on the concrete enables prevention focused individuals to achieve their goal of being vigilant—i.e., it enables them to reduce any potential for losses (Förster & Higgins, 2005). But the more people focus on the concrete, the more vigilant and risk-averse they become (Liberman et al., 1999). They thus fall into the trap of being overly sensitive to the costs of change and overly insensitive to the costs of stability—and are likely to exhibit tendencies to maintain the status quo.

The opposite is true for promotion states. The more promotion focused we are, the more we process our environments abstractly; we focus on the “forest” or high-level, macro aspects and big picture (Semin et al., 2005). Focusing on the abstract enables promotion focused individuals to achieve their goal of growth—i.e., it enables them to not be bogged down by the details and look for ways to achieve advancement. But the more people focus on the abstract, the more eager and risk-seeking they become (Henderson, Trope, & Carnevale, 2006). They thus fall into the trap of being overly
sensitive to the costs of stability and overly insensitive to the costs of change—and are likely to exhibit tendencies to reject the status quo (Liberman et al., 2001).

However, people who fluidly shift between prevention and promotion states iterate between concrete and abstract processing modes. That is, they see how the concrete details fit into the abstract big picture—and how the abstract big picture puts the small details into context. For example, advertising executives who iterate between the concrete and abstract see how the concrete details of their advertisements (e.g., the actors they hire, the colors they use) help them satisfy global consumer demands—and how satisfying global consumer demands shapes how they should go about implementing the concrete details of their advertisements. As people iterate between the concrete and abstract, they also shift between prevention and promotion regulatory states, exacerbating or attenuating preferences for stability and change. Thus, people who shift between concrete and abstract processing modes—primed by shifts between prevention and promotion states—are uniquely positioned to explicitly wrestle with the pros and cons of conforming to or deviating from the status quo (Scholer & Higgins, 2012). As such, compared to employees who fixate on either prevention or promotion states and on either the pros or cons of stability or change, employees who fluctuate between the regulatory states are better enabled to reduce the risks of both conformity and deviation biases.

*Proposition 6: Employees who flexibly shift between prevention and promotion focused states are likely to simultaneously bring down the risks of both conformity and deviation biases.*

**THE SELF-REINFORCING NATURE OF EGALITARIAN-COLLECTIVIST AND MERITOCRATIC-INDIVIDUALIST SYSTEMS IN ORGANIZATIONS**
Egalitarian-collectivist and meritocratic-individualist cultural systems are congruent: they trigger the same psychological state. I argued that these congruent systems would either increase vulnerabilities to conformity biases—or deviation biases. However, incongruent cultural systems that trigger clashing states—egalitarian-individualist or meritocratic-collectivist—would enable employees to bring down the risks of both biases to the degree possible. But, to what extent are egalitarian-individualist or meritocratic-collectivist systems likely to be sustained in organizations? I argue that that the likelihood is low—and that there are strong social forces that push organizations towards congruity. Drawing on notions that social forces are bidirectional (Deutsch, 1985), I examine how collectivist-individualist systems are likely to give rise to their congruent egalitarian-meritocratic complements—and vice versa. As I will discuss in the last section of this article, the propositions that follow raise a number of interesting areas for future work on how incongruity, given its potential benefits, can be sustained over time.

**Collectivist/Individualist Systems ➔ Egalitarian/Meritocratic Systems**

There are at least three different ways in which collectivist and individualist cultural systems shape the degree to which organizational administrators under these systems prefer implementing egalitarian vs. meritocratic distributive systems. First, collectivist and individualist systems affect the extent to which people believe one or the other distributive system is fundamentally fair. People in collectivist systems are more likely to attribute responsibility to external, uncontrollable causes (e.g., luck or chance) (Choi, Nisbett, & Norenzayan, 1999). And those who make external attributions are more sensitive to penalizing others for things outside their control. As such, research suggests that people who make external attributions prefer allocating resources in more
egalitarian ways (Mitchell, Tetlock, Mellers, & Ordonez, 1993). In their eyes, meritocratic systems may unfairly disadvantage people who suffer from bad luck.

By contrast, people in individualist systems adopt a more “Protestant work ethic” perspective—and see successes and failures as tightly coupled with effort, hard work, and other controllable causes (Miller, 1984; Morris & Peng, 1994; Newman, 1993). People who make internal attributions lean in the opposite direction: they are more sensitive to failing to reward people for achieving above and beyond. Thus, people who make internal attributions tend to prefer more meritocratic ways of distributing rewards (Skitka & Tetlock, 1992). In their eyes, egalitarian systems unfairly disadvantage people who simply contributed more—and fail to motivate effort among those who contribute less.

Second, collectivist and individualist systems affect the tradeoffs that people make between social harmony and productivity (Triandis, 1995), and tradeoffs in social harmony and productivity consequently shape distribution strategies (Deutsch, 1975; Meindl, 1989). For people in collectivist systems, solidarity and reducing conflict take center stage—and they are willing to trade off productivity (Casciaro & Lobo, 2005; Fiedler, 1967; Hofstede, 1980). Too much differentiation of rewards is likely to increase social conflict among people. Thus, to reduce this potential for conflict, people in collectivist systems are likely to prefer egalitarian systems (Bond, Leung, & Wan, 1982). But people in individualist systems are more concerned with increasing productivity—and more willing to trade off social harmony (Triandis et al., 1998). They are therefore more attuned to individual accomplishments—and prefer to utilize meritocratic systems to reward those who accomplish a lot and penalize those who accomplish little (Kim, Park, & Suzuki, 1990).
Third, collectivist and individualist systems affect the degree to which people are generous in their evaluations of others. Researchers have shown that people in collectivist systems are, on average, more generous than those in individualist systems (assuming the targets of evaluation are in their in-group, Gómez, Kirkman, & Shapiro, 2000). In collectivist systems, people want to foster relationships over the long-term—and see more benefits in evaluating people in a positive light (Hui, Triandis, & Yee, 1991). By contrast, for people in individualist systems, these concerns of nurturing long-term relationships are fairly negligible. Generosity in evaluations may, in turn, shape distributive structures. Because of their generosity, organizational administrators in collectivist systems are less likely to discriminate among people—i.e., their evaluations and subsequent allocation of rewards are likely to cluster together. However, organizational administrators in individualist systems are more likely to discriminate among people, naturally giving rise to a more hierarchal reward structure

*Proposition 7a:* Organizational administrators who operate in organizations with collectivist systems are likely to implement more egalitarian distributive systems.

*Proposition 7b:* Organizational administrators who operate in organizations with individualist systems are likely to implement more meritocratic distributive systems.

**Egalitarian/Meritocratic Systems → Collectivist/Individualist Systems**

How organizations distribute rewards can also shape whether employees exhibit more collectivist or individualist behaviors and values, which consequently give rise to broader collectivist or individualist systems in the organization (Schneider, Goldstein, & Smith, 1995). Employees in egalitarian systems are inherently undifferentiated in terms of power. That is, one is not more dependent on the other for resources (Pfeffer, 1981b). When there are equal power relations, people tend to develop reciprocity norms: “each party’s contributions are tied to those of the other party’s” (Kabanoff, 1991: 423). In
reciprocity relationships, people tend to give back what they receive in order to retain a balance between the parties (Deutsch, 1985). As Kabanoff (1991) argues, people in reciprocity relationships may disagree about many issues such as how joint resources should be allocated toward completing tasks. But, for the most part, these disagreements occur within a relationship in which the parties value cohesiveness, pursue goals jointly, and work together rather than withdraw from the relationship to remedy sources of conflict (Pfeffer & Langton, 1988). All these attributes are reflective of more collectivist tendencies, suggesting that more collectivist systems of norms are likelier to arise from egalitarian systems.

The opposite occurs in meritocratic systems. Unequal distribution of rewards inherently begets unequal distribution of power. Much research on power hierarchies suggests that high relative power triggers a variety of different psychological processes and behaviors (Keltner, Gruenfeld, & Anderson, 2003; Magee & Galinsky, 2008). [Note I focus on people at the top of the power hierarchy because they are the ones who are the most influential in shaping the norms that emerge in organizations (Hollander, 1958)]. For one, people with greater power exert their independence from others, especially their subordinates—and, for better or worse, are more self-reliant (Kipnis, 1972). Additionally, people with greater power are likely to express their personal opinions (Anderson & Berdahl, 2002)—and are unfazed when others do the same (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008). Finally, power reduces the attention that people pay to other’s contributions (Kipnis, 1976), perspectives (Galinsky, Magee, Inesi, & Gruenfeld, 2006), and overall emotions and thoughts (Overbeck & Park, 2006). Powerful people do this, though, only to the extent that others are not useful for achieving their goals. When people are useful, powerful managers attend to them quite closely (Gruenfeld, Inesi, Magee, & Galinsky, 2008; Overbeck & Park, 2001). Thus, the relationships here are
instrumental: others are viewed merely as a means to an end. Overall, the behaviors that managers exhibit in meritocratic systems are self-focused, exchange-oriented, and individualistic. And these individualistic norms at the top are likely to trickle down to the rest of the organization (Magee & Galinsky, 2008).

Proposition 8a: Employees who operate in organizations with egalitarian distributive systems are likely to give rise to more collectivist systems.

Proposition 8b: Employees who operate in organizations with meritocratic distributive systems are likely to give rise to more individualist systems.

DISCUSSION

My objective in this chapter was to examine how different types of work contexts exacerbate or attenuate the risks of conformity and deviation biases. I argued that whereas congruent cultural systems (egalitarian-collectivist and meritocratic-individualist) are likely to exacerbate vulnerabilities to the risk of either bias, incongruent cultural systems (egalitarian-individualist and meritocratic-collectivist) better enable employees to bring down the risks of both biases. Congruent systems position individuals at either end of a prevention-promotion continuum but incongruent systems prime individuals to flexibly shift between the regulatory states. Shifting between the regulatory states, in turn, tamps down the risks associated with gravitating towards either extreme. But I also argued that strong socio-normative forces strain organizations towards congruent systems that exacerbate vulnerabilities to one bias or the other.

As I noted at the onset, micro organizational behavior scholars to date have predominantly focused on reducing conformity biases while slighting the risks of deviation biases. In this vein, my theoretical framework provides a more balanced dialectic of the types of risks employees are exposed to in organizations. My framework
also contributes to a number of diverse literatures that span the micro-to-macro continuum—and leads researchers to a number of rewarding areas for future work.

**Theoretical Contributions**

**Systemic incongruity.** Organizational psychologists have typically argued that work environments enhance individual-level performance when they are congruent—or send consistent signals about what behaviors are encouraged or discouraged. These work structures include norms, reward schemes, goals, training, and other managerial policies (Lee et al., 2004). For example, researchers have found that individuals perform better when their groups’ goal-setting strategies align with the groups’ socio-cultural values (Erez, 1986), training methods match cultural systems (Earley, 1994), management practices are consistent with broader cultural syndromes (Newman & Nollen, 1996), types of goals and feedback match the structure and demands of the task (Saavedra, Earley, & Van Dyne, 1993), and normative values mesh with rewards in high-accountability organizations (Lee et al., 2004). Additionally, scholars examining the efficacy of single managerial practices—as opposed to combinations of managerial practices—have advocated for congruency. For instance, researchers studying goal-setting have found that goal conflict decreases performance (Erez, Gopher, & Arazi, 1990; Locke, Smith, Erez, Chah, & Schaffer, 1994)—and so do hybrid individual and group reward structures (Quigley, Tesluk, Locke, & Bortol, 2007; Wageman, 1995).

There have been a number of reasons advanced to explain why incongruent systems that send different cues result in poorer performance. First, incongruity engenders uncertainty and ambiguity about what is being rewarded or encouraged. Such uncertainty puts people in a bind (Argyris, 1982), decreasing their motivation to perform well (Vroom, 1964) and increasing their perception of unfairness (Lind & Tyler, 1988; Tetlock, 1999). Uncertainty can also induce performance-debilitating levels of tension
and anxiety (Argyris, 1990; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Leiter & Maslach, 1988). Second, incongruity often places employees in contexts that clash with their values, which decreases feelings of control and satisfaction (O'Reilly et al., 1991). Third, incongruity stretches people’s limited cognitive resources. As such, people tend to focus their attention on only one goal or objective when confronted with inconsistent signals (Barnes, Hollenbeck, Jundt, DeRue, & Harmon, 2011).

Macro scholars have also argued that congruity—or fit and similarity among organizational elements and strategy—is beneficial in enhancing performance at the organizational level of analysis (e.g., Kotter, 1980; Nadler & Tushman, 1980; Quinn & Hall, 1983). These scholars argue that incongruity can cause significant stresses and strains in the organization that dampen its ability to meet organizational goals (Roberts, 2004), and sometimes even increases the hazards of organizational mortality (Hannan, Pólos, & Carroll, 2003).

My model does not necessarily challenge these macro theories; it qualifies them. If strategic decision makers (i.e., those who make the organizational design decisions) assess that the environment is particularly punitive towards conformity biases and are tolerant of incurring the risks of deviation biases, congruent meritocratic-individualist systems are perhaps the most beneficial. If strategic decision makers assess that the environment is particularly punitive towards deviation biases and are tolerant of incurring the risks of conformity biases, congruent egalitarian-collectivist systems are perhaps the most beneficial. However, to the extent that strategic decision makers cannot assess which bias the environment is more punitive towards—and are not willing to tolerate the risks of either bias—incongruent systems now become beneficial. Incongruity prevents employees from erring too much in one direction or the other.
But my model does fundamentally challenge the more micro, psychological work on the debilitating effects of incongruity. Contrary to many micro scholars who argue that consistency and congruity is beneficial, I argue that incongruity can be beneficial in the instances noted above at the individual level. In this vein, my model falls in step with recent macro work on the benefits of inconsistent formal and informal organizational structures in increasing organizational ambidexterity (e.g., Gulati & Puranam, 2009). Of course, given the vast research that incongruity can be debilitating for individuals, the question that now remains is which types of individuals thrive or freeze under incongruity and which conditions enhance or debilitate the benefits of incongruity. I did note that the benefits of incongruity are likely to accrue in conditions under which there exists enough task certainty such that the tradeoff frontier can be pushed out (boundary conditions). But there certainly may be other considerations, and I return to this issue in the Future Directions section.

My model also draws closer attention to what constitutes managerial or employee “performance” in organizational behavior research. Many of the studies I cited, which advocate the benefits of congruity, adopt a generic conceptualization of task performance. My model adopts a more specific conceptualization of performance: the balance of opposing sets of risks. This reconceptualization has the advantages of capturing an important aspect of performance—balancing opposing risks are a fundamental problem of organizational life at all levels of analysis (Smith & Lewis, 2011).

**Organizational culture and regulatory focus.** My model also makes more specific contributions to the literatures on which it draws: organizational culture and regulatory focus. In the organizational culture literature, many scholars have noted that understanding how normative systems develop in organizations is deeply important—but grossly under-theorized (e.g., Ehrhart & Naumann, 2004; Grant & Patil, 2012; Heath
Whereas researchers have typically focused on the consequences of norms—e.g., the consequences of collectivist-individualist systems (Chatman & Barsade, 1995) or equality-equity distributive systems (Goncalo & Kim, 2010), my discussion on how collectivist-individualist systems give rise to egalitarian-meritocratic systems—and vice versa—provides fresh insights into how cultural elements emerge in organizations (in congruent ways).

Additionally, most organizational psychologists to date have utilized the collectivist-individualist dimension to examine cultural differences in organizations (e.g., Chatman & Jehn, 1994; Earley & Gibson, 1998; Wagner, 1995). But integration of the horizontal-vertical dimension has been quite limited. The horizontal-vertical dimension has been largely restricted to cross-border studies that examine cultural differences at the national level (e.g., Bhagat, Kedia, Harveston, & Triandis, 2002). This oversight is unfortunate given the number of critics who have drawn attention to the limits of the collectivism-individualism construct (Schwartz, 1990)—and the number of scholars who have drawn attention to the benefits of the horizontal-vertical dimension in enhancing the precision of the construct (Triandis & Gelfand, 1998).

By importing the horizontal-vertical dimension to explain cultural differences at the organizational level, I have contributed in two significant ways. First, “camps” of scholars have emerged with some scholars supporting the organizational benefits of collectivist systems (e.g., Chatman et al., 1998; Kaplan, Brooks-Shesler, King, & Zaccaro, 2009; Wagner, 1995) and others supporting the organizational benefits of individualist systems (e.g., Goncalo & Staw, 2006; Kanter, 1988; Sutton, 2002a). Integrating work on egalitarian and meritocratic systems provides one means of reconciling these arguments. The downside risks of collectivist systems are likely to be further exacerbated under egalitarian systems but offset under meritocratic systems. And the downside risks of
individualist systems are likely to be further exacerbated under meritocratic systems but offset under egalitarian systems. Second, the integration of the horizontal-vertical dimension increased the precision by which different types of cultural systems can be distinguished in organizations. And perhaps most importantly, I have drawn important theoretical links between these four types of cultural systems and an important puzzle in organizational life: balancing the risks of conformity and deviation biases.

For research on regulatory focus, my model sheds light on how situational factors restrict—or enable—employees to shift between prevention and promotion states. Social psychologists have previously argued that (a) both prevention and promotion regulatory states have their downside risks, and (b) placing situational constraints on these states optimizes self-regulation and performance (Higgins, 2011). But we know little about the types of situational variables that can constrain individuals. Scholer and Higgins (2012: 79) state, “Exploring what factors...within environments make it more or less likely that the dual strength of the systems can be utilized is an important question that remains to be explored.” I take a step towards filling this gap by directly examining how different types of organizational cultural systems trigger different types of regulatory responses.

**Identity construction: Optimal distinctiveness.** Furthermore, my model contributes to issues of identity construction in organizations. Researchers argue that people strive for “optimal distinctiveness”—or aim to construct identities that allow them to simultaneously express their sense of distinctiveness and sense of assimilation (Brewer, 1991; Hornsey & Jetten, 2004; Lee & Tiedens, 2001). When people feel that they are too distinct—or too assimilated—they tend to disengage from the groups in which they are embedded (Brewer, 1993; Sedikides & Brewer, 2001). But beyond group engagement, we have a very limited understanding of what organizations can do to
better enable employees to construct identities that strike a balance between assimilation and distinctiveness (Grant, 2007: 407).

My model provides new insights in this arena. Collectivist and individualist systems differ in the extent to which they fulfill needs for assimilation and distinctiveness, with collectivist systems fulfilling needs for assimilation and individualist systems, needs for distinctiveness (Brewer & Gardner, 1996). Cultural emphases on interdependence trigger collective identities in which people’s personal self is subsumed into a broader collective self, whereas cultural emphases on independence trigger individual identities that bolster people’s personal self (Gardner, Gabriel, & Lee, 1999). Egalitarian and meritocratic systems fulfill needs for assimilation and distinctiveness, respectively, in similar ways. Egalitarian systems are generally correlated with solidarity goals and meritocratic systems, personal goals (Chen, Meindl, & Hui, 1998; Deutsch, 1975; Mannix, Neale, & Northcraft, 1995).

Building on these findings, the framework presented here suggests that employees are more likely to achieve optimal distinctiveness in egalitarian-individualist and meritocratic-collectivist systems. These organizational cultures enable employees to construct identities that neither stray too far in the direction of fitting in—nor stray too far in the direction of standing out. The framework also broadens the study of the consequences of achieving optimal distinctiveness. Previous research has focused, for example, on the consequences of optimal distinctiveness for group membership (Hornsey & Jetten, 2004) and success of change initiatives (Meyerson & Scully, 1995). My framework implicitly proposes that optimal distinctiveness can enhance the ability of individuals to reduce the risks of conformity and deviation biases.

**Macro puzzles of balancing exploitation and exploration.** Macro scholars have called for organizational psychologists to examine how individual-level
decisions can translate into organizational-level outcomes in terms of striking a balance between exploitation and exploration (e.g., Gibson & Birkinshaw, 2004; Mom, Van Den Bosch, & Volberda, 2009; Smith & Tushman, 2005). Lavie et al. (2010: 143) state, “Future research may be needed at the individual...levels to uncover the underlying processes at different levels of analysis that support the balancing of exploration and exploitation.” This article answers this call in at least two fundamental ways.

First, it provides a base framework for understanding how work contexts shape individuals’ abilities to cope with competing pressures to conform or deviate. Successes or failures in coping with conformity and deviation across individuals can translate into successes or failures of organizations in coping with fluctuating external environments (Meyer, 1982; Nelson & Winter, 1982). Specifically, it can translate into determining the degree to which organizations change too much or too less when attempting to align themselves with external environment demands (Zajac, Kraatz, & Bresser, 2000).

Employees who exhibit conformity biases are likely to shift their organizations towards over-exploitation, or under-adaptation. Conformity biases across multiple employees within an organization dampens an organization’s pursuit of new practices and beliefs (Levinthal & March, 1993). On the other end, employees who exhibit deviation biases are likely to shift their organizations towards over-exploration, or over-adaptation. Deviation biases across multiple employees precludes organizations from stabilizing, refining, and implementing existing practices and beliefs (March, 1991). Given these assumptions, my model suggests that over-exploitation is likelier to occur in organizations with egalitarian-collectivist systems—and over-exploration in organizations with meritocratic-individualist systems. But organizations with egalitarian-individualist or meritocratic-collectivist systems are likely to more adeptly balance exploitation and exploration.
However, this being said, researchers have argued that strategic decision making at the individual level does not always have its intended benefits at the organizational level (e.g., Beer & Eisenstat, 2000; Martin, 2010). In this vein, future research would not only have to test the links between organization cultural systems and organizational exploitation-exploration but also examine possible impediments in translating individual-level behaviors to organizational-level outcomes. My model provides the theoretical foundations from the micro perspective so that researchers can begin to build these micro-to-macro links.

Second, some macro scholars have argued that the relationship between conformity and deviation biases is zero-sum or hydraulic at the individual level. These scholars argue that due to bounded rationality and experienced goal conflict (Simon, 1947), people can only sequentially allocate their attention to either reducing overt-exploitation or reducing overt-exploration (Levinthal & March, 1993). That is, they have argued that employees who reduce the risks of conformity biases automatically elevate the risks of deviation biases—and employees who reduce the risks of deviation biases automatically elevate the risks of conformity biases (Adler et al., 1999; Lavie et al., 2010). These propositions at the individual-level likely stem from general assumptions that exploitation-exploration tradeoffs are zero-sum at the organizational-level (however for a counterargument, see Farjoun, 2010). Because of this zero-sum relationship, organizations are thought to be able to balance exploitation and exploration through separation. For example, researchers have argued that organizations can achieve balance via three means of separation: organizational (separate work units dedicated to exploitation or exploration), temporal (sequential shifts between exploitation and exploration), and domain (exploiting in one domain and exploring in another) (Lavie et al., 2010).
I did note that the relationship between conformity and deviation risks at the individual level may be hydraulic when high degrees of uncertainty lurk in employees’ task environments. My model also implicitly posits that the risks are zero-sum in egalitarian-collectivist systems (employees tamp down the risks of deviation biases but are exposed to the risks of conformity biases)—and in meritocratic-individualist systems (employees tamp down the risks of conformity biases but are exposed to the risks of deviation biases). But I also challenge the assumption that these risks are always zero-sum; the risks are not necessarily zero-sum in the incongruent egalitarian-individualist and meritocratic-collectivist systems. Drawing from theories on regulatory focus (Scholer & Higgins, 2012), I predicted that employees would be able to simultaneously reduce both biases in these incongruent systems, given favorable task conditions. In essence, my model urges future researchers to examine when and to what degree employees can push out the conformity-deviation tradeoff function.

**Future Directions**

My model proposed that collectivist-individualist systems naturally beget their congruent egalitarian-meritocratic counterparts—and vice versa (Propositions 8 and 9). These propositions complement recurring themes that organizations tend to exhibit strong tendencies toward homogenization (e.g., Schneider, Smith, Taylor, & Fleenor, 1998). But these propositions do not account for why some organizations may break out of the self-reinforcing homogenization forces and embrace more complex strategies that satisfy competing demands (e.g., Gulati & Puranam, 2009; Wright & Snell, 1998). Indeed, my examples of kaizen in Toyota and IDEO serve as examples of real-world egalitarian-individualist and meritocratic-collectivist systems. The major question for future research concerns how and when incongruity can emerge and be sustained, such that the benefits of reducing both conformity and deviation biases are reaped.
For example, given that incongruity can be psychologically harmful and cognitively depleting (e.g., Lee et al., 2004; O'Reilly et al., 1991), future research may benefit from examining the sustainability and benefits of “punctuated incongruity”: long intervals of congruity punctuated by short bursts of incongruity. That is, organizations may shift to incongruent combinations when both risks are no longer tolerated. As punctuated incongruity inherently involves internal organizational change, there are at least three contingencies that may affect the sustainability and benefits of punctuated incongruity. First, and most basically, organizational change is costly (Nickerson & Zenger, 2002). There are up-front costs involved in planning the change—and transitional losses in productivity as the change is implemented (Kanter, 1983). So the benefits of punctuated incongruity will accrue only to the degree that the benefits outweigh their costs. Second, some systems may be easier to shift than others. Organizational theorists have argued that formal work structures (normative social systems) can be more rapidly changed than informal work structures (emerging patterns of social interactions) (Gulati & Puranam, 2009). To the extent that egalitarian vs. meritocratic distributive systems constitute more formal structures—and collectivist vs. individualist cultural systems, more informal structures—it may be easier for organizations to shift distributive systems to achieve short intervals of incongruity. Third, members of an organization are usually more receptive to change initiatives when the initiatives are seen as legitimate. Perceptions of legitimacy are enhanced when individuals see change initiatives as instrumental to achieving internalized goals, conducive to their social identities and self-worth, and consistent with their moral and ethical values (Tost, 2011).

Future research may also benefit from examining potential sources of resistance to implementing punctuated incongruity. For instance, the ideologies of strategic
decision makers may be a source of resistance. Researchers argue that ideologies play a vital role in simplifying decision-making in stochastic environments (Barley & Kunda, 1992)—and, more relevantly, can have powerful effects on the types of work structures and practices that strategic decision-makers prefer (Chin, Hambrick, & Trevino, 2013; Tetlock, 2000; Tetlock, Vieider, Patil, & Grant, 2013). In particular, we may be able to draw insights by examining political ideologies. Political ideologies are coherent sets of beliefs about how a collective should be structured (Tetlock et al., 2013).

In general, liberals tend to support structures that emphasize interdependence and equality (Haidt, 2007) whereas conservatives tend to support structures that emphasize independence and equity (Jost, Blount, Pfeffer, & Hunyady, 2003; Skitka & Tetlock, 1992). Therefore, we can expect liberal strategic decision makers to embrace egalitarian-collectivist systems and conservative decision makers, meritocratic-individualist systems. Furthermore, value-monistic liberals and conservatives are at risk of falling prey to motivated-reasoning effects (Kunda, 1999; Tetlock, 2005). That is, liberal and conservative decision makers are unlikely to respond to feedback that their favored structures are causing adverse effects by overturning their favored structures (Tetlock et al., 2013). Instead, they are likely to experience moral aversion to shifting to incongruous structures (Graham, Haidt, & Nosek, 2009), and instead attribute failures in their favored structures to external factors (Tetlock et al., 2013). Taken together, it is possible that liberal decision makers are more likely to bolster the self-reinforcing forces of egalitarian-collectivist systems and conservative decision makers, meritocratic-individualist systems. And their values are likely to prevent them from shifting to periods of punctuated incongruity, even in the face of feedback that egalitarian-collectivist systems are exacerbating the risks of conformity biases or meritocratic-individualist systems are exacerbating the risks of deviation biases.
However, strategic decision makers who hold more pluralistic ideologies—i.e., integratively complex mixes of liberal and conservative beliefs—may be more likely to break the self-reinforcing cycles and accommodate for periods of incongruity. Research suggests that people with more value pluralistic ideologies think in more cognitively complex ways, are self-critical, and more likely to resist motivating-reasoning effects (Tetlock, 1983b, 1989). Thus, these decision makers may see the value of meshing egalitarian systems with individualist cultures—or meritocratic systems with collectivist cultures. Additionally, strategic decision-makers with more value pluralistic ideologies may be more responsive to feedback that their employees are exhibiting strong tendencies in one direction or the other—and shift to periods of punctuated incongruity as necessary.

Finally, future research may benefit from examining the types of individuals who thrive and who freeze under periods of punctuated incongruity. For instance, individuals who strongly identify with their organizations—or internalize the organization’s values such that they become benchmarks for what defines appropriate behaviors (Ashforth & Mael, 1989)—are likely to be more receptive to changes from congruent to incongruent systems. Employees who are socially identified with their organizations typically see their organizational authorities as legitimate (Tyler, 1997), and therefore are less likely to resist change initiatives that are seen as benefiting the organization. Additionally, based on previous research, there may be dispositional factors that affect the degree to which individuals successfully cope with punctuated incongruity. As examples, individuals are likely to more successful cope when they have high tolerance for ambiguity (experience less anxiety in coping with contradictory demands, Budner, 1962), openness to experience (value intellectual curiosity, liberalism, and adventure, McCrae & Costa,
and integrative complexity (able to reconcile contradictory elements, Tetlock, Armor, & Peterson, 1994).

**Practical Implications**

My model offers at least three major practical implications. First, my model alerts practitioners to the types of organizational cultures and structures that may be more successful in realizing improvements in the current tradeoff function. Needless to say, we live in an uncertain world. Thus, practitioners who gravitate towards consistently and continuously implementing egalitarian-collectivist or meritocratic-individualist systems may be leaving money on the table. These cultural systems allow employees to fall into the mindset that the best they can do is increase one set of risks in exchange for reducing the other set of risks. In the event a better tradeoff function exists, this assumption becomes a self-fulfilling prophecy: employees do not attempt to reach a better tradeoff function simply because they do not expect to do so.

Second, my model draws practitioners’ attention to the strong socio-normative forces that reinforce egalitarian-collectivist and meritocratic-individualist systems within organizations—systems that impede employees from improving tradeoff functions. It is important that practitioners note these forces and actively search for ways to counteract them when incongruity is necessary. As I discussed, fundamental values may be causing resistance to incongruity.

Third, my model informs practitioners that they do not necessarily have to shy away from placing their employees in contexts that trigger clashing psychological states. Humans have a remarkable ability to creatively and complexly cope with contradictory demands. Of course, this statement is more true for some people more so than for others. But complexly coping with contradictory demands can bring benefits for the organization. To ensure that these potential benefits are reaped, practitioners may
benefit by ensuring that incongruity is implemented in short intervals, perceived as legitimate, and implemented for employees who are particularly likely to thrive under such conditions. Additionally, practitioners may benefit from deploying resources to help employees in incongruent structures to develop their cognitive abilities to discern how and when to shift between regulatory states. As indicated in my model, it is not sufficient to merely shift between regulatory states. Employees must be equipped with fine-tuned cognitive abilities to fully realize the benefits that shifting between regulatory states can have in bringing down the risks of conformity and deviation biases.
CHAPTER 2
BLENDING ACCOUNTABILITY AND CULTURAL SYSTEMS

Employees often have to decide whether to go with the status quo—or reject it (Morrison & Phelps, 1999; Nemeth & Staw, 1989; Sutcliffe & McNamara, 2001). The decision can be costly. Sometimes standard practices and beliefs are flawed and employees are better off relying on their unique insights (e.g., Burris, 2012; Mainemelis, 2010; Staw & Boettger, 1990). In these situations, conforming to the status quo prevents employees from flexibly coping with fluctuating task demands (Grant & Ashford, 2008; Griffin et al., 2007). But sometimes standard practices and beliefs are “wiser” than any one individual and employees are better off simply conforming (e.g., Bonabeau, 2009; Dean & Sharfman, 1993; Peterson & Nemeth, 1996). In these situations, searching for better practices that do not exist can actually decrease the quality and reliability of decisions (Hackman & Wageman, 1995; March & Simon, 1958).

It is therefore important for scholars to understand the types of work environments that exacerbate the risks of conformity or deviation biases—or enable employees to simultaneously reduce both risks. Unfortunately our knowledge in this area is quite limited. It is limited because for several decades, organizational behavior researchers have focused on studying work contexts that encourage behaviors such as proactivity (Parker & Collins, 2010), creativity (Amabile, 1996; Shalley, Zhou, & Oldham, 2004), creative deviance (Mainemelis, 2010), experimentation (Lee et al., 2004), and individual innovation (Scott & Bruce, 1994). All these behaviors involve reducing conformity biases (Grant & Ashford, 2008)—and in focusing near-exclusively on reducing conformity biases, organizational behavior scholars have lost sight of the risks of deviation biases and the question of how the opposing risks can be balanced in the
workplace. Consequently, the micro field has fallen behind its more macro counterpart which has long acknowledged that organizations have to balance the analogous risks of exploration and exploitation (Farjoun, 2010; Lavie et al., 2010; March, 1991).

To remedy this situation and strengthen our understanding of when and why individuals err in one direction or the other, I examine the interactive effects of two prevalent norm-enforcement systems in organizations: organizational culture and accountability. There are three reasons why I approach the focal question from this integrative perspective. First, research suggests that organizational culture (O'Reilly & Chatman, 1996; Schein, 1992b) and accountability systems (Lerner & Tetlock, 1999; Simonson & Nye, 1992; Tetlock, 1992) greatly shape what and how people in organizations think. As such, these contexts offer relevant insights into how work worlds can be engineered to enable people to make better decisions about conforming or deviating. Second, management scholars have argued that decision making is a byproduct of social and task functions (Fiedler, 1967; Katz & Kahn, 1978)—and, in this vein, organizational culture and accountability systems serve critical social and task functions, respectively (Johns, 2006). Organizational culture serves social functions by shaping how people relate to one another (Hofstede et al., 1990) whereas accountability systems serve task functions by enforcing performance standards (Katz & Kahn, 1966). Third, organizational culture and accountability systems are so intricately intertwined such that it is difficult to examine their effects on behavior in isolation of one another (Gelfand, Lim, & Raver, 2004). Consistent with combinational perspectives which state that a particular context can have certain effects when configured with one context but an opposite effect when configured with another (Lee et al., 2004; Meyer, Tsui, & Hinings, 1993), I will demonstrate that different combinations of cultural norms and accountability systems can have very different effects on behavior.
Specifically, I show that decision makers fall prey to conformity or deviation biases when operating in combinations of cultural values and accountability systems that trigger the same patterns of thought. But decision makers are able to control exposure to both risks when operating in combinations that trigger clashing patterns of thought. Overall, this chapter provides fresh insights into the heavily under-researched study of balancing conformity and deviation risks, offers a way to offset the downside risks of different types of organizational cultures and accountability systems, and qualifies prevalent notions that work contexts that prime the same psychological states are beneficial (cf. Argyris, 1990; Locke et al., 1994; Wageman, 1995).

**CULTURAL VALUES AND ACCOUNTABILITY SYSTEMS:**

**PUSHING TOWARDS AND AWAY FROM CONFORMITY AND DEVIATION**

**The Risks of Conformity and Deviation Biases**

As briefly described above, decision makers who exhibit conformity and deviation biases can incur large costs for themselves and their organizations. There are at least three reasons why conformity biases—or tendencies to consistently preserve or maintain the status quo—can be problematic. First, decision makers confront tasks whose demands are constantly in flux due to rapid technological advancements, global economic changes, and evolving consumer tastes. Sometimes it is difficult for established practices and beliefs to update fast enough to keep pace with these fluctuating task demands (Burns & Stalker, 1961; Leana & Barry, 2000). As such, employees who continuously conform to the status quo risk adhering to flawed work process and methods thereby dampening organizational functioning (Grant & Parker, 2009; Morrison & Phelps, 1999). Second, decision makers confront tasks that are plagued with uncertainty: there is low predictability among inputs, processes, and outcomes (Wall, Cordery, & Clegg, 2002). As such, organizations are limited in their abilities to formalize
work processes and methods for all possible situations that may arise (Murphy & Jackson, 1999). Employees who exhibit conformity biases may miss opportunities to utilize their own intuitions and unique capabilities to effectively cope with a given situation (Griffin et al., 2007). Third, sometimes established practices and beliefs may be simply flawed (Staw & Boettger, 1990). Some organizational members have a tendency to adopt management fads and fashions that are popular but not always useful or effective (Abrahamson, 1996). Employees who conform to these fads merely cause them to persist.

But there is also the risk of the less-acknowledged deviation bias—or tendency to continuously challenge or alter the status quo. Deviation biases can be just as costly. For one, as argued in emerging “wisdom of the crowd” research, sometimes standard practices and beliefs are simply more accurate than that which any one individual can generate (Bonabeau, 2009; Page, 2007; Surowiecki, 2004). Individuals have bounded cognitive capabilities (Simon, 1957)—and often fall prey to a host of well-documented cognitive biases that can debilitate decision making (Kahneman, 1973, 2011). As such, following the beliefs of the crowd can actually increase the reliability, predictability, and accuracy of decision making—and those who deviate may do so at their own peril (Sutcliffe & McNamara, 2001). Additionally, standard practices and beliefs can protect decision makers in uncertain task environments (March & Simon, 1958). Sometimes standard practices capture all key predictive regularities in the task environment (Hammond, 1995). And deviating from these practices can result in futile attempts to explain unexplainable variance (Arkes et al., 1986; Dean & Sharfman, 1996). Finally, standard practices and beliefs can help organizations meet the demands of the various stakeholders to whom they are accountable (O’Reilly, 1989; Tyler & Blader, 2005). For
instance, standard practices can help managers signal to scrutinizers that they are in compliance with broader socio-political values (Edelman, 1992; McEvoy, 2014).

How can work worlds be designed to enable decision makers to reduce the risks of conformity and deviation biases? For the reasons noted at the onset of this chapter, I focus on the interplay of organizational culture and accountability systems.

**Organizational Culture and Conformity and Deviation Biases**

Organizational culture captures the values and norms that bind people within a collective, provide them with a lens through which they can interpret their surroundings, and direct their actions (Schein, 1992a; Trice & Beyer, 1993). Culture shapes—and is shaped by—how leaders lead (Schein, 2004), group members behave (Chatman & Barsade, 1995), and employees are socialized (Hofstede et al., 1990). Organizational psychologists have recognized the collectivism-individualism dimension as a central way in which organizational cultures can be distinguished (e.g., Chatman & Jehn, 1994; Earley, 1993; Goncalo & Staw, 2006). The collectivism-individualism dimension was initially used to explain cultural variance across nations (e.g., Hofstede, 1980; Triandis, 1995). But scholars have noted that cultural frames are malleable: cultural values can be primed by influential elements of an individual’s immediate situation. As such, collectivist-individualist cultural patterns do not just exist at the national level (Brockner, 2003). They can also exist at lower levels including at the level of the organization or work group (e.g., Chatman & Jehn, 1994; Earley, 1993; Goncalo & Staw, 2006).

Research suggests that the degree to which an organization or work group is collectivist or individualist can affect the degree to which people tend to conform or deviate. In general, people in collectivist organizations promote communal goals, interpersonal harmony, and group achievements (Chatman & Barsade, 1995)—and view
themselves as inherently interdependent with one another (Gelfand et al., 2007). The opposite is true for more individualist organizations. People in individualist organizations promote individual goals, distinctiveness, and personal achievements—and view themselves as inherently independent from one another (Earley & Gibson, 1998). As such, people in collectivist settings tend to stake more conformist stances so as to not rock-the-boat and to avoid conflict whereas people in individualist settings tend to stake more deviant stances to express their unique ideas (Bond & Smith, 1996; Kitayama, Markus, & Lieberman, 1995). For these reasons, researchers have found that collectivist groups tend to be less creative than individualist groups: people in collectivist groups express a less diverse set of ideas and are less tolerant of competing viewpoints (Goncalo & Staw, 2006).

We should therefore expect employees in collectivist organizations to be more vulnerable to the risks of conformity biases and employees in individualist organizations to be more vulnerable to the risks of deviation biases. But this hypothesis rests on the assumption that culture in organizations works in isolation of other work contexts. I propose that the effects of organizational culture on conformity and deviation biases can be offset by the organization’s accountability system.

**Offsetting the Effects of Organizational Culture via Accountability Systems**

Accountability refers to the ways in which people are expected to justify or defend their actions and behaviors (Frink & Klimoski, 2004; Tetlock, 1985). One prominent distinction is between process versus outcome accountability (Patil, Vieider, & Tetlock, 2013; Pitesa & Thau, 2013; Simonson & Staw, 1992). People accountable for processes are expected to justify and explain their thoughts, strategies, and efforts while making their final decisions (de Langhe, van Osselaer, & Wierenga, 2011; Siegel-Jacobs & Yates, 1996; Slaughter, Bagger, & Li, 2006). People accountable for outcomes are only expected
to justify the end quality, accuracy, or consequences of their final decisions (Brtek & Motowidlo, 2002; Simonson & Staw, 1992). Intelligence agencies can place a greater emphasis on what analysts considered when making forecasts versus on the accuracy of their forecasts (Tetlock & Mellers, 2011b), hospitals, on how physicians made their diagnoses versus on patient recovery rates (Rubin, Pronovost, & Diette, 2001), and companies, on how salespeople go about making sales versus on final sales figures (Anderson & Oliver, 1987).

Research suggests that employees cope differently when under process vs. outcome systems. People accountable for processes do not have the luxury of defending decisions by pointing to their positive outcomes; they have to ensure that how they go about making their decisions will be judged as appropriate (Beu & Buckley, 2004). As such, people accountable for processes tend to refrain from challenging shared practices and beliefs (Patil et al., 2013; Tetlock, Skitka, & Boettger, 1989). Shared practices and beliefs reflect widely-held notions about what is appropriate and legitimate (Feldman & March, 1981; Langley, 1989)—and therefore there is a low risk of losing rewards and status if employees conform to them (Parker et al., 2010).

By contrast, people accountable for outcomes are incentivized to maximize the end returns of decisions (Siegel-Jacobs & Yates, 1996). For better or for worse, there is little incentive to pay attention to how they go about actually delivering the results (Schweitzer, Ordonez, & Douma, 2004). Standard practices and beliefs are meaningless to employees under outcome systems to the extent that they do not offer them the means to maximize outcomes. As such, decision makers accountable for outcomes are likely to deviate from standard practices in search for better outcomes even when these practices are appropriate for a given task (Arkes et al., 1986).
This discussion suggests that individuals are likely to become more vulnerable to the risks of conformity biases when operating under combinations of collectivist values and process systems. Using the language of Lewinian force fields in social psychology (Lewin, 1951), collectivist values and process systems are driving forces that push individuals in the direction of conformity. But the risks of conformity biases should be attenuated when process systems are replaced by outcome systems. Here, outcome accountability serves as a restraining force against the conformity tendencies exhibited under collectivist cultures. A similar pattern emerges for individualist norms. Individuals are likely to become more vulnerable to the risks of deviation biases when individualist values are coupled with outcome systems—both forces push individuals in the direction of deviation. But the risks of deviation biases should be attenuated when process systems are embedded in individualist settings instead. Now, process accountability counteracts the deviation tendencies exhibited under individualist values.

*Hypothesis 1: Accountability moderates the effects of cultural values on vulnerabilities to the risks of conformity or deviation biases such that: (a) the risks of conformity biases under collectivist values is exacerbated (attenuated) when they are coupled with process (outcome) systems, and (b) the risks of deviation biases under individualist values is exacerbated (attenuated) when they are coupled with outcome (process) systems.*

I tested Hypothesis 1 in a laboratory experiment. I chose a laboratory methodology so I could reduce the *post hoc ergo propter hoc* fallacy: observers assume what the right action should have been based on ex-post outcomes (Fischhoff, 1975). In other words, if a decision maker conforms and returns a negative outcome, observers tend to conclude that she should have deviated—and if a decision maker deviates and returns a negative outcome, observers tend to conclude that she should have conformed.
But we know that in the real world, task environments are stochastic. Stochastic environments can punish decision makers who make the right decision—or reward decision makers who make the wrong decision (Mauboussin, 2012). Thus, in hindsight, we can draw erroneous conclusions about what should have been done (Bertrand & Mullainathan, 2001). A laboratory methodology reduces this fallacy by enabling me to:
(a) control decision makers’ exposure to the risks of conformity and deviation biases, and
(b) determine *ex-ante* the extent to which better outcomes can or cannot be achieved above and beyond what can be achieved via current group practices and beliefs.

**STUDY 1: METHODS**

Study 1 utilizes a multiple cue probability (MCPL) paradigm (Brunswik, 1943; Hammond, 1955). The MCPL paradigm is widely used in studies of accountability (Ashton, 1992; Hagafors & Brehmer, 1983), judgment and decision making (Brehmer, 1973; Mellers, 1980), and learning (Gluck & Bower, 1988; Knowlton, Squire, & Gluck, 1994). In this study, participants predicted the performance of applicants to their university. The experiment was a 2 (Culture: collectivist vs. individualist) by 2 (Accountability: process vs. outcome) by 2 (Risk exposure: conformity vs. deviation bias) between-subjects factorial design. Because of the limited research on balancing the risks of conformity and deviation biases, I adopted a more controlled operationalization of conformity and deviation as dichotomous and manipulated risk exposure in addition to culture and accountability. Thus, there were two different experimental conditions: one in which the correct response is to deviate according to some normative standard and the other in which the correct response is to conform. I fully acknowledge that in the real world, decision makers can be exposed to both risks at the same time and can adopt some blend of conformity and deviation, but to begin establishing the groundwork for studying conformity and deviation risks, I opted for experimental control.
Sample, Design, and Procedures

Two hundred and nine students at a private East Coast university participated in this study (64% female). They were recruited by the university’s behavioral lab in exchange for $10. Participants were randomly assigned to one of the eight conditions in which they were led to believe they would be helping their university’s admissions office predict the performance of applicants to their university. For each applicant, they were (a) provided ratings on three skill sets (Academic Performance, Extracurricular Involvement, and Communication Skills), (b) asked to predict the applicant’s performance, and (c) shown the applicant’s actual performance according to university records.

Each of the three ratings (or cues) for each applicant were provided on a 9-point scale, ranging from “very weak” (1) to “very strong” (9). The applicants were presented in randomized order. Academic Performance and Extracurricular Involvement assumed one of three values (1, 5, 9) and Communication Skills assumed one of two levels (1, 9). These three skill sets were combined factorially and repeated three times with different feedback (or criterion values) on repetitions based on whether participants were exposed to the risks of conformity or deviation biases. This 3 x 3 x 2 factorial design repeated three times generated 54 trials. I capped the number of trials at 54 because research suggests that people’s cognitive performance tends to plateau around 50 trials (see Hammond & Summers, 1972: 66). Participants made their performance predictions for each of the 54 applicants on a 9-point scale ranging from “very low performance” (1) to “very high performance” (9). Figure 2 maps the step-by-step procedures of this study and the cue-criterion pairing.

Manipulations
**Culture manipulations.** Participants were led to believe that they would be presenting their predictions to two group members who were assigned to them. I manipulated the culture of these fictitious groups in two steps. First, I told them that their groups had the same values described in a fictitious *Harvard Business Review* article I provided. The HBR article was presented as one in which an eminent organizational psychologist explained three critical factors that distinguished successful from unsuccessful groups. In the collectivist conditions, the HBR article, entitled “What Makes Groups Successful? Loyalty, Cohesion, and Finding Common Ground” argued that group members should accept norms, cooperate with each other, and protect the interests of the group. In the individualist conditions, the article, entitled “What Makes Groups Successful? Independence, Dissent, and Open Expression of the Individual,” argued that group members should question norms, compete with each other, and protect their own interests. Figure 3 displays these fictitious HBR articles.

Second, I asked participants to (a) describe three ways in which they could exhibit the same values as their group members (adapted from Trafimow, Triandis, & Goto, 1991), and (b) explain why it was important to exhibit each of these attributes (adapted from Goncalo & Staw, 2006).

I created a three-item scale as part of the manipulation check, with lower numbers reflecting collectivist norms and higher numbers, individualist norms. Participants were asked to rate on an 8-point scale (“disagree strongly” to “agree strongly”) the extent to which they thought their group members believed in (1) “challenging group norms”; (2) “promoting group harmony” (reverse-coded); (3) “protecting their own interests” ($\alpha = .99$).
**Accountability manipulations.** The process and outcome accountability manipulations were consistent with previous studies (e.g., Brtek & Motowidlo, 2002; de Langhe et al., 2011; Siegel-Jacobs & Yates, 1996; Simonson & Staw, 1992; Slaughter et al., 2006). All participants were told that their $10 compensation for the study was contingent on the researchers’ evaluation of their performance and were asked to sign a consent form granting the researchers permission to interview them at the end of their task. In the process accountability conditions, participants were told that the researchers would evaluate them based on how they went about making their decisions (i.e., the strategies they used to combine information about applicants to arrive at their final predictions) rather than on whether their predictions were ultimately accurate. In the outcome accountability conditions, participants were told that they would be evaluated only on the accuracy of their predictions rather than on how they went about their decisions.

I created a four-item scale as part of the accountability manipulation check, with lower numbers reflecting process accountability and higher numbers, outcome accountability. Anchors for the 8-point bipolar rating scale were: (1) “I believe I will be evaluated on the decision making strategies I utilized (and not on the accuracy of the outcomes)” and “I believe I will be evaluated on the accuracy of our final predictions (and not on the decision making strategies we utilized)”; (2) “The researchers will ask me to explain the decision making strategy I used to make my final predictions” and “The researchers will ask me to explain why my final predictions are right or wrong”; (3) “The researchers are more concerned with how I made my decisions and the effectiveness of my decision making strategies” and “The researchers are more concerned with whether my predictions are ultimately right or wrong”; (4) “Even if my predictions are inaccurate, I may still be evaluated favorably if I can defend the strategies that I used” and “Even if I
can defend the strategies I used to make my decisions, I will still be evaluated unfavorably if my final decisions are ultimately wrong” (α = .98).

**Risk exposure manipulations.** All participants were told that the decision rules used by their group in the previous session were 50%, 50%, and 0% for Academic Performance, Extracurricular Involvement, and Communication Skills, respectively (this information defined “group practices”). In the conditions that exposed participants to the risks of conformity biases, the group’s 50-50-0 weighting strategy was inadequate—and the predictability of the environment was high (multiple correlation between cues and criterion was .93). The optimal weighting strategy for this cue-criterion configuration was 30%, 30%, and 40% (which was not disclosed to them). Thus, participants who used the 50-50-0 strategy would perform worse than those who deviated and learned the optimal 30-30-40 strategy. “Performance” was measured via achievement scores, calculation of which will be explained in the next section.

In the conditions that exposed participants to the risks of deviation biases, the 50-50-0 weighting strategy was adequate—and the predictability of the environment was lower (multiple correlation = .54). In other words, the 50-50-0 strategy allowed decision makers to perform at the optimal forecasting frontier. No variance could be explained beyond what this strategy captured. Thus, participants who conformed to the 50-50-0 strategy would perform better than those who deviated.

**STUDY 1: RESULTS AND DISCUSSION**

To test if the manipulations had the desired effects, I ran a 2 x 2 x 2 multivariate analysis of variance (MANOVA) on the culture and accountability manipulation checks. There was a significant effect of the culture manipulation on the cultural norms check, \(F(1, 209) = 17870.54, p < .001\). The collectivist conditions differed from the individualist conditions (M = 1.10 vs. M = 7.74), \(t(101) = -134.35, p < .001\). There was also a
significant main effect of the accountability manipulation on the respective check, \((F(1, 209) = 1801.98, p < .001)\). The process accountability conditions differed from the outcome conditions \((M = 1.23 \text{ vs. } M = 7.28 = 1.34), (t(100) = -38.88, p < .01)\). No other effects were significant.

To recap, Hypothesis 1 stated that group culture and accountability would interact such that (a) combinations of collectivist values and process accountability would exacerbate the risks of conformity biases but combinations of collectivist norms and outcome accountability would attenuate the risks, and (b) combinations of individualist values and outcome accountability would exacerbate the risks of deviation biases but combinations of individualist norms and process accountability. I tested Hypothesis 1 in three ways.

First, consistent with most MCPL studies (e.g., Hagafors & Brehmer, 1983), I calculated participants’ achievement scores using the lens model (Brunswik, 1952). The achievement score, \(r_a\), is the correlation between the subject’s responses and criterion values. It is calculated as the product of three components: \(R_e\), the multiple correlation between the cues and criterion, \(R_s\), the multiple correlation between the cues and the participants’ responses, and \(G\), the matching index or the correlations between predictions of the two models. Table 1 displays the means and standard deviations of these measures.

I ran a 2 x 2 Accountability by Group Culture factorial ANOVA of achievement scores for both environments (risk of conformity bias: \(F(1, 100) = 5.07, p < .05, \eta^2 = .05\); risk of deviation bias: \(F(1, 101) = 4.31, p < .05, \eta^2 = .04\)). Figure 4 plots these interactions. When exposed to the risks of conformity biases, participants in collectivist values/ process accountability had lower achievement scores than those in collectivist values/ outcome accountability \((M = .60 \text{ vs. } M = .69)\), \((F(1, 100) = 15.73, p < .001)\).
When exposed to the risks of deviation biases, participants in individualist values/outcome accountability had lower achievement scores than those in individualist values/process accountability (M = .14 vs. M = .23), \((F(1,101) = 28.53, p < .001)\). Outcome accountability offset the conformist tendencies under collectivist values—and process accountability offset the deviant tendencies under individualist values.

Second, I looked more closely at the weighting strategies that participants used to gain deeper insights into the extent to which they were conforming to or deviating from the group’s 50-50-0 weighting strategy. Figures 5 and 6 show (a) mean predictions of applicants constructed from the factorial design of Academic Performance (AP; levels 1, 5, 9) by Extracurricular Involvement (EI; levels 1, 5, 9) by Communication Skills (CS; levels 1, 9), and (b) ideal predictions if participants used the optimal weights (grey lines with no markers). Figures 5 and 6 refer to the conformity and deviation risk conditions, respectively. In each panel, predictions are plotted as a function of AP and the slopes of these lines reflect its weight. Each separate line reflects each level of EI and the spaces between these lines reflect its weight. Intercept shifts from the left to right of each panel show the weight of CS.

In Figure 5, we see that participants in collectivist values/process accountability overweighted AP (steeper slopes), overweighted EI (larger spaces between the lines), and assigned minimal weight to CS (no upward shift from left to right) (Panel A). They barely deviated from the group’s 50-50-0 weighting practice. Participants in the other conditions were closer to the ideal 30-30-40 weighting strategy (Panels B-D). They reduced the weight of AP (flatter slopes), reduced the weight of EI (smaller spaces between the lines), and increased the weight of CS (upward intercept shift). In Figure 6, we see that participants in individualist values/outcome accountability underweighted AP and EI (flatter slopes and smaller spaces) and overweighted CS (upward intercept
shifts) (Panel H). This time, these participants were less aligned with the ideal 50-50-0 strategy. All other participants in the remaining three conditions assigned greater weight to AP and EI (steeper slopes and larger spaces) and minimal weight to CS (no upward shift in lines) (Panels E-G).

To quantify these observations, I directly calculated participants’ cue-weighting strategies by (a) regressing the cue structure against each participant’s predictions to obtain the unstandardized coefficients and (b) converting these coefficients to percentages by dividing each by the sum of the three. Figure 7 displays the percentages across conditions with the upper and lower panels corresponding to the exposure to conformity and deviation risk conditions, respectively. When exposed to the risks of conformity biases, participants in collectivist values/ process accountability conformed most closely to the 50-50-0 weighting strategy, giving CS a weight of only 10%. When exposed to the risks of deviation biases, participants in individualist values/ outcome accountability incorrectly deviated from the ideal 50-50-0 weighting strategy, giving CS a weight of about 20%. But across both risk conditions, participants conformed when appropriate—and deviated when appropriate—in conditions in which the accountability system offset the risks of the cultural norms.

Finally, I examined participants’ learning over the course of the randomized trials. The trials were first re-sorted in the order the participant received the cue-criterion pairs. I then calculated the absolute difference between each participant’s prediction and the ideal prediction for each of the 54 trials. Next, I averaged the absolute differences within each experimental condition and plotted the differences as a function of trials in Figure 8. The upper panel refers to the risk of conformity bias conditions—and the lower panel, risk of deviation bias conditions.
Looking at the upper panel, participants in collectivist values/ process accountability fell between 1.0 and 1.6 deviations from the ideal. However, when exposed to the risks of deviation biases (lower panel), participants in individualist values/ outcome accountability wildly fluctuated as they tried to explain unexplainable variance. Their deviations from the ideal ranged anywhere from .9 to 2.1 points—and they never quite closed the performance gap compared to the other conditions. But, again, across both risk conditions, participants learned when to conform and when to deviate in conditions in which the accountability system offset the risk of cultural values (i.e., collectivist values/ outcome accountability, individualist values/ process accountability). In the upper panel, their deviations fell between .7 and 1.2 (collectivist values/ outcome accountability) and .7 and 1.3 (individualist values/ process accountability). In the lower panel, their deviations fell between .6 and 1.5 (collectivist values/ outcome accountability) and .5 and 1.55 (individualist values/ process accountability).

In sum, analysis of participants’ achievement scores, weighting strategies, and learning over time fully supported Hypothesis 1. Incongruent blends of accountability systems offset the risks of cultural values. The risks of conformity biases were exacerbated in blends of collectivist values and process accountability but the risks were reduced when individuals operated instead under outcome accountability. On the other end, the risks of deviation biases were exacerbated in blends of individualist values and outcome accountability but the risks were dampened under process accountability.

In the next chapter, I will explore the cognitive processes underlying these blends of cultural values and accountability systems which can explain why these blends have these reported effects on conformity and deviation. I will also present a second experiment that replicates Hypothesis 1, corrects for the weaknesses of Study 1, and tests these additional hypotheses about cognition.
CHAPTER 3
SHifting BETWEEN THE CONCRETE AND ABSTRACT

Research on cultural values (Oyserman & Lee, 2008; Schneider, Ehrhart, & Macey, 2013) and accountability (Lerner & Tetlock, 1999; Tetlock, 1983a) suggests that both contexts fundamentally shape what and how individuals think. Cognition, therefore, may explain why different combinations of cultural and accountability systems have different effects on employees’ conformity or deviation responses. Construal level theory in social-cognitive psychology (CLT; Liberman & Trope, 1998; Trope & Liberman, 2003, 2010) offers relevant insights into these types of cognitions.

**Construal Level Theory: A Brief Overview**

CLT posits that decision makers can focus their attention on the more concrete or more abstract aspects or elements of their decisions (Trope & Liberman, 2010). Note that consistent with well-established research on the capacity limits on human attention and on the amount of information people can process per unit of time (Kahneman, 1973), CLT scholars argue that is probably impossible for humans to focus on both vantage points at the same time (Trope & Liberman, 2010). When decision makers focus on the concrete aspects, they fixate on the “nitty-gritty” details—the trees that can only be seen up close (Liberman, Trope, & Stephan, 2007b). Concrete frames include the subordinate and incidental features—and component parts—of a decision (Liberman & Trope, 2008). When decision makers focus on the abstract aspects, they focus on the “big picture”—the forest that can only be seen from afar (Fiske & Taylor, 1991; Medin & Smith, 1984). By contrast, abstract frames include the superordinate and central features—or the primary gist of a decision (Smith & Trope, 2006). For example, Magee, Milliken, and Lurie (2010) examined people’s reactions to the tragic events of 9/11.
Concrete processors focused on the details of the victims and the number of emergency respondents at the scene whereas abstract processors focused on national security, macro-economic issues, and international relations.

Note that the differences between concrete and abstract processing do not necessarily reflect differences in vagueness (Bar-Anan, Liberman, & Trope, 2006; Liberman, Trope, & Stephan, 2007a). The abstract elements of a decision do tend to be more simplistic and omit incidental, specific, and idiosyncratic details. But they also contain additional information about the value of an object and its broader relation among other stimuli (Trope & Liberman, 2010). For instance, when people abstractly construe a “poodle” as a “mammal,” they place it in the larger context of living things and thereby implicitly differentiate mammals from other life forms.

**Cultural Values, Accountability Systems, and Concrete-Abstract Processing**

As I argued in Hypothesis 1, people in collectivist settings are reluctant to “rock the boat” because they see themselves as interdependent with one another and are concerned with maintaining harmony (Bond & Smith, 1996; Goncalo & Staw, 2006; Lee et al., 2000). Not rocking the boat involves a degree of vigilance. People have to carefully monitor their behaviors to avoid social disapproval and fit in (Lalwani et al., 2009; Van Baaren et al., 2003). They are also especially sensitive to their duties and obligations (Cross et al., 2002). For these reasons, researchers have found that people in collectivist settings tend to adopt prevention-of-losses mindsets: they are inspired by role models who emphasize avoiding failures (Lockwood et al., 2005) and are more concerned with minimizing losses than maximizing gains (Hamilton & Biehal, 2005).

Employees are likely to become more vigilant when they are in a collectivist organization and also accountable for processes. People under process systems do not have the luxury of defending their decisions by pointing to their positive outcomes; they
have to ensure how they go about making their decisions will be judged as appropriate. As such, researchers have argued that people accountable for processes tend to be more risk averse and concerned with minimizing losses (Eisenhardt, 1985; Lerner & Tetlock, 1999; Pitesa & Thau, 2013). They are motivated to cross all their t’s and dot all their i’s.

Vigilant people in turn tend to process their information worlds more concretely (Friedman & Förster, 2001; Lee & Higgins, 2009). Concrete processing enables vigilant people to fulfill their goal of being prevention focused: focusing on the details and micro-level obstacles enables them to eliminate any threats to security and any potential for losses (Förster & Higgins, 2005). As such, we would expect individuals operating in blends of collectivist values and process accountability to be particularly focused on the concrete aspects of their decisions.

The opposite patterns emerge in individualist settings. Because people in individualist settings see themselves as independent and strive to be distinct, they are more concerned with self-enhancement goals (Lalwani & Shavitt, 2009). A preoccupation with self-enhancement goals causes them to be on the prowl for ways to maximize potential gains (Lalwani et al., 2009). Reflective of promotion-of-gains mindsets, people in individualist settings are more motivated by success than failure feedback (Heine et al., 2001) and more sensitive to success-foregone events (not winning) than failure-avoidance events (not losing) (Lee et al., 2000).

Employees are likely to be even more eager to maximize gains when operating in an individualist organization that also holds its employees accountable for outcomes. Outcome accountability can increase the boldness and risk-seeking propensities of employees (Sitkin, See, Miller, Lawless, & Carton, 2011). For better or for worse, outcome accountability inherently incentivizes maximization of outcomes (Siegel-Jacobs & Yates, 1996). For these reasons, some have argued that outcome systems are
advantageous for increasing innovation—outcome systems fire up employees to explore the unexplored (Coyne, 1997; Simons, 2005; Tetlock & Mellers, 2011b). Some have also argued that because outcome accountability increases propensities to take risks, people under these systems are likelier to engage in behaviors that cross ethical lines (Ordóñez, Schweitzer, Galinsky, & Bazerman, 2009; Pitesa & Thau, 2013; Schweitzer et al., 2004).

Eager, risk-seeking individuals in turn process their information worlds more abstractly (Semin et al., 2005). Again, the type of processing aligns with the goals of the individual. Abstract lenses that focus people on the big picture prevent them from being bogged down by the details in their pursuit of maximizing gains (Förster & Higgins, 2005). Focusing on the concrete, micro details would only preclude them from achieving their goals of growth and accomplishment. Based on these arguments, I expect decision makers operating in blends of individualist values and outcome accountability to be particularly focused on the abstract aspects of their decisions.

Up to this point, I have only discussed congruent combinations of cultural values and accountability systems—those that fixate decision makers on either concrete or abstract vantage points. But things become more complex under the incongruent combinations: collectivist values / outcome accountability and individualist values / process accountability. In these combinations, one system pushes decision makers towards the concrete and the other, towards the abstract.

I introduce the construct, *construal shifting*, to describe the patterns of thought I hypothesize will emerge under these incongruent combinations. Construal shifting refers to the extent to which decision makers iterate between the concrete and abstract. Weak construal shifters look only at the concrete or the abstract (as I predicted would respectively occur under collectivist values / process accountability and individualist values / outcome accountability). But strong construal shifters consider how the micro
details of a decision fit into the bigger picture—and how the big picture puts the micro
details into context. For example, advertising executives who iterate between the
concrete and abstract see how the concrete details of their advertisements (e.g., the
actors they hire, the colors they use) help them satisfy global consumer demands—and
how satisfying global consumer demands shapes how they should go about
implementing the concrete details of their advertisements.

Note that the concept of construal shifting as I define it does not violate
assumptions about the limited ability of humans to simultaneously fixate on the concrete
and the abstract during a single point in time. As I discussed above, CLT scholars have
argued that it is probably impossible for humans for focus on both vantage points
(Trope & Liberman, 2010). By contrast, I define construal shifting as a cross-time
construct that requires shifting attentional focus—in a disciplined manner—over a
broader span of time.

**Hypothesis 2.** Accountability moderates the effects of cultural values on
construal shifting such that: (a) construal shifting is stronger (weaker) under
collectivist values when coupled with outcome (process) systems, and (b)
construal shifting is stronger (weaker) under individualist values when coupled
with process (outcome) systems.

**Construal Shifting and the Risks of Conformity and Deviation Biases**

The degree to which decision makers focus near-exclusively on the concrete or
the abstract can in turn affect their susceptibilities to conformity and deviation biases.
Essentially, weak construal shifters are likely to demonstrate rather monistic preferences
for either conforming or deviating. The more people process their information
concretely, the more they are made aware of potential obstacles (De Dreu,
Giacomantonio, Shalvi, & Sligte, 2009)—and the further risk-averse and vigilant they
become. Much research suggests that prevention focused managers are especially sensitive to negative deviations from the status quo (differences between “0” and “-1”) (Herzenstein et al., 2007; Higgins & Tykocinski, 1992). In other words, they are more attentive to the costs vs. pros of change—and thus would rather persist with nonnegative, satisfactory current states than risk shifting from the status quo and incurring losses (Chernev, 2004; Crowe & Higgins, 1997; Liberman et al., 1999). In general, stability rather than change is more preferable for the prevention focused employee (Liberman et al., 1999).

On the other end, the more people process information abstractly, the more eager and risk-seeking they become. Concrete obstacles become largely inaccessible to people who process their environments abstractly, so they become more and more obsessed with maximizing gains (Henderson et al., 2006). Promotion focused individuals are more sensitive to positive deviations from the status quo (differences between “0” and “+1”) (Higgins, 2008). They are more attentive to the pros vs. cons of change. For the promotion focused individual, the upside gains of challenging the status quo loom larger than the downside risks of doing so (Crowe & Higgins, 1997). Hence, change rather than stability is more preferable (Liberman et al., 2001).

Because of these single-minded preferences for change vs. stability, I expect that congruent combinations of collectivist values / process accountability and individualist values / outcome accountability will increase susceptibilities to conformity or deviation biases, respectively, because they induce weaker levels of construal shifting.

However, strong construal shifters are in a unique position to wrestle with the pros and cons of conforming or deviating—and are likely to take a more broad-minded approach to making the decision. When people iterate between concrete and abstract modes, the benefits of deviation that are otherwise inaccessible are now accessible. And
when people shift from abstract to concrete modes, the benefits of conformity that are otherwise inaccessible are now accessible. Essentially, whereas employees under congruity are pushed into either zones of conformity or zones of deviation, employees under incongruity more critically examine the opposing demands that they confront. A more critical examination enables decision makers to grapple with conformity-deviation tensions (Denison, Hooijberg, & Quinn, 1995; Lewis, 2000)—and thereby simultaneously reduce both risks.

My hypothesis that clashing cognitions enhances people’s ability to flexibly cope with competing demands has parallels to other research streams. For example, people caught in “accountability cross-fire” more complexly shift between considering the demands of each party—and exert high cognitive efforts to find an integrative solution (Green et al., 2000). People who are exposed to foreign cultural environments that clash with their domestic understandings integratively shift between the foreign and indigenous cognitive schemas (Leung, Maddux, Galinsky, & Chiu, 2008). Finally, people who experience conflicting negative and positive emotions (Fong, 2006)—or other paradoxical cognitive frames (Miron-Spektor et al., 2011b)—flexibly consider competing elements to resolve the conflict.

Hypothesis 3. Construal shifting mediates the interactive effects of cultural values and accountability. Congruent combinations of collectivist values / process accountability and individualist values / outcome accountability exacerbate the risks of conformity and deviation biases because they trigger weaker levels of construal shifting. Incongruent combinations of collectivist values / outcome accountability and individualist values / process accountability reduce the risks of conformity and deviation biases because they trigger stronger levels of construal shifting.
STUDY 2: METHODS

I tested all three hypotheses in a second study. Study 2 differs from Study 1 in two fundamental ways. First, in addition to replicating Hypothesis 1, Study 2 examines why incongruent combinations of cultural values and accountability systems enables decision makers to bring down both risks. Second, Study 2 builds on the strengths but also corrects for the weaknesses of Study 1. Study 1 presented participants with a series of 54 trials and after each trial they received feedback on their performance. Given the presence of multiple trials and feedback, it is interesting that people in the congruent combinations of collectivist values / process accountability and individualist values / outcome accountability continued to conform or deviate, respectively, even in the face of negative feedback. But, at the same time, people in the incongruent conditions were also afforded the opportunity to learn what type of environment they were in over the series of trials. In real world decision environments, managers are not always afforded such luxuries—and often are forced to make single judgments. To correct for this limitation of Study 1, Study 2 measures binary decisions to conform or deviate at single points in time (with no feedback). Study 2 therefore offers a more conservative test of the proposed hypotheses.

Sample, Design, and Procedures

Four hundred and one students at a private East Coast university participated in this study (64% female). They were recruited by the university’s behavioral lab in exchange for $10. Participants were randomly assigned to one of the eight conditions. Four respondents were deleted from the study due to “gibberish” open-ended responses for the construal shifting measure.
Participants worked on decision making scenarios adapted from J.C. Penney’s “Fair and Square” case study (Ofek & Avery, 2013). In this case study, former CEO Ron Johnson fell prey to the risks of both conformity and deviation biases: (a) he deviated from internal crowds that heavily criticized an initiative that would replace the traditional practice of regular sales and discounts (“high-to-low” pricing) with an everyday low pricing (ELP) strategy, and (b) he conformed to internal crowds that supported the continuation of the ELP initiative despite negative initial results and continued to invest in ELP. These deviation and conformity decisions, respectively, led to Johnson being ousted from his position (Surowiecki, 2013). J.C. Penney has now reversed the controversial “fair and square” strategy (TIME, May 2013).

The decision making scenarios that participants worked on mirrored the decisions Johnson confronted. But the case was disguised as one that pertained to a local university bookstore. Participants were led to believe that they would be making a series of decisions for the bookstore and presenting these decisions to bookstore representatives during the lab session. To control for familiarity with the outcomes of the J.C. Penney case, all participants were asked to indicate on a 7-point scale the extent to which they were familiar with the case (“not very familiar” to “very familiar”). All analyses control for familiarity.

Manipulations

Culture manipulations. I manipulated group culture by manipulating the values of the bookstore representatives to whom participants would be presenting their decisions. There were three steps to the culture manipulation.

In the first step, I told participants that last month, the university bookstore conducted a survey of their employees asking them to describe the organization’s culture. In the collectivist conditions, I told them that the top three most frequently appearing
items were maintaining harmonious relationships, assimilating with others, and pursuing organizational goals. In the individualist conditions, I told them the top three items were maintaining independence, being distinct from others, and pursuing personal goals. In the second step, I asked them to read fictitious HBR articles that were slightly adapted from Study 1 (see Figure 9). The article was presented as a recently published one that highlighted how the bookstore’s values were beneficial for organizations. In the third and final step, I asked them to describe three ways in which they could exhibit the same attributes/values as the bookstore employees and why they would think it is important to exhibit these values (Goncalo & Staw, 2006; Trafimow et al., 1991).

They completed a four-item manipulation check, with lower numbers reflecting collectivist values and higher numbers, individualist. On 8-point bipolar scales, they rated whether the bookstore representatives to whom they would be presenting their decisions were more likely to value: (1) Cohesion or Independence; (2) Fitting In or Standing Out; (3) Harmony or Dissent; (4) Collective Goals or Personal Goals (α = .99).

**Accountability manipulations.** The process and outcome accountability manipulations were similar to those in Study 1 and consistent with past research (e.g., Brtek & Motowidlo, 2002; de Langhe et al., 2011; Siegel-Jacobs & Yates, 1996; Simonson & Staw, 1992; Slaughter et al., 2006). Process-accountable participants were told that the researchers would evaluate them based on how they went about making their decisions (i.e., their thought processes, rationale, and reasoning) rather than on whether they ultimately made the “right” or “wrong” decision. Outcome-accountable participants were told that the researchers would evaluate them based on whether they ultimately made the right or wrong decision based on decision-making research rather than on their processes, rationale, and reasoning for making their decisions. All participants were told that $10 compensation for the study was contingent on the researchers’ evaluation of
their performance. To up the ante, I also offered eight cash prizes of $100 each for the highest performers. All participants signed a consent form granting the researchers permission to interview them at the end of their task.

I created a four-item manipulation check, with lower numbers reflecting process accountability and higher numbers, outcome accountability. The anchors for the 8-point rating scale were: (1) “I will be evaluated on the rationale behind my decisions (and not on the correctness of my decisions)” and “I will be evaluated on the correctness of my decisions (and not on the rationale behind my decisions)”; (2) “The researchers will ask me to explain my thought processes in making my decisions” and “The researchers will ask me to explain why my decisions are the right or wrong ones”; (3) “The researchers are more concerned with how I went about making my decisions and the rationale for my decisions” and “The researchers are more concerned with whether my decisions are ultimately right or wrong”; (4) “Even if my decisions are incorrect, I may still be evaluated favorably if I can successfully defend the rationale behind my decisions” and “Even if I can defend the rationale behind my decisions, I will still be evaluated unfavorably if my final decisions are ultimately incorrect” (α = 1.00).

**Risk exposure manipulations.** The stimulus materials differed depending on whether participants were in the conditions that exposed them to the risks of conformity or deviation biases. Reflective of the real-world decisions made by Johnson, the materials differed in the time period in which participants were making their decisions. (All stimulus information was kept as close to possible to that presented in the J.C. Penney “Fair and Square” case study by Ofek and Avery (2013)).

In the conditions that exposed decision makers to the risks of deviation biases, participants were told as an introduction:
“The Drexel Bookstore, which caters to members of the Drexel, UPenn, and larger Philadelphia communities, once enjoyed many years of steadily growing profits until 2008. Since then, it has experienced rapid declines and is in desperate need of a turnaround.”

They were then provided a fictitious graph of the bookstore’s declining net income from 2008 to 2013 (1st quarter). They were then told that the bookstore is currently facing three global pressures:

1. **Declining customer visits.** In-store customer visits to the bookstore have declined. The UPenn Bookstores are taking away business from the high-end consumer base. Second-hand specialty and student-operated bookselling networks are taking away the low-end.

2. **Competition from online retailers.** Competition is increasing from online retailing. The popularity of physical (“brick and mortar”) stores is declining. And the Drexel Bookstore is **unable to provide an attractive in-store consumer experience.** Whereas competitors are investing heavily in their e-commerce operations, Drexel Bookstore’s investment has remained stagnant.

3. **Lingering effects of 2008 economic recession.** Bookstore consumers are still feeling the effects of the economic recession. Consumers are increasingly frugal.

Following this, they were informed that there was a proposal on the table that recommended that the bookstore entirely eliminate the traditional practice of regular sales and discounts by implementing the following everyday low price (ELP) strategy:

1. Reduce all prices of books and merchandise by an average of 40% to offer consumers everyday low prices.

2. Remove the words “sale” and “clearance” from any of its promotional messaging in-store and out-of-store.

3. Replace the manufacturer’s suggested retail price on all book and merchandise tags (which traditionally also display the sales price) with the everyday low price.

4. Break with the traditional retailing best-practice of ending all prices with .99, and instead round up all prices to the nearest dollar to end with .00.

Finally, they were told that the majority of managers in the bookstore (including the representatives to whom they would be presenting their decisions) **did not support implementing** the ELP strategy. Thus, participants who chose to deviate from the majority would be committing a deviation error.
The conditions that exposed participants to the risks of conformity biases had similar stimulus materials but they started at a different time. As an introduction, these participants were told:

“The Drexel Bookstore, which caters to members of the Drexel, UPenn, and larger Philadelphia communities, once enjoyed many years of steadily growing profits until 2007. Since then, it has experienced rapid declines and is in desperate need of a turnaround.”

They were then provided a fictitious graph of the bookstore’s declining net income from 2007 to 2012. They were then told that the bookstore faced the three global pressures that were described above. Following this, they were informed that the bookstore decided to eliminate the traditional practice of regular sales and discounts and implement the everyday low price (ELP) strategy. The four components of the ELP strategy described above were provided to them. A point of departure from the aforementioned conditions, these participants were told that the results of the ELP strategy since the launch in November 2012 to March 2013 have been lower than expected. Specifically, they were told that the bookstore incurred significant earnings loss during the first quarter of 2013 due to plummeting sales revenues (-19%), gross margin compression (from 40.5% to 37.6%), and decreasing customer conversion.

Finally, they were told that the majority of managers in the bookstore (including the representatives to whom they would be presenting their decisions) did support continuing the ELP strategy. Thus, participants who chose to conform to the majority would be committing a conformity error.

**Measures**

**Binary continue/implement decisions.** In the conditions that exposed participants to the risks of conformity biases, participants had to decide whether to continue each of the four components of the ELP strategy. In the conditions that exposed
participants to the risks of deviation biases, participants had to decide whether to implement each of the four components. The choices were binary Yes vs. No. For each participant, I tallied up the number of “Yes’s” across the four components.

**Monetary allocation decisions.** Participants also had to allocate a $500,000 bookstore budget towards continuing the ELP strategy vs. abandoning the ELP strategy in the exposure to conformity risks conditions—or implementing the ELP strategy vs. seeking out alternative proposals in the exposure to deviation risks conditions.

**Construal shifting.** After they made their decisions, participants were asked to write down all their thoughts and reasoning while making their decisions. They were given the prompt, “What came to mind? What did you consider? What did you think about?”—and instructed to be as comprehensive and thorough as possible. Three coders who were blind to the conditions were trained to rate the randomly-sorted open-ended responses.

Construal shifting was rated on a 5-point scale provided in Table 2. A rating of 1 captured an exclusive concrete or abstract focus; a rating of 3, a focus shift from concrete-to-abstract or abstract-to-concrete; and a rating of 5, a full iterative shift from concrete-to-abstract and abstract-to-concrete. Ratings of 2 and 4 represent transitional levels between these milestones. Specifically, a rating of 2 reflected a weak concrete-to-abstract or abstract-to-concrete linkage, and a rating of 4 reflected a weak link in the full iteration between the concrete and abstract. Note that similar to related constructs on cognitive thought (e.g., see integrative complexity, Baker-Brown et al., 1992) coders were specifically trained to focus on the conceptual structure of the participants’ reasoning rather than on their subjective evaluation of the content of the participants’ response (i.e., the rightness or wrongness of the responses).
Of course, what constitutes “concrete” and “abstract” depends on the particular decision context (Magee et al., 2010). For this decision context, the concrete micro details were defined as the four specific components of the ELP strategy and the abstract elements were defined as the global, environmental issues that the bookstore was facing (declining customer visits, competition from online retailers, lingering effects of 2008 economic recession). This demarcation satisfies the subordination criterion for distinguishing the concrete and abstract that is discussed in CLT research. The subordination criterion suggests that the meaning of low-level, concrete aspects of a decision depends more on high-level, abstract representations than vice versa (Burgoon, Henderson, & Markman, 2013; Liberman et al., 2007b). In this study, the efficacy of the ELP strategy is contingent on the environmental issues confronting the bookstore—and is only one strategy out of many that can help to exacerbate or solve these issues. By contrast, broad environmental issues are stable characteristics of the competitive space in which the bookstore operates.

Figure 10 contains a schematic map of the coding scheme that was provided to the coders during training sessions. Participants who focused only on the pros and cons of the ELP strategy (e.g., whether prices should end in .99 or .00)—or on the global issues of the bookstore (e.g., competition from online retailers)—received scores closer to 1. Participants who thought about how the ELP strategy helped or prevented the bookstore from addressing the global issues—and provided concrete details on what the bookstore could do to address the global issues—received scores closer to 5.

Reliability (ICC2 = .90, p < .001) and agreement (AD = .35) among the three coders were high (LeBreton & Senter, 2008). As such, I averaged ratings into a single construal shifting scale. Table 3 contains examples of participant responses for each level
of the scale. Bold text in parentheses indicates key points in the conceptual structure of the responses.

**STUDY 2: RESULTS AND DISCUSSION**

Table 4 shows means and standard deviations of the manipulation checks and dependent variable measures by experimental condition. A 2 x 2 x 2 MANOVA revealed a significant effect of the culture manipulation on the culture scale \(F (1, 401) = 29611.14, p < .001\) and a significant effect of the accountability manipulation on the accountability scale \(F (1, 401) = 29267.63, p < .001\). The collectivist conditions differed from the individualist conditions \((M = 1.08 \text{ vs. } M = 7.78), (t (198) = -170.56, p < .001)\). The process accountability conditions also differed from the outcome accountability conditions \((M = 1.06 \text{ vs. } M = 7.90), (t (199) = -174.33, p < .001)\). No other effects were significant. Thus, the manipulations had the desired effects.

To retest Hypothesis 1, the interactive effects of group culture and accountability on conformity and deviation biases, I ran a 2 x 2 Culture by Accountability ANCOVA\(^1\) on two scales: (a) the scale of binary decisions, calculated as the number of elements in the ELP strategy that the participant marked as “Yes” to continue or implement (higher numbers reflect greater support for continuing or implementing the ELP strategy), and (b) the scale of investment decisions to continue or implement the ELP strategy. Figures 11 and 12 display plots of these analyses, respectively.

\(^1\) All analyses controlled for familiarity. Familiarity had a significant effect on the binary decision and investment scales in the exposure to conformity risks conditions \((b = -.10, \text{s.e.} = .04, \beta = -.19, t = -2.70, p < .01); b = -14275.15, \text{s.e.} = 6003.45, \beta = -.17, t = -2.38, p < .05)\). But familiarity had only a marginally significant effect on the binary decision scale and no significant effect on the investment scales in the exposure to deviation risks condition \((b = -.09, \text{s.e.} = .05, \beta = -.13, t = -1.84, p < .10); b = -8838.12, \text{s.e.} = 6799.46, \beta = -.09, t = -1.30, p > .10)\). A 2 x 2 Culture by Accountability ANOVA without familiarity as a control yields a significant interaction for the binary scale \((F(1, 197) = 5.34, p < .05)\) and investment scale \((F(1, 197) = 4.43, p < .05)\) in the risks of conformity bias conditions—and significant interaction for the binary scale \((F(1, 196) = 13.21, p < .001)\) and investment scale \((F(1, 196) = 10.70, p = .001)\) in the risks of deviation bias conditions.
The ANCOVA on the binary decision scale revealed significant interaction effects for both risk-exposure conditions (exposure to conformity risk: $F(1, 201) = 4.75, p < .05, \eta^2 = .02$; exposure to deviation risk: $F(1, 200) = 12.10, p < .01, \eta^2 = .06$). When exposed to the risks of conformity biases, participants in the congruent combination of collectivist values / process accountability supported continuing more elements of the ELP strategy than those in the incongruent combination of collectivist values / outcome accountability ($M = 2.10$ vs. $M = 1.44$), $(F(1, 197) = 10.06, p < .01)$. When exposed to the risks of deviation biases, participants in the congruent combination of individualist values / outcome accountability supported implementing more ELP elements than those in the incongruent combination of individualist values / process accountability ($M = 2.64$ vs. $M = 1.80$), $(F(1, 196) = 12.36, p = .001)$.

Similar interactive patterns emerged in the ANCOVAs for the investment scale (exposure to conformity risk: $F(1, 201) = 4.27, p < .05, \eta^2 = .02$; exposure to deviation risk: $F(1, 200) = 9.97, p < .01, \eta^2 = .05$). When exposed to the risks of conformity biases, participants in the congruent combination of collectivist values / process accountability invested more in continuing the ELP strategy than those in the incongruent combination of collectivist values / outcome accountability ($M = $311,500 vs. $M = $185,400), $(F(1,197)=16.4, p < .001)$. When exposed to the risks of deviation biases, participants in the congruent combination of individualist values / outcome accountability invested more in implementing the ELP strategy than those in the incongruent combination of individualist values / process accountability ($M=$362,800 vs. $M=$235,460), $(F(1,196) = 14.44, p < .001)$.

Hypothesis 1 was thus fully supported and replicated: accountability moderated the effects of cultural values such that decision makers in the incongruent combinations reduced the risks of both conformity and deviation biases.
Hypotheses 2 and 3 proposed that the reasons why these culture by accountability patterns emerge was that incongruity enhances construal shifting (Hypothesis 2)—and construal shifting in turn enables people to reduce both risks (Hypothesis 3).

To test Hypothesis 2, I ran a 2 x 2 Culture by Accountability ANCOVA on construal shifting across both risk conditions. Figure 13 displays this plot. There was a significant interaction effect, \( F(1, 396) = 16.02, p < .01, \eta^2 = .04 \). Participants in the incongruent combination of individualist values / process accountability did engage in higher levels of construal shifting than did those in the congruent combination of individualist values / outcome accountability (M=2.10 vs. M=1.51), \( F(1, 397) = 21.21, p < .001 \). But participants in the incongruent combination of collectivist values / outcome accountability did not engage in higher levels of construal shifting than did those in the congruent combination of collectivist values / process accountability (M=1.76 vs. M=1.61), \( F(1, 397) = 1.33, p > .05 \). Hypothesis 2 was thus partially supported.

Finally, to test Hypothesis 3 (the full mediated-moderation model), I first regressed construal shifting against the two dependent variables. In the exposure to the risks of conformity biases conditions, construal shifting was a significant predictor of binary decisions (\( b = -.67, \text{s.e.} = .08, \beta = -.52, t = -8.76, p < .001 \)) and investment decisions (\( b = -75129.28, \text{s.e.} = 13105.85, \beta = -.37, t = -5.73, p < .001 \)). In the exposure to the risks of deviation biases conditions, construal shifting was also significantly related to the binary decision (\( b = -.46, \text{s.e.} = .09, \beta = -.36, t = -5.38, p < .001 \)) and investment scale (\( b = -65412.78, \text{s.e.} = 12167.29, \beta = -.36, t = -5.38, p < .001 \)). All coefficients were negative such that higher levels of construal shifting predicted a lower likelihood of continuing/launching the ELP initiative.
Second, I examined the direct interactive effects of culture and accountability on the dependent variables, controlling for construal shifting. In the exposure to conformity risks conditions, the effects dropped to nonsignificance for each of the dependent variables: binary decision scale ($F(1, 195) = 1.69, p > .10, \eta^2 = .00$) and investment scale ($F(1, 195) = 1.96, p > .10, \eta^2 = .01$). In the exposure to deviation risk conditions, the effects decreased but did not drop to nonsignificance for the binary decision scale ($F(1, 194) = 5.34, p = .02, \eta^2 = .03$) and the investment scale ($F(1, 194) = 3.99, p = .05, \eta^2 = .02$). This suggests partial mediation.

Third, I calculated the indirect effect of the product of culture and accountability on susceptibilities to the risks of conformity and deviation biases through construal shifting. The effect was evaluated using a 95\% confidence interval based on 5,000 bootstrap samples (using the PROCESS method, Hayes, 2013). The effect is significant if the interval excludes zero (Edwards & Lambert, 2007). The effects were significant in the conformity risks conditions: (a) binary decision scale (effect: .31, [.03, .60]); (b) investment scale (effect: 32864.63, [1501.56, 64628.79]). The same was true for the deviation risks conditions: (c) binary decision scale (effect: .42, [.17, .71]); (d) investment scale (effect: 58071.25, [23498.34, 100276.34]). Hypothesis 3 was thus predominantly supported. Incongruent combinations of cultural values and accountability systems enabled decision makers to bring down the risks of both conformity and deviation biases because they encouraged higher levels of construal shifting. The advantages of incongruity were particularly apparent for the combination of individualist values / process accountability.

**GENERAL DISCUSSION**

As I argued, organizational behavior scholars to date have focused near-exclusively on reducing the risks of conformity biases—but they have slighted the
opposing risks of deviation biases. This oversight has left us with a grossly limited understanding of how work contexts can be engineered to simultaneously reduce both risks. My studies take a step towards filling this gap. Using a methodology that enabled me to tightly control decision makers’ exposure to risks (while also constructing settings with high degrees of psychological realism), I demonstrated how and why different types of work contexts lead to different types of coping responses. I approached my research question from an integrative organizational culture-accountability lens—and in so doing, I offer a number theoretical contributions and open doors for a number of directions for future research.

**Theoretical Contributions**

My studies make at least five distinct contributions. First, they qualify work on the disadvantages of structural incongruity. Scholars across a variety of research domains have championed the benefits of congruity—work contexts that send consistent signals to employees about what behaviors are or are not appropriate. For example, researchers have found that performance is enhanced when goal structures (e.g., group vs. individual) match task structures (e.g., reciprocal vs. pool) (Saavedra et al., 1993), goal structures (e.g., assigned, representative, or group) match socio-cultural structures (Erez, 1986), value structures match reward structures when evaluative pressures are high (Lee et al., 2004), and management cultural practices match national cultures (Newman & Nollen, 1996). Scholars have also championed the benefits of congruity within structures—e.g., conflicting goals (Locke et al., 1994) and hybrid incentives (Quigley et al., 2007; Wageman, 1995) tend to debilitate performance. Researchers studying the more macro, systems level of analysis have also argued that congruence among organizational structures enhances performance (e.g., Cameron & Freeman, 1991; Doty, Glick, & Huber, 1993; MacDuffie, 1995; Nadler & Tushman, 1980).
These scholars have advanced a number of reasons explaining the benefits of congruity. For one, due to cognitive limitations, people tend to focus on what is encouraged or incentivized under one context at the expense of what is encouraged or incentivized under the other (Barnes et al., 2011). Additionally, people tend to hold consistent bundles of values, and incongruity inherently places them in value-conflicting situations, causing lower satisfaction (O'Reilly et al., 1991). Finally, people can deem incongruity to be procedurally unjust as it sends mixed signals about what is being rewarded; and, procedural injustice can ignite defiance (Tetlock, 1999; Tyler, 1990).

These studies challenge these findings by highlighting the benefits of incongruity in encouraging decision makers to shift into high-cognitive gear and cope with competing demands. However, note that given the evidence of the debilitating effects of incongruity, I do not attempt to make a broad-sweeping statement that incongruity is unconditionally beneficial. I concur that incongruity has the potential to send employees over the optimal stress point on the Yerkes-Dodson arousal performance curve (Yerkes & Dodson, 1908). Coping with incongruity is not pleasant. My position instead is more nuanced. When employees are at especially high risk of exhibiting conformity biases, it may be advantageous to offset the risks by enacting individualist norms and outcome systems. When employees are at especially high risk of exhibiting deviation biases, it may be advantageous to offset the risks by enacting collectivist norms and process systems. However, to the extent that organizational administrators cannot accurately assess the types of risks to which their employees are exposed, incongruent combinations of cultural norms and accountability systems may be able to shield employees.

Note that between the two incongruent conditions, I found that the combination of individualist values / process accountability generated higher levels of construal shifting. There are at least two reasons why the incongruent combination of collectivist
values / outcome accountability did not trigger higher levels of construal shifting. First, perhaps because I was working with a sample in the U.S., a more individualistic nation (Markus & Kitayama, 1991), my collectivist manipulation was not strong enough to produce the appropriate level of cognitive conflict. But, second, past research also gives some clues. Researchers have found that relative to outcome systems, process systems tend to prime more complex cognitions (e.g., Brtek & Motowidlo, 2002; De Dreu, Beersma, Stroebe, & Euwema, 2006; Scholten, van Knippenberg, Nijstad, & De Dreu, 2007). Process systems inherently signal to decision makers that the “answer” lies in how they think whereas outcome systems merely tell them to hit “home runs” (Siegel-Jacobs & Yates, 1996). In support of these notions, I did find that between the two incongruent conditions, combinations of individualist values / process accountability trigger more complex cognitions than did combinations of collectivist values / outcome accountability. But I did also unveil an influential moderator of previous research that suggests a link between process systems and complexity of thought: process systems increase complexity of thought only when embedded in individualist values but not collectivist values. Future research is needed to tease apart these two incongruent conditions further, but this current research suggests that of the two incongruent conditions, combinations of individualist values and process accountability may be more beneficial in balancing opposing risks.

Second, these studies challenge the notion that the relationship between conformity and deviation risks is hydraulic: when people reduce the risks of conformity biases, they increase susceptibilities to the risks of deviation biases, and vice versa (Levinthal & March, 1993). In other words, some scholars have argued that managers can do no better than shift error-aversion priorities along a conformity-deviation tradeoff curve (Adler et al., 1999; Lavie et al., 2010). My studies directly challenge these
assertions by demonstrating the human capacity to simultaneously reduce both risks. As I will further elaborate below, these findings spawn new research questions about the boundary conditions under which incongruity does or does not reduce both risks. It also answers fervent calls from macro scholars who study how organizations strike a balance between exploitation (the use and development of current routines and capabilities) and exploration (the search for new routines and capabilities) (Lavie et al., 2010; March, 1991). These scholars have called for organizational psychologists to examine how individuals manage analogous tradeoffs so they can build stronger links between the micro and macro levels (e.g., Gupta, Smith, & Shalley, 2006; Mom et al., 2009; Raisch, Birkinshaw, Probst, & Tushman, 2009). This article lays the foundations on which these micro-to-macro connections can be built.

Third, these studies help reconcile competing camps in both the organizational culture and accountability literatures. In the organizational culture literature, proponents of collectivist cultures (e.g., Chatman et al., 1998; Kaplan et al., 2009; Wagner, 1995) are pitted against proponents of individualist cultures (e.g., Bond & Smith, 1996; Kanter, 1988; Sutton, 2002b). Proponents of collectivist cultures point to the benefits of increasing collaboration and interpersonal helping (Moorman & Blakely, 1995) whereas proponents of individualist cultures point to the benefits of increasing creative thinking (Goncalo & Staw, 2006). There have also been disagreements about the pros and cons of process versus outcome accountability (Patil et al., 2013; Tetlock et al., 2013). Proponents of process accountability claim these systems reduce decision-making stress, thereby enhancing cognitive functioning (e.g., Brtek & Motowidlo, 2002; De Dreu et al., 2006; Schoemaker, 2011; Siegel-Jacobs & Yates, 1996). Proponents of outcome accountability claim these systems promote discovery and innovation (Coyne, 1997; Simons, 2005; Tetlock & Mellers, 2011b)—and that process systems frequently
degenerate into bureaucratic ritualism (Cardinal, 2001; Meyer & Scott, 1983; Pfeffer, 1981a).

This article offers points of reconciliation for both camps in both literatures. I demonstrate that the downside risks of organizational cultures and accountability systems are accentuated when each are coupled with their congruent other—but attenuated when coupled with the incongruent other. Collectivist values and process systems send employees down conformist paths. Individualist norms and outcome systems send employees down deviant paths. But mismatched combinations better enable employees to cope with these competing demands.

Fourth, these studies advance the study of accountability in the field of organizational behavior. Thus far, accountability research has primarily remained in the domain of judgment and decision-making (Lerner & Tetlock, 1999). Since Tetlock’s (1985) seminal article on accountability, researchers have predominantly focused on how different types of accountability systems affect decision making (Fandt & Ferris, 1990; Gordon & Stuecher, 1992; Simonson & Nye, 1992). But little attention has been given to how accountability interacts with other organizational attributes to shape cognition. Using the terminology of Heath and Sitkin (2001), accountability researchers have predominantly adopted a “Contextualized-B” approach: they have identified a single social context to explain individual behaviors.

A downside of “Contextualized-B” approaches is that researchers do not tap into the unique phenomenon of organizing—or, the dynamism involved with aligning goals and coordinating action. These studies help correct this gap by taking a more “Big-O” approach to the study of accountability. My studies propose that accountability systems constitute a norm-enforcement mechanism within a broader cultural value system—and I shed light on how two norm-enforcement systems dynamically interact to affect
behaviors important to organizational survival. This “Big-O” approach thus expands the applicability of accountability to organizational behavior research—and increases the validity of drawing conclusions about its effects in organizational life.

Fifth, these studies make fundamental contributions to CLT in two ways. For one, construal level theorists have called for studies on the contextual antecedents of concrete-abstract processing modes (Trope & Liberman, 2003, 2010). My examination of the roles of organizational culture and accountability heeds this call. But, perhaps even more importantly, construal level theorists have empirically examined the effects of adopting either a concrete or an abstract focus (Liberman et al., 2007b). They have not acknowledged the capacity of humans to engage in construal shifting—and blend the concrete and abstract. My conceptualization and empirical test of construal shifting demonstrates that the capacity of construal shifting indeed exists—and that construal shifting can tamp down the risks of exclusively focusing on either processing mode. It thereby encourages CLT scholars to move beyond merely delineating the pros and cons of exclusive concrete and abstract processing (the record of which is already quite extensive), and towards examining whether and to what extent people can shift between the two processing modes.

**Future Directions**

I identify three avenues for future research. First, future researchers could pursue alternative perspectives to examining the conditions under which employees can better balance the risks of conformity and deviation biases. In this article, I adopted a cognitive perspective, examining how organizational cultures and accountability systems shape ways of thinking. But this is only one perspective. Alternatively, future researchers can adopt a motivational perspective. For example, optimal distinctiveness theorists posit that people have simultaneous, albeit competing, needs to fit in and stand out (Brewer,
When employees feel that they are too assimilated in their organizations, they may regain a sense of distinctiveness by excessively deviating. When employees feel that they are too distinct from others, they may regain a sense of similarity by excessively conforming. But when employees’ needs to fit in and stand out are balanced, employees may be less motivated to move towards either extreme. A motivational perspective will greatly complement the cognitive perspective presented here by providing deeper insights about the conformity-deviation dialectic in organizations and enhancing the generalizability of the findings in this article.

A motivational perspective may also shed light on the additional mechanisms that are at play in my model. To recap, construal shifting only partially mediated the interactive effects of organizational culture and accountability when participants were exposed to the risks of deviation biases. The partial mediation suggests that other non-cognitive variables could be influencing people’s decisions. One variable is perceptions of interdependence-independence from people’s group members (Singelis, 1994)—or even level of cooperation-competition with them (Grant & Dweck, 2003). In addition to shifting between the concrete and abstract, people may feel a sense of both interdependence and independence—and cooperation and competition—with their group members that enables them to bring down the risks of conformity and deviation biases.

Second, future researchers could examine the boundary conditions of the link between construal shifting and the reduction of both risks. My studies assumed that: (a) decision makers sufficiently understood how to blend the concrete and abstract elements of the decision such that they would arrive at the final decision to discontinue or not invest in the ELP strategy, and (b) decision makers were operating at a high level of task certainty. Future research should examine the extent to which people can develop and fine-tune their abilities to accurately shift between the concrete and abstract across
different types of decisions, across time, and across different levels of task predictability. And they should examine the extent to which these abilities strengthen or dampen the potential for employees to simultaneously bring down both risks.

Finally, given the studies that highlight the benefits of congruity vs. incongruity, it would be helpful to begin drawing contingency models on when one is better than the other. For example, dispositional variables may affect when one is better. Some may thrive while others may freeze under incongruity. People who are integratively complex, or more effective at linking different perspectives (Tetlock, Peterson, & Berry, 1993), may better tolerate and cope with incongruity that those who are less so. The same may also be true for those low in need for cognitive closure, or those who are motivated to thoroughly process information (Kruglanski & Webster, 1996). Examining these dispositional factors can help reconcile previous work on incongruity with my findings.

**Practical Implications**

These studies inform practitioners of the ways in which cultural values and accountability systems can be engineered to appropriately manage the risks involved with conformity-deviation decisions. I found that combinations of individualist values and process systems resulted in the most complex cognitions. To reiterate, I advocate incongruity only to the extent that practitioners are unable to assess the risks to which their employees are exposed at any given point in time and cannot tolerate either set of risks. When managers assess that the environment especially punishes conformity biases and can absorb the risks of deviation biases, they can shift to congruent combinations of individualist values and outcome systems. When managers assess that the environment especially punishes deviation biases and can absorb the risks of conformity biases, they can shift to congruent combinations of collectivist values and process systems. But once
these assessments are unreliable and/or managers can no longer tolerate either risk, incongruity can serve as a protective shield.

Furthermore, my studies draw attention to a type of thought process—construal shifting—which has been largely unacknowledged in management research. Given the advantages of construal shifting demonstrated in this paper, practitioners may benefit from paying closer attention to how their employees shift between zooming into the small details and zooming out to see the big picture.
CHAPTER 4

BIASES IN EVALUATING CONFORMITY AND DEVIATION BIASES

In Chapters 1-3, I approached my core research question—how can work settings be engineered to enable decision makers to bring down the risks of conformity and deviation biases—from the perspective of the employee. That is, I examined how incongruity provided employees with the flexibility to decide when to conform and when to deviate whereas congruity pushed employees to one of the response paths. This examination suggested that conformity and deviation biases would persist in organizations with congruent combinations of organizational cultures and accountability systems. However, another way that congruity could exacerbate these risks is by encouraging the managers of employees to tolerate (and even reward) those who exhibit these biases. The risks of conformity and deviation biases can be simultaneously reduced only if managers equally penalize both biases—or demonstrate no discernible preference for either. And different combinations of organizational culture and accountability systems can fundamentally shape these managerial preferences.

As I discussed in the previous chapters, managers in collectivist organizations value harmony, interdependence, and not standing out (Goncalo & Staw, 2006). As such, they are likely to actually be favorable to employees who exhibit conformity biases (as conformity facilitates harmony)—and be particularly unfavorable to those who exhibit deviation biases (which deters harmony) (Kim & Markus, 1999). These patterns are likely to emerge especially when collectivist values are coupled with process systems. Process systems inherently hold people accountable for their behaviors (Oliver & Anderson, 1994). Managers are likely to favorably react to employees who conform to
standard practices when they are operating in process systems—they should see conformity as behaviors intended to benefit the organization and deviation. But deviation should be seen as a harmful violation of behavioral standards.

By contrast, managers in individualist organizations value distinctiveness, independence, and standing out (Chatman & Barsade, 1995). As such, they are likely to tolerate employees who exhibit deviation biases (deviation signals willingness to be unique) than employees who exhibit conformity biases (conformity signals lack of uniqueness). And these effects are likely to be further exacerbated when individualist norms are coupled with outcome systems. Outcome systems inherently encourage employees to be innovative and go beyond standard practices to maximize outcomes (Patil et al., 2013; Tetlock & Mellers, 2011b; Tetlock et al., 2013). For this reason, some real-world executives such as that of 3M advocate outcome systems to unleash creativity (Coyne, 1997). Under these systems, managers should thus see deviation as beneficial (deviation indicates a willingness to be creative to increase outcomes) and conformity as harmful (it indicates an unwillingness to be creative) for the organization.

But we should witness no discernible preferences or tolerances for either bias in the incongruent combinations of organizational culture and accountability systems: collectivist culture / outcome accountability and individualist culture / process accountability. In conditions of incongruity, one system primes conformity values and the other, deviation values. As such, managers under incongruity should hold more value pluralistic rather than value monistic preferences (Tetlock, 1986; Tetlock, Peterson, & Lerner, 1996)—and see both conflicting values as equally important.

Based on these arguments, I hypothesize:
Hypothesis 1: Managers in congruent combinations of collectivist values / process accountability would rate employees more favorably when they exhibit conformity rather than deviation biases, and (b) managers in congruent combinations of individualist values / outcome accountability would rate employees more favorably when they exhibit deviation rather than conformity biases.

STUDY 3: METHODS

Sample, Design, and Procedures

To test these two hypotheses, I surveyed a range of working managers from a number of organizations using a scenario study. The study was a 2 (collectivist vs. individualist organization) x 2 (process vs. outcome accountability) x 2 (conformity vs. deviation bias) mixed factorial design. Organizational culture and accountability were between-subjects and employee bias was within-subjects. Participants were randomly assigned to one of the four conditions.

One hundred and fifty-seven managers (62% male) were recruited through Amazon’s Mechanical Turk, an online subject pool representative of the U.S. population (Buhrmester, Kwang, & Gosling, 2011). In order to participate in the study, they had to be employed in the U.S. and manage or supervise at least one subordinate or employee at their current place of employment. Participants on average managed 11 employees (range = 1-230). They took part in the online study in exchange for $2.00.

Participants were asked to assume the role of a mid-level, supervising manager in the sales unit of Synergy Systems International (SSI). They were told that as a manager, they were directly responsible for overseeing a team of 10 salespeople—and that they manage the salespeople on a day-to-day basis, are responsible for their overall performance, and conduct their quarterly performance reviews. As part of the study, they
were to make a series of performance ratings for two of their employees, one who exhibited a conformity bias and other, a deviation bias.

**Manipulations**

**Organizational culture manipulations.** I manipulated organizational culture by telling participants that last month, SSI conducted a survey of their employees about the organization’s culture and I listed the three most frequently appearing items.

In the collectivist conditions, they read:

SSI organizational cultural values can best be described as collectivistic. Last month, SSI conducted a survey of their employees about the organization’s culture. Employees were asked to list what employees valued. The three most frequently appearing items were:

- Maintaining harmonious relationships
- Assimilating with others
- Pursuing organizational goals

These items suggest that people at SSI generally value interdependence, harmony, and finding common ground. A representative quote from one employee at SSI states: “Everyone cares about what ‘we’ can achieve together – not what ‘I’ can achieve alone. We operate as one.”

In the individualist conditions, they read:

SSI organizational cultural values can best be described as individualistic. Last month, SSI conducted a survey of their employees about the organization’s culture. Employees were asked to list what employees valued. The three most frequently appearing items were:

- Maintaining independence
- Being distinct from others
- Pursuing personal goals

These items suggest that people at SSI generally value independence, dissent, and individual expression. A representative quote from one employee at SSI states: “Everyone cares about what ‘I’ can achieve alone – not what ‘we’ can achieve together. We operate as individuals.”
As a manipulation check, I included four items that participants rated on a 7-point Likert scale. The items started with “People at SSI generally value...” and followed with: (a) Cohesion-Independence; (b) Fitting In-Standing Out; (c) Harmony-Dissent; (d) Collective Goals-Personal Goals (α = .94). Lower numbers reflect collectivist norms and higher numbers, individualist norms.

**Accountability manipulations.** I manipulated accountability by providing participants with evaluation forms of SSI salespeople adapted from real-world evaluation forms described by Behrman and Perreault (1982) (see Figure 14). The evaluation forms for the process accountability conditions had items that captured sales behaviors (e.g., providing information; using technological knowledge; making sales presentations; controlling expenses). The evaluation forms for the outcome accountability condition had items that purely captured end sales outcomes (e.g., high market share, high level of dollar sales, exceeds sales targets).

They were told that supervisors have to complete these forms for each of their salespeople at the end of the sales quarter and that these ratings were on a 5-point scale from 1 “needs improvement” to 5 “outstanding.” The introductions to these forms varied depending on the condition.

The process accountability condition began with the text:

SSI monitors the behaviors of their salespeople rather than the monetary value that they bring to SSI at the end of the evaluation period.

The outcome accountability condition began with the text:

SSI monitors the final monetary value that they bring to SSI at the end of the evaluation period rather than the behaviors of their salespeople.

I included three items as a manipulation check which they had to rate on a 7-point Likert scale. The prompt was “SSI...” and the items were: (a) Holds salespeople
accountable for process-Holds salespeople accountable for bottomline results; (b) Values standard decision procedures and protocols—Devalues standard decision procedures and protocols; (c) Evaluates how salespeople go about doing their jobs—Evaluates the end outcomes of salespeople (α = .84). Lower numbers reflect process accountability and higher numbers, outcome accountability.

**Employee bias.** Participants were told that they were getting ready to complete evaluation forms for two employees. They were asked to read notes that they had collected for each of the employees; these were notes collected from co-workers as well as other managers who had observed the employees’ behaviors. There were two employees: Toby Ryans who exhibited conformity biases and Frank Wolfe who exhibited deviation biases. The order of the employees was counterbalanced.

For Toby Ryans, they read the following notes:

You are generally satisfied with Toby’s performance. But you have noticed that Toby almost always uses the same standard selling strategies that his colleagues have been using for years and that have become pretty widely accepted at SSI. Sometimes you think it would be more beneficial if he deviated from these practices.

For example, Toby was recently interacting with a new client. Instead of “thinking outside the box” and thinking of creative ways in which SSI could cater to the unique needs of this new client, Toby just stuck to the same wining and dining venues, product pitching techniques, and client presentation rituals that SSI salespeople have been using for traditional clients. You think that Toby could have got much more business from the new client if he adapted some strategies to better serve the client.

For Frank Wolfe, they read the following notes:

You are generally satisfied with Frank’s performance. But you have noticed that Frank almost always deviates from the standard selling strategies that his colleagues have been using for years and that have become pretty widely accepted at SSI. Sometimes you think it would be more beneficial if he actually conformed to these practices.
For example, Frank was recently interacting with a new client. Instead of just following what people have already tested in the company and what has already proven to work, Frank chose totally different wining and dining venues, product pitching techniques, and client presentation rituals that SSI salespeople have never used before for its clients. You think that Frank could have got much more business from the new client if he just stuck to the standard strategies to better serve the client.

Measures

Participants filled out the following measures for both employees.

**Performance ratings.** I had two sets of performance ratings. The first was a measure of overall performance adapted from Burris (2012). The measure consisted for three items: (a) How would you rate [employee’s] performance based on what you know?; (b) If a position were available, I’d recommend [employee] for a promotion; (c) If [employee] was promoted, I would expect him to perform in the new position (α = .80 for conformity bias employee; α = .86 for deviation bias employee). The first item was rated on a 7-point scale (weak performance–strong performance) and the last two items were rated on a 7-point scale (strongly disagree–strongly agree).

The second measure was one of a composite of general managerial decisions. This measure consisted of 6 items that participants rated on a 7-point bipolar scale: (a) Decrease [employee’s] salary–increase [employee’s] salary; (b) Demote [employee]–Promote [employee]; (c) Decrease [employee’s] responsibilities at SSI–Increase [employee’s] responsibilities at SSI; (d) Reassign [employee] to one of your less important projects–Assign [employee] to one of your more important projects; (e) Very likely to prevent [employee] from receiving a prestigious company award–Very likely to nominate [employee] for a prestigious company award; (f) Very likely to fire [employee]–Very likely to retain [employee] (α = .81 for conformity bias employee; α = .89 for deviation bias employee).
Promotion decision. Participants were then told that they were only allowed to promote one of the employees, Toby Ryans or Frank Wolfe. They were asked to select whether they would promote Toby, Frank, or neither of the employees.

Pro-organizational motivation. As another way to measure favorability, I also measured pro-organizational motivation using six items adapted from Burris (2012). Items were rated on a 7-point scale (strongly disagree-strongly agree). The items were: (a) The organization’s needs are important to [employee]; (b) [Employee] really looks out for what is important to this organization; (c) [Employee] will go out of his way to benefit the organization; (d) [Employee] is very concerned about improving the organization; (e) [Employee] is committed to the organization; (f) [Employee] is emotionally attached to the organization (α = .92 for conformity bias employee; α = .95 for deviation bias employee).

STUDY 3: RESULTS AND DISCUSSION

Table 5 contains means and standard deviations for all measures organized by experimental condition. To check if my manipulations had the desired effects, I ran a 2 x 2 MANOVA. The organizational culture manipulation had a significant effect on the respective manipulation check \((F(1, 153) = 161.49, p < .01)\). The collectivist conditions significantly differed from the individualist conditions (M = 2.43 vs. M = 5.22). The accountability manipulation had a significant effect on the respective manipulation check \((F(1, 153) = 94.87, p < .01)\). The process accountability conditions significantly differed from the outcome accountability conditions (M = 2.75 vs. M = 5.04). No other effects were significant.

To recap, Hypothesis 1 stated that managers in the congruent conditions would rate the two employees differently such that managers in the collectivist culture / process accountability conditions would demonstrate a preference for the employee who exhibits
a conformity bias and managers in the individualist culture / outcome accountability conditions would prefer the employee who exhibits a deviation bias. However, those in the incongruent conditions would not rate these two employees differently.

To test Hypothesis 1, I compared the means of performance ratings for both employees for each combination of organizational culture and accountability system. Figure 15 displays the results for the overall performance ratings. As expected, managers in the collectivist organization / process accountability combinations rated the conforming employee higher than the deviating employee ($M = 4.56$ vs. $M = 3.26$), ($t(41) = 5.13, p < .01$). Managers in the individualist organization / outcome accountability combinations rated the deviating employee higher than the conforming employee ($M = 4.59$ vs. $M = 4.09$), ($t(35) = -2.01, p = .05$). But managers in the incongruent combinations demonstrated no significant difference in ratings of the conforming and deviating employees [($M = 4.15$ vs. $M = 3.99$), ($t(38) = .63, p > .10$) for collectivist organization / outcome accountability and ($M = 4.18$ vs. $M = 3.99$), ($t(39) = .40, p > .10$) for individualist organization / process accountability].

Similar patterns emerged for the composite of general managerial decisions (see Figure 16). Managers in the collectivist organization / process accountability combinations made more favorable decisions for the conforming vs. deviating employee ($M = 4.54$ vs. $M = 3.58$, $t(41) = 4.53, p < .01$). Managers in the individualist organization / outcome accountability combinations made more favorable decisions for the deviating vs. conforming employee ($M = 4.47$ vs. $M = 4.07$, $t(35) = -2.14, p < .05$). But, again, managers in the incongruent combinations were equally (un)favorable to both employees [($M = 4.27$ vs. $M = 4.17$), ($t(38) = .55, p > .10$) for collectivist norms / outcome accountability and ($M = 4.25$ vs. $M = 4.09$), ($t(39) = .86, p > .10$) for individualist norms / process accountability].
Next, I looked at the counts for the managers’ promotion decisions. I ran nonparametric binomial tests to see if the percentage of managers who chose to promote the employee who exhibited conformity biases vs. the employee who exhibit the deviation biases significantly differed (test proportion = .50). Table 6 displays the results. As we can see here, there was a significant difference in preferences in the collectivist organization / process accountability conditions. These managers chose the conforming employee over the deviating employee (48.28% vs. 20.69%, $p < .05$). There was a marginally significant difference in preferences in the individualist norms / outcome accountability conditions. These managers chose the deviating employee over the conforming employee (29.33% vs. 56.00%, $p = .10$). A chi-square test revealed a significant difference in the proportion of participants who supported the deviating employee (chi-square = 7.87, d.f. = 1, $p < .01$). But there was no significant difference in preferences for the incongruent conditions [(34.57% vs. 44.44%, $p > .10$ in the collectivist norms / outcome accountability conditions) and (31.33% vs. 31.33%, $p > .10$ in the individualist norms / process accountability conditions)].

I ran a similar analysis for pro-organizational motives, comparing the means for each of the four combinations. Figure 17 graphs the results. I found that managers in the collectivist organization / process accountability conditions viewed the employee who exhibited conformity biases as more pro-organizational than the employee who exhibited deviation biases ($M = 4.53$ vs. $M = 3.63$, $t(41) = 3.20$, $p < .01$). The opposite was true for managers in the individualist organization / outcome accountability conditions. These managers thought the employees who exhibited deviation biases were more pro-organizational ($M = 4.45$ vs. $M = 3.94$, $t(35) = -2.00$, $p = .05$). However, yet again, we see no significant differences in assessments in the incongruent conditions [(M = 4.27 vs. M = 4.02), ($t (38) = .91$, $p > .10$) for collectivist organization / outcome accountability and
(M = 4.15 vs. M = 3.82), \((t (39) = 1.38, p > .10)\) for individualist organization / process accountability).

These findings cumulatively suggest that Hypothesis 1 was largely supported.

**GENERAL DISCUSSION**

This study demonstrated the potential for incongruity to prevent managers from exhibiting biases in evaluating conformity and deviation biases. Managers in incongruity favored neither bias. However, future research should tease apart whether those in the incongruent combinations are either penalizing both biases equally (i.e., they are intolerant of both) or rewarding both biases equally (i.e., they are simply indifferent to both). In Table 6, there was an unexpectedly high proportion of managers who chose between the two employees rather than choosing neither of the employees (32 / 39 managers in the collectivist organization / outcome accountability conditions and 26 / 40 in the individualist organization / process accountability conditions). The data are thus currently insufficient to draw any definitive conclusions: managers under incongruity may show no preference between the biases but it is unclear whether they regard both these biases more positively or negatively.

Nevertheless, this study takes a step towards making at least three distinct theoretical contributions. First, most research on values and value preferences has taken a dispositional approach (e.g., Grant & Rothbard, 2014; Schwartz & Bilsky, 1987; Tetlock, 1986). This study looks at how value preferences can be shaped by work contexts. Second, past research suggests that because people in collectivist settings are more concerned with fostering relationships than are people in individualist settings (Hui et al., 1991), they tend to be more generous in evaluating others (assuming the targets of evaluation are in their in-group, Gómez et al., 2000). My study qualifies this notion by pointing out that managers in collectivist organizations are tolerant only to the
extent that employees exhibit values that are consistent with collectivism. Managers were not afraid to penalize employees who exhibited deviation biases. Finally, scholars have noted that some organizations do not necessarily want or value creativity (Staw, 1995). This study identifies this type of organization whose managers are likely to not tolerate deviant endeavors: those with strong collectivist values and process-oriented systems.

In addition to deciphering whether managers in incongruent conditions are equally tolerant or intolerant of employees who exhibit conformity or deviation biases, future research can examine the mediating mechanisms that explain why the patterns I found in this study emerged. For example, managers under combinations of collectivist organizations/ process accountability may find conforming employees more competent or even likable whereas managers under combinations of individualist organizations/ outcome accountability may find deviating employees to be more so. Alternatively, managers could purely be making cost-benefit analyses: managers under collectivist organizations/ process accountability incur socio-political costs when employees excessively deviate and managers under individualist organizations/ outcome accountability incur similar costs when employees excessively conform.

Future research should also supplement this scenario study with a field study that increases the external validity of my findings. A multi-unit organization that has variability in performance/ accountability metrics and subunit cultures would be ideal. Researchers can obtain objective or subjective measures of accountability and culture and promotion/ performance evaluation decisions can be tracked over time. We should see a disproportionate number of conformist employees or deviant employees being evaluated favorably in the congruent combinations.
CONCLUSION

One of the main objectives of my dissertation was to demonstrate the importance of shedding insights into the conformity-deviation balancing act that employees confront in organizations. During the dissertation process, I learned that scholarship is in and of itself a balancing act on a number of dimensions. For one, strong theoretical contributions stem from blending diverse theories but powerful contributions also tend to be precise and parsimonious. My initial drafts of my dissertation during the proposal phase attempted to integrate a multitude of theories; I explained a wide range of employee behaviors that loosely related to under- and over-adapting the status quo. Although the theoretical models were comprehensive, the lack of precision diluted my arguments and obscured the logic of my arguments. It was not until the later phases that I narrowed down my phenomenon of interest to the decisions that employees often have to make to conform to or deviate from the status quo. Starting with this phenomenon, I began generating the idea of incongruity to explain the conditions under which employees would make better conformity-deviation decisions. At this stage, I began receiving feedback that I was contributing to the field.

Empirical testing is also a balancing act. I had to design experiments that were rich in terms of creating a psychologically realistic setting but also elegant and simplistic enough to explain to an audience. My initial runs of the J.C. Penney experiment were filled with extraneous information and details that not only weakened the internal validity of the experiments but also made it difficult for the participants themselves to process the information. Conducting experiments that work requires enormous perspective-taking and the ability to think like the participant, but it is also necessary to get accurate and realistic measures of the variables of interest. I was attempting to measure construal shifting (a fairly demanding form of cognition), and I needed variance
in this measure. It took a while for me to adjust the experiments to bring the cognitive load for the participants to an appropriate level while also getting reliable measures of cognition.

Taking a step back, I also realized that the entire research process requires shifting between the abstract and concrete—and balancing the need to be creative while also practical. Idea generation requires looking at the big picture, integrating multiple theories, and seeing where your arguments fit into the larger literature but execution of studies requires acute attention to detail, patience, and perseverance. And after the results are generated, it is also necessary to see how the results support—or fail to support—the theoretical arguments you are trying to make and identify ways in which the theory can be strengthened to explain the findings. Although the research process is cognitively demanding, it is highly rewarding to be able to find answers to questions that spark your curiosity.

There are at least three different directions I want to take my research. The first is to study some of the ideas presented here in the field. As I discussed in Chapter 2, I chose to test my hypotheses using a laboratory methodology so that I could decrease the hindsight bias. Of course, laboratory experiments increase the internal validity of my findings but they also come at the cost of external validity. As such, to bolster the external validity of my tests, I plan to study the effects of construal shifting on real-world decisions to conform to or deviate from the status quo. Of note, I am currently in the process of studying the decisions of Army Intelligence officers who have to participate in training simulations as part of their recertification requirements. These intelligence officers have to make decisions whether to conform to or deviate from standard protocols based on a host of factors including the level of threat, government relationships, the terrain, and weather conditions. I am particularly interested in digging
deeper into the construct of construal shifting by examining whether people blend or shift between the concrete and abstract, how frequently they shift between the two vantage points, and when they decide to move from one point to the other. The types of decisions these intelligence officers have to make—and the type of information they have to process—enable me to study construal shifting under a more microscopic lens.

Second, I would like to study construal shifting at the team level. In particular, I would like to examine how the composition of teams—i.e., whether they are primarily composed of abstract thinkers, concrete thinkers, or a blend of both—affects the team’s ability to balance opposing risks. I could study conformity-deviation decisions as the dependent variable, but I could also study other conflicting demands. For example, innovation is a two-step process requiring novel idea generation (thinking outside-the-box) and implementation and execution of the idea (conforming to current bureaucratic realities) (Miron-Spektor, Erez, & Naveh, 2011a). Similar to Bunderson and Sutcliffe’s (2002) distinction between interpersonal and intrapersonal functional diversity, I can also examine whether teams better balance conflicting demands if they are composed of equal numbers of abstract and concrete processors or composed of people who are strong construal shifters. Finally, I can examine team members’ expertise as a moderator of the link between construal shifting and balancing conflicting demands. Competing arguments can be made with respect to the effects of expertise. One argument is that construal shifting provides little added benefit to balancing conflicting demands for people who are experts—overpracticed people tend to respond habitually or “mindlessly” to their tasks (Dane, 2010; Langer & Imber, 1979). The other argument, however, is that people who are novices will not be able to effectively blend the concrete and abstract to extract the benefits of construal shifting (Vallacher & Wegner, 1987). Given these
competing arguments, there is likely an inverted U-curve in which the benefits of construal shifting peak at moderate levels of expertise.

Third, I want to explore other ways to generate incongruity in the workplace. In this dissertation, I examined combinations of organizational cultures and distributive-justice rules and organizational cultures and accountability systems. However, there are other ways in which incongruity can be created. For example, I am interested in examining how the extent to which leaders engage in protectionist or paternalistic behaviors interacts with the extent to which leaders grant autonomy to shape employees’ susceptibilities to conformity or deviation biases. Protectionist or paternalistic behaviors refer to the degree to which leaders shield employees from harm and nurture their well-being (Gelfand et al., 2007; Ouchi, 1981; Pellegrini & Scandura, 2008). Autonomy refers to the degree to which leaders provide employees with the freedom and discretion to determine what, how, and when to perform their work activities (Hackman & Oldham, 1976; Morgeson & Humphrey, 2006).

I predict that managers who feel protected but experience low autonomy are likely to exhibit strong conformity biases. Employees under paternalistic leaders tend to demonstrate loyalty to sacred practices in the organization in return for the protection they are receiving (Aycan et al., 2000; Pellegrini & Scandura, 2006). Having low discretion in determining how to conduct work activities further exacerbates these effects. On the opposing end, I hypothesize that employees who have high degrees of autonomy but experience low degrees of protection are likely to exhibit strong deviation biases. This combination can liberate employees but it also leaves them without a “safety net” in the event of failure, causing them to desperately search for practices that will enable them to perform well. However, I suspect that employees are better positioned to bring down both risks when they experience high degrees of autonomy and protection.
At this point, employees achieve optimal distinctiveness (Brewer & Roccas, 2001; Brewer, 1991): they feel assimilated with and distinct from their organizations and leaders.

I am also interested in examining how incongruous combinations of self-reliant and prosocial norms can optimize help-seeking and help-giving dynamics within an organization. Integrating theories on adult attachment (Bartholomew & Horowitz, 1991) and self-reliance and giving (Nadler & Chernyak-Hai, 2014), I hypothesize that employees in (a) combinations of high prosocial norms/low self-reliance norms are likely to engage in excessive help-giving and have an excessive dependency on help-taking; (b) combinations of low prosocial norms/high self-reliance norms are likely to withdraw help-giving and engage in counterproductive rejection of help; (c) combinations of high prosocial norms/high self-reliance norms are likely to strike an optimal dynamic between help-giving and help-taking such that they feel both secure and autonomous in their relationships.

In sum, I hope to launch a portfolio of research that examines (a) the different ways in which incongruity can be more or less beneficial to balancing competing demands, and (b) the underlying cognitive and motivational processes that enable managers and employees to bring down these opposing sets of risks.
<table>
<thead>
<tr>
<th>Condition</th>
<th>Collectivism-Individualism ($\alpha = .99$)</th>
<th>Process-Outcome Accountability ($\alpha = .98$)</th>
<th>Achievement Score ($r_a$)</th>
<th>Task Predictability ($R_e$)</th>
<th>Consistency ($R_s$)</th>
<th>Correlation ($G$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collectivist, process accountability, conformity risk ($n = 28$)</td>
<td>1.19 (.32)</td>
<td>1.39 (1.07)</td>
<td>.60 (.07)</td>
<td>.93 (.00)</td>
<td>.96 (.05)</td>
<td>.68 (.10)</td>
</tr>
<tr>
<td>Collectivist, outcome accountability, conformity risk ($n = 26$)</td>
<td>1.05 (.15)</td>
<td>6.88 (1.71)</td>
<td>.69 (.08)</td>
<td>.93 (.00)</td>
<td>.91 (.04)</td>
<td>.81 (.08)</td>
</tr>
<tr>
<td>Individualist, process accountability, conformity risk ($n = 28$)</td>
<td>7.74 (.40)</td>
<td>1.18 (1.48)</td>
<td>.67 (.09)</td>
<td>.93 (.00)</td>
<td>.94 (.05)</td>
<td>.77 (.11)</td>
</tr>
<tr>
<td>Individualist, outcome accountability, conformity risk ($n = 22$)</td>
<td>7.60 (.55)</td>
<td>7.55 (1.74)</td>
<td>.69 (.09)</td>
<td>.93 (.00)</td>
<td>.90 (.05)</td>
<td>.81 (.07)</td>
</tr>
<tr>
<td>Collectivist, process accountability, deviation risk ($n = 25$)</td>
<td>1.13 (.33)</td>
<td>1.28 (1.74)</td>
<td>.24 (.07)</td>
<td>.54 (.00)</td>
<td>.91 (.12)</td>
<td>.47 (.11)</td>
</tr>
<tr>
<td>Collectivist, outcome accountability, deviation risk ($n = 28$)</td>
<td>1.05 (.15)</td>
<td>7.11 (1.7)</td>
<td>.20 (.06)</td>
<td>.54 (.00)</td>
<td>.84 (.09)</td>
<td>.44 (.11)</td>
</tr>
<tr>
<td>Individualist, process accountability, deviation risk ($n = 27$)</td>
<td>7.75 (.47)</td>
<td>1.07 (1.27)</td>
<td>.23 (.05)</td>
<td>.54 (.00)</td>
<td>.91 (.08)</td>
<td>.46 (.07)</td>
</tr>
<tr>
<td>Individualist, outcome accountability, deviation risk ($n = 25$)</td>
<td>7.84 (.33)</td>
<td>7.64 (0.70)</td>
<td>.14 (.06)</td>
<td>.54 (.00)</td>
<td>.78 (.12)</td>
<td>.32 (.11)</td>
</tr>
</tbody>
</table>

*Note. Standard deviations are in parentheses.*
**TABLE 2: Construal Shifting Coding Scheme (Study 2)**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Conceptual Description</th>
<th>Study-Relevant Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 <strong>(High)</strong></td>
<td>Participant considers how concrete aspects of the decision affect abstract aspects <strong>AND</strong> how abstract aspects should shape concrete details. Both concrete-to-abstract and abstract-to-concrete links are strong.</td>
<td>Participant considers whether the everyday low pricing strategy is meeting, or failing to meet, the global issues the bookstore faces, declining customer visits, competition from online retailers, and lingering effects of the 2008 economic recession <strong>AND</strong> considers what these abstract issues indicate that the bookstore could do besides the everyday low pricing strategy. Both these links are strong.</td>
</tr>
<tr>
<td>4</td>
<td>Participant considers how concrete aspects of the decision affect abstract aspects <strong>AND</strong> how abstract aspects should shape concrete details. Both concrete-to-abstract and abstract-to-concrete links are strong. But either one or both the concrete-to-abstract or abstract-to-concrete links are weak.</td>
<td>Participant considers whether the everyday low pricing strategy is meeting, or failing to meet, the global issues the bookstore faces, declining customer visits, competition from online retailers, and lingering effects of the 2008 economic recession <strong>AND</strong> considers what these abstract issues indicate that the bookstore could do besides the everyday low pricing strategy. But either one or both the links are weak.</td>
</tr>
<tr>
<td>3 <strong>(Moderate)</strong></td>
<td>Participant considers how concrete aspects of the decision affect abstract aspects <strong>OR</strong> how abstract aspects should shape concrete details. The concrete-to-abstract or abstract-to-concrete link is strong.</td>
<td>Participant considers whether the everyday low pricing strategy is meeting, or failing to meet, the global issues the bookstore faces, declining customer visits, competition from online retailers, and lingering effects of the 2008 economic recession <strong>OR</strong> considers what these abstract issues indicate that the bookstore could do besides the everyday low pricing strategy. The link that is chosen is strong.</td>
</tr>
<tr>
<td>2</td>
<td>Participant considers how concrete aspects of the decision affect abstract aspects <strong>OR</strong> how abstract aspects should shape concrete details. But the concrete-to-abstract or abstract-to-concrete link is weak.</td>
<td>Participant considers whether the everyday low pricing strategy is meeting, or failing to meet, the global issues the bookstore faces, declining customer visits, competition from online retailers, and lingering effects of the 2008 economic recession <strong>OR</strong> considers what these abstract issues indicate that the bookstore could do besides the everyday low pricing strategy. But the link that is chosen is weak.</td>
</tr>
<tr>
<td>1 <strong>(Low)</strong></td>
<td>Participant only considers the concrete aspects of the decision <strong>OR</strong> the abstract aspects. Participant response demonstrates little to no signs of shifting from the concrete to abstract or abstract to concrete.</td>
<td>Participant only considers the pros and cons of the everyday low pricing strategy <strong>OR</strong> the global issues the bookstore faces, declining customer visits, competition from online retailers, and lingering effects of the 2008 economic recession.</td>
</tr>
</tbody>
</table>
TABLE 3: Examples of Construal Shifting Ratings (Study 2)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (High)</td>
<td>Everyday low pricing is not addressing the largest problems the bookstore faces. It seems the bookstore’s main consumer base came from the success of previous pricing strategy and that was not what needed to be changed, since now that that has been changed the bookstore has declined in performance and lost its main consumer base. [concrete→abstract] The bookstore needs to maintain its previous pricing strategy to keep its current consumer base, but to improve its performance and increase customer visits, compete with online retailers, and remain a competitive place for those that are frugal, [abstract issues] I believe the bookstore should put a lot of its money into improving the store’s inside appearance, perhaps remodeling, redecorating, including a cafe where students will visit the bookstore to study and eat as well as purchase books and merchandise, and so forth [concrete ways to address abstract issues]. Additionally, the store should continue reducing prices to be low, to be competitive with online retailers and remain appealing to those frugal from the recession, but include the marketing strategies of sales, high low pricing and ending prices in .99, so as not to make consumers believe they are being cheated of cheaper items. While it may hurt the bookstore in the beginning to continue high-low pricing marketing strategies but have low prices, and to put a lot of money into inside appearance improvement, the changes will have long term positive effects that will make the changes worthwhile. (rating: 5.00)</td>
</tr>
<tr>
<td>4</td>
<td>This solution does not seem to directly address the problem. Online retailers like Amazon have consistently lower prices than bookstores, and trying to compete with them will not ultimately work. People would rather order low-price books online than go to a store to buy low-priced books. It may help get the customers feeling more frugal in, but only if they already prefer the experience of shopping in a store. [concrete→abstract] So it comes back to: they need to increase the in-store experience. [abstract issue] Reducing prices only works if you can get customers into the store; the words &quot;sale&quot; and &quot;clearance&quot; clearly get people into the store (as seen when other college bookstores attempted this strategy; students love sales). The pricing seems gimmicky (dollar-store-like), though that’s just because as consumers we are used to .99 rather than .00. Not showing the suggested retail price may seem more honest, as the list is partly fictional, but consumers don’t know that, and telling them they’re getting low prices but not allowing them to compare seems like a not good idea (less &quot;transparency&quot;). [explains how ELP strategy addresses abstract issue but doesn’t propose anything new] Ultimately, if the team of employees does not agree, this plan will not be implemented and integrated well into the bookstore community, which seems to be one of the major things the store has going for it. (rating: 4.00)</td>
</tr>
<tr>
<td>3 (Moderate)</td>
<td>If the bookstore was to lower their prices by 40 percent all around, they would still probably not beat some of the prices online [identifies abstract issue: online competition]. For example, you can save a lot of money on Amazon.com. Moreover, even if they do people use online buying because it is so much more convenient. Furthermore, the reason most people go in a lot of stores is because they see the clearance or sale sign outside the door and want to go in and buy something or browse. Normally, browsing leads to buying. I do not think eliminating sales would help bring customers into the stores. Maybe if they opened a coffee shop in the store, or offered special deals once a month to customers or to school students would be a better idea [identifies concrete ways to address abstract issue]. If they sold textbooks at 40 percent lower, however, that would be another story. Or if they had a company where you could buy and then sell back fairly easy. (rating: 3.33)</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>2</th>
<th>The current decline in the Drexel bookstore is not exceptional. We have seen many bookstores begin to fade as online sellers have become more popular and the advent of nooks and iPads where consumers can simply read their information digitally. [identifies abstract issue] I believe that continuing with the everyday low price is a good option but that this does not mean necessarily removing the words &quot;sale&quot; and &quot;clearance&quot; because a 40% discount is most definitely a sale. Seeing these words coupled with the higher manufacturing price listed on the books will make students/customers actually feel as if they are getting a deal and that is really what counts. The article from the student newspaper, showed that students were &quot;pissed off&quot; because they felt like they were no longer getting deals when in actuality they may have been coming out better than before. Returning the &quot;sale&quot; signs may reignite a bit of consumer confidence in the bookstore. I am unsure regarding the switch from .99 to .00 as ending prices. I truly don't think it matters that much. I've never been super excited by seeing .99 at the end of a price because I'm sure that once I pay taxes, that .99 will become irrelevant. I don't think that ending prices are really that important in making consumers want to buy things. [identifies how concrete issues address abstract issue] (rating: 2.33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Low)</td>
<td>I think that the messaging should remain the same, because it does tell people that there is a change &quot;Everyday Low pricing&quot; is a smart move. However, people need to actually see such a sale change on a daily basis and that would need to include a level of showing price comparison of some caliber. If that means, visibly showing them the price change that is being made to product with the 40% reduction, go for it. It is a whole lot smarter than just simply putting a price down. Also, the rounding to the 0 does show a very visible choice in not trying to rip people off which is also helpful. [purely concrete] (rating: 1.00)</td>
</tr>
</tbody>
</table>

It is evident that the current and traditional strategies are not working. The data shows decline and without change, it is unlikely that Drexel will be able to make a turn around. While the new proposal is bold, it is refreshing and completely changes the "playing field". It distinguishes itself from other bookstores through these "subtle" tactics and may help increase customer visits even if other factors such as decor or amenities are not as competitive as nearby bookstores. [purely abstract] (rating: 1.00)


**TABLE 4: Means and Standard Deviations (Study 2)**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Collectivism-Individualism ($α = .99)</th>
<th>Process-Outcome Accountability ($α = 1.00)</th>
<th>Decision to Continue/ Launch ELP Strategy (out of 4 binary decisions)</th>
<th>Investment to Continue/Launch ELP Strategy (out of $500,000)</th>
<th>Construal Shifting (ICC = .90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collectivist, process accountability, conformity risk ($n = 50)</td>
<td>1.08 (.24)</td>
<td>1.02 (.14)</td>
<td>2.10 (.95)</td>
<td>$311,500.00 (141,050.18)</td>
<td>1.44 (.46)</td>
</tr>
<tr>
<td>Collectivist, outcome accountability, conformity risk ($n = 50)</td>
<td>1.04 (.18)</td>
<td>7.85 (.64)</td>
<td>1.44 (1.09)</td>
<td>$185,400.00 (172,853.72)</td>
<td>1.67 (.91)</td>
</tr>
<tr>
<td>Individualist, process accountability, conformity risk ($n = 50)</td>
<td>7.78 (.46)</td>
<td>1.02 (.14)</td>
<td>1.42 (1.05)</td>
<td>$178,400.00 (158,939.21)</td>
<td>1.80 (1.00)</td>
</tr>
<tr>
<td>Individualist, outcome accountability, conformity risk ($n = 50)</td>
<td>7.91 (.23)</td>
<td>7.98 (.14)</td>
<td>1.41 (1.06)</td>
<td>$144,705.88 (148,220.82)</td>
<td>1.56 (.81)</td>
</tr>
<tr>
<td>Collectivist, process accountability, deviation risk ($n = 49)</td>
<td>1.17 (.38)</td>
<td>1.09 (.30)</td>
<td>1.61 (1.26)</td>
<td>$198,367.35 (173,016.70)</td>
<td>1.79 (.87)</td>
</tr>
<tr>
<td>Collectivist, outcome accountability, deviation risk ($n = 50)</td>
<td>1.05 (.22)</td>
<td>7.90 (.47)</td>
<td>1.22 (1.30)</td>
<td>$169,900.00 (179,695.01)</td>
<td>1.85 (1.12)</td>
</tr>
<tr>
<td>Individualist, process accountability, deviation risk ($n = 51)</td>
<td>7.62 (.67)</td>
<td>1.13 (.39)</td>
<td>1.80 (1.11)</td>
<td>$235,460.78 (169,751.78)</td>
<td>2.38 (1.13)</td>
</tr>
<tr>
<td>Individualist, outcome accountability, deviation risk ($n = 50)</td>
<td>7.82 (.47)</td>
<td>7.88 (.59)</td>
<td>2.64 (1.10)</td>
<td>$362,800.00 (149,670.25)</td>
<td>1.46 (.56)</td>
</tr>
</tbody>
</table>

*Notes. Standard deviations are in parentheses. “ELP” stands for everyday low pricing.*

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TABLE 5: Means and Standard Deviations (Study 3)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Collectivism-Individualism (α = .94)</th>
<th>Process-Outcome Accountability (α = .84)</th>
<th>Overall Performance ~ Conformity Bias ~ Conformity Bias (α = .81)</th>
<th>General Managerial Decisions ~ Conformity Bias (α = .92)</th>
<th>Prosocial Motivation ~ Conformity Bias ~ Conformity Bias (α = .92)</th>
<th>Overall Performance ~ Deviation Bias ~ Deviation Bias (α = .86)</th>
<th>General Managerial Decisions ~ Deviation Bias ~ Deviation Bias (α = .89)</th>
<th>Prosocial Motivation ~ Deviation Bias ~ Deviation Bias (α = .95)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collectivist organization, process accountability (n = 42)</td>
<td>2.22 (1.44)</td>
<td>2.46 (1.43)</td>
<td>4.56 (1.02)</td>
<td>4.54 (.85)</td>
<td>4.53 (1.16)</td>
<td>3.26 (1.16)</td>
<td>3.58 (.93)</td>
<td>3.64 (1.26)</td>
</tr>
<tr>
<td>Collectivist organization, outcome accountability (n = 39)</td>
<td>2.66 (1.17)</td>
<td>4.97 (1.31)</td>
<td>4.15 (.89)</td>
<td>4.27 (.58)</td>
<td>4.26 (.82)</td>
<td>3.99 (1.25)</td>
<td>4.17 (1.03)</td>
<td>4.02 (1.27)</td>
</tr>
<tr>
<td>Individualist organization, process accountability (n = 40)</td>
<td>5.08 (1.27)</td>
<td>3.06 (1.42)</td>
<td>4.18 (.86)</td>
<td>4.25 (.63)</td>
<td>4.15 (1.03)</td>
<td>4.08 (1.09)</td>
<td>4.10 (.93)</td>
<td>3.82 (1.26)</td>
</tr>
<tr>
<td>Individualist organization, outcome accountability (n = 36)</td>
<td>5.39 (1.59)</td>
<td>5.04 (1.61)</td>
<td>4.09 (1.08)</td>
<td>4.07 (.76)</td>
<td>3.94 (1.15)</td>
<td>4.59 (.95)</td>
<td>4.47 (.80)</td>
<td>4.45 (1.08)</td>
</tr>
</tbody>
</table>

*Note*. Standard deviations are in parentheses.
<table>
<thead>
<tr>
<th></th>
<th>Collectivist Organization / Process Accountability</th>
<th>Collectivist Organization / Outcome Accountability</th>
<th>Individualist Organization / Process Accountability</th>
<th>Individualist Organization / Outcome Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee who exhibits conformity bias</td>
<td>21 (48.28%)</td>
<td>14 (34.57%)</td>
<td>13 (31.33%)</td>
<td>11 (29.33%)</td>
</tr>
<tr>
<td></td>
<td>$p &lt; .05$</td>
<td>$p &gt; .10$</td>
<td>$p &gt; .10$</td>
<td>$p = .10$</td>
</tr>
<tr>
<td>Employee who exhibits deviation bias</td>
<td>9 (20.69%)</td>
<td>18 (44.44%)</td>
<td>13 (31.33%)</td>
<td>21 (56.00%)</td>
</tr>
<tr>
<td>Neither employee</td>
<td>12 (27.59%)</td>
<td>7 (17.28%)</td>
<td>14 (33.73%)</td>
<td>4 (10.67%)</td>
</tr>
</tbody>
</table>

TABLE 6: Promotion Decisions (Study 3)
FIGURE 1: Distributive Justice and Organizational Cultural Systems and Risks of Conformity and Deviation Biases

Tolerance of Hierarchies via Distributive Principles

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Egalitarian-collectivist systems</strong></td>
<td></td>
</tr>
<tr>
<td>Trigger prevention states (P1)</td>
<td></td>
</tr>
<tr>
<td>Likelihood of system being sustained: <em>High</em> (P7a, 8a)</td>
<td></td>
</tr>
<tr>
<td><strong>Egalitarian-individualist systems</strong></td>
<td></td>
</tr>
<tr>
<td>Shift between prevention and promotion states (P3a)</td>
<td></td>
</tr>
<tr>
<td>Likelihood of system being sustained: <em>Low</em> (P7, P8)</td>
<td></td>
</tr>
<tr>
<td><strong>Meritocratic-collectivist systems</strong></td>
<td></td>
</tr>
<tr>
<td>Shift between prevention and promotion states (P3b)</td>
<td></td>
</tr>
<tr>
<td>Likelihood of system being sustained: <em>Low</em> (P7, P8)</td>
<td></td>
</tr>
<tr>
<td><strong>Meritocratic-individualist systems</strong></td>
<td></td>
</tr>
<tr>
<td>Trigger promotion states (P2)</td>
<td></td>
</tr>
<tr>
<td>Likelihood of system being sustained: <em>High</em> (P7b, P8b)</td>
<td></td>
</tr>
</tbody>
</table>

Prevention Focus
- Duties/obligations
- Vigilance
- Risk-aversion

Risk of conformity bias

Reduce risks of both biases

Risk of deviation bias

P4

P6

P5
FIGURE 2: Organizational Cultural Systems and Vulnerabilities to Conformity and Deviation Biases

**STEP 1**
Ratings of high school applicants are provided to participants.

**STEP 2**
Participant makes performance prediction.

**STEP 3**
Participant receives “real” performance level (from cue-criterion structure).

<table>
<thead>
<tr>
<th>Exposure to risk of conformity bias</th>
<th>Cue 3 = 1</th>
<th>Cue 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R = .93$</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Optimal weights: 30-30-40</td>
<td>1/1/3</td>
<td>3/3/3</td>
</tr>
<tr>
<td>Group weights: 50-50-0</td>
<td>3/3/3</td>
<td>5/5/5</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>3/3/1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure to risk of deviation bias</th>
<th>Cue 3 = 1</th>
<th>Cue 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R = .54$</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Optimal weights: 50-50-0</td>
<td>1/1/5</td>
<td>3/5/7</td>
</tr>
<tr>
<td>Group weights: 50-50-0</td>
<td>3/5/7</td>
<td>5/9/9</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>5/9/9</td>
</tr>
</tbody>
</table>
FIGURE 3: Group Cultural Values Manipulations (Study 1)

Collectivist Values

1. **Group members must accept norms.** Members need to understand the importance of consistently accepting and understanding group norms. When they treat group norms as inviolable, greater control results.

2. **Group members must cooperate with each other.** Maintaining harmony is crucial for success – and members should try to yield to others as much as possible.

3. **Group members must protect the interests of the group.** Performance increases when individuals work to accomplish group goals. Sacrificing one’s needs and desires for the interests of the group is an important quality of successful members.

Individualist Values

1. **Groups must question norms.** Members need to understand the importance of consistently questioning and challenging group norms. When they treat group norms as malleable, positive change results.

2. **Group members must compete with each other.** Striving for special recognition is crucial for success – and members should try to outperform others as much as possible.

3. **Group members must protect their own interests.** Performance increases when individuals work to accomplish their own goals. Being “true” to oneself and one’s unique sets of needs and desires is an important quality of successful members.
FIGURE 4: Estimated Marginal Means of Achievement Scores ($r_a$) (Study 1)
FIGURE 5: Participant vs. Ideal Predictions (Exposure to Risk of Conformity Bias) (Study 1)

A. Collectivist Group / Process Accountability

B. Collectivist Group / Outcome Accountability

C. Individualist Group / Process Accountability

D. Individualist Group / Outcome Accountability
FIGURE 6: Participant vs. Ideal Predictions (Exposure to Risk of Deviation Bias) (Study 1)
FIGURE 7: Participant Weighting Strategies (Relative Regression Coefficients) (Study 1)

Exposure to Risk of Conformity Bias

Exposure to Risk of Deviation Bias

Academic Performance (AP), Extracurricular Involvement (EI), Communication Skills
FIGURE 8: Absolute Difference from Ideal Predictions over Trials (i.e., Learning over Time) (Study 1)
FIGURE 9: Cultural Values Manipulations (Study 2)

Collectivist Values

What Makes Organizations Successful? Having Employees who Value Interdependence, Harmony, and Finding Common Ground

An eminent organizational psychologist explains the three critical factors that make the difference between success and failure in today’s leading companies and organizations.

1. Employees should follow the “wisdom of the crowd.” It is usually always the case that the majority perspective is the correct one. Employees need to understand this and not attempt to challenge it.

2. Employees must maintain cooperation. Maintaining harmonious relationships (and “fitting in”) is crucial for increasing stability – and employees should try to yield to others as much as possible.

3. Employees should pursue collective interests. Performance increases when employees’ attention is directed towards accomplishing organizational goals. Thus sacrificing one’s needs and desires for the interests of the organization is an important driver of success.

Individualist Values

What Makes Organizations Successful? Having Employees who Value Independence, Dissent, and Individual Expression

An eminent organizational psychologist explains the three critical factors that make the difference between success and failure in today’s leading companies and organizations.

1. Employees should question the crowd. The majority perspective is not necessarily always the correct one. Employees need to understand this and attempt to challenge it.

2. Employees should strive for distinction. Striving for special recognition (and “standing out”) is crucial for facilitating change – and members should try to outperform others as much as possible.

3. Employees should pursue personal goals. Performance increases when employees’ attention is directed towards accomplishing their own individual goals. Being “true” to oneself and one’s unique competencies and needs is thus an important driver of success.
FIGURE 10: Schematic Map of Construal Shifting Coding Scheme (Study 2)

1

ABSTRACT
Global issues the bookstore faces

1. Declining customer visits: in-store customer visits have declined due to competitors, second-hand specialty, and student-operated book selling networks

2. Competition from online retailers: popularity of physical (“brick and mortar”) stores is declining; bookstore is unable to provide an attractive in-store consumer experience

3. Lingering effects of 2008 recession: consumers are increasingly frugal

2/3

4/5

CONCRETE
Four elements of the everyday low pricing (ELP) strategy

1. Reduced all prices of books and merchandise by an average of 40% to offer consumers everyday low prices.

2. Removed the words “sale” and “clearance” from all of its promotional messaging in-store and out-of-store.

3. Replaced the manufacturer’s suggested retail price on all book and merchandise tags (which traditionally also displayed the sales price) with the everyday low price.

4. Broke with the traditional retailing best-practice of ending all prices with .99, and instead rounded up all prices to the nearest dollar to end with .00.

2/3

New concrete ways in which abstract issues can be addressed
FIGURE 11: Estimated Marginal Means, Decisions to Continue / Launch Components of ELP Strategy (Study 2)
FIGURE 12: Monetary Investments to Continue or Launch ELP Strategy (Study 2)

*Exposure to Risk of Conformity Bias*

*Exposure to Risk of Deviation Bias*
FIGURE 13: Estimated Marginal Means, Cultural Values by Accountability on Construal Shifting (Study 2)
FIGURE 14: Salespeople Evaluation Forms for Accountability Manipulations (Study 3)

<table>
<thead>
<tr>
<th>Process Accountability</th>
<th>Outcome Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Providing Information Performance</strong></td>
<td><strong>1. Produces a high market share for SSI.</strong></td>
</tr>
<tr>
<td>1. Carries out company policies, procedures, and programs for providing information.</td>
<td>1</td>
</tr>
<tr>
<td>2. Provides accurate, complete, and timely paperwork related to orders, expenses, and other routine reports.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Using Technological Knowledge Performance</strong></td>
<td><strong>2. Makes sales of those products with the highest profit margins.</strong></td>
</tr>
<tr>
<td>3. Knows the design and specifications of company products.</td>
<td>1</td>
</tr>
<tr>
<td>4. Keeps abreast of company’s production and technological developments.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Making Sales Presentations Performance</strong></td>
<td><strong>3. Generates a high level of dollar sales.</strong></td>
</tr>
<tr>
<td>5. Listens attentively to identify and understand the real concerns of customers.</td>
<td>1</td>
</tr>
<tr>
<td>6. Communicates their sales presentation clearly and concisely.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Controlling Expenses Performance</strong></td>
<td><strong>4. Quickly generates sales of new company products.</strong></td>
</tr>
<tr>
<td>7. Operates within the budgets set by the company.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>5. Identifies and sells to major accounts.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>6. Produces sales or blanket contracts with long-term profitability.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>7. Exceeds all sales targets and objectives during the year.</strong></td>
</tr>
</tbody>
</table>
FIGURE 15: Overall Performance Ratings (Study 3)

![Bar chart showing overall performance ratings for different organizational structures and accountability types. The chart includes t-values and p-values for statistical significance.]

- Employee who exhibits conformity bias
- Employee who exhibits deviation bias
FIGURE 16: General Managerial Decisions (Study 3)

- $t(41) = 4.53; p < .01$
- $t(38) = .55; p > .10$
- $t(39) = .86; p > .10$
- $t(35) = -2.14; p < .05$

Bar chart showing general managerial decisions for collectivist and individualist organizations with process and outcome accountability.
FIGURE 17: Pro-organizational Motives (Study 3)

![Bar chart showing pro-organizational motives in different scenarios.](chart.png)
BIBLIOGRAPHY


