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Cognitive Biases and Organizational Correctives: Do Both Disease and Cure Depend on the Politics of the Beholder?

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Abstract

The study reported here assessed the impact of managers' philosophies of human nature on their reactions to influential academic claims and counter-claims of when human judgment is likely to stray from rational-actor standards and of how organizations can correct these biases. Managers evaluated scenarios that depicted decision-making processes at micro, meso, and macro levels of analysis: alleged cognitive biases of individuals, strategies of structuring and coping with accountability relationships between supervisors and employees, and strategies that corporate entities use to cope with accountability demands from the broader society. Political ideology and cognitive style emerged as consistent predictors of the value spins that managers placed on decisions at all three levels of analysis. Specifically, conservative managers with strong preferences for cognitive closure were most likely (a) to defend simple heuristic-driven errors such as overattribution and overconfidence and to warn of the mirror-image mistakes of failing to hold people accountable and of diluting sound policies with irrelevant side-objectives; (b) to be skeptical of complex strategies of structuring or coping with accountability and to praise those who lay down clear rules and take decisive stands; (c) to prefer simple philosophies of corporate governance (the shareholder over stakeholder model) and to endorse organizational norms such as hierarchical filtering that reduce cognitive overload on top management by short-circuiting unnecessary argumentation. Intuitive theories of good judgment apparently cut across levels of analysis and are deeply grounded in personal epistemologies and political ideologies.

Disciplines

Business Intelligence | Cognition and Perception | Cognitive Psychology | Experimental Analysis of Behavior | Management Information Systems | Management Sciences and Quantitative Methods

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Managers evaluated scenarios that depicted decision-making processes at micro, meso, and macro levels of analysis: putative cognitive biases of individuals, strategies of structuring and coping with accountability relationships between supervisors and employees, and strategies that corporate entities use to cope with accountability demands from the broader society. Political ideology and cognitive style emerged as especially consistent predictors of the value spins that managers placed on stories at all three levels of analysis. Specifically, conservative managers with strong preferences for cognitive closure were most likely: (a) to defend simple heuristic-driven "errors" such as over-attribution and over-confidence and to warn of the mirror-image mistakes of failing to hold people accountable and of diluting sound policies with "irrelevant" side-objectives; (b) to be skeptical of complex strategies of structuring or coping with accountability and to praise those who lay down clear rules and take decisive stands; (c) to prefer simple philosophies of corporate governance (the shareholder over stakeholder model) and to endorse organizational norms such as hierarchical filtering that reduce cognitive overload on top management by short-circuiting "unnecessary" argumentation. Intuitive theories of good judgment apparently cut across levels of analysis and are deeply grounded in personal epistemologies and political ideologies.

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Experimental research on judgement and choice has now reached voluminous proportions and it paints a decidedly unflattering portrait of the individual decision maker (Dawes, 1998; Goldstein & Hogarth, 1996; Kahneman, Slovic, & Tversky, 1982). Experimental subjects, it has been repeatedly claimed, fall prey to a wide assortment of errors and biases. They are often too quick to jump to conclusions about the personalities of other people (even when there are highly plausible situational explanations for the conduct in question), too slow to change their minds in response to disconfirming feedback, excessively confident in their predictions, and prone to give too much weight to irrelevant cues (such as sunk costs) and too little weight to relevant ones (such as opportunity costs). Although this grim portrait has been qualified by the recent emergence of dual-process models of judgement and choice which bestow on people some limited capacity to decide how to decide (see Simon, 1955, for a classic statement of this position and see Chaiken and Trope, 1999 for a compendious collection of current motivated-tactician or cognitive-manager models), it still remains the case that the dominant emphasis in the last quarter century of experimental work has been on the judgmental shortcomings of human beings.

How should organizational theorists react to this burgeoning body of evidence of deviations from rationality at the individual level of analysis? March (1989,1995) has constructed a useful inventory of key conceptual stumbling blocks likely to trip up confident reductionists who think it is easy to extrapolate across levels of analysis:

(1) <u>Utilitarian versus Rule-Based Models of Choice</u>. Laboratory researchers stress the reality-appraisal and utility-maximizing functions of judgment and choice. People are posited to be intuitive scientists, statisticians, or psychologists engaged in a continuous struggle to achieve cognitive mastery of their world (Fiske and Taylor, 1991). People pursue this epistemic goal for a mixture of intrinsic reasons such as curiosity and extrinsic reasons such as the quest for predictive leverage in anticipating events--leverage which, in turn, confers competitive

advantage on people in their capacity as intuitive economists who are ever on the prowl for more effective ways of advancing their material interests. One's selection of functionalist metaphor should not be dismissed as a mere matter of explanatory aesthetics; it is profoundly consequential (Lakatos, 1970). What counts as an error or bias in judgment or choice is shaped by the metaphor-laden standards of rationality that we use to evaluate how people think. Consider three examples:

(a) the alleged fundamental attribution error--the tendency of observers to conclude too quickly that conduct of others is under the control of stable personality traits when explanations that invoke the immediate situation are just as plausible. This "error" counts as an error only when we posit that people make causal attributions for conduct with the epistemic objectives of intuitive scientists/psychologists and, to this end, employ logical-inference algorithms such as correspondent inference and the discounting, augmentation and covariation principles;

(b) the tendency to slight statistical generalizations and to give excessive weight to case-specific information in making predictions. Failure to use predictively useful base rates becomes an error only within a framework that posits people to be intuitive statisticians who are using Bayesian or regression principles to minimize classification errors;

(c) the frequent observation that people are too slow to acknowledge certain trade-offs or to write off certain types of sunk costs. Failure to confront certain trade-offs or to abandon apparently failing policies can be unequivocally classified as an error only within an intuitive-economist framework that insists that, in the search for utility-maximizing options, no principle is sacred or above calculation.

March and Olson (1989, 1995) urge us to step back and contemplate the important possibility that these dominant functionalist metaphors do not map in any neat one-to-one fashion onto managerial decision-makers' conceptions of how they do or should make judgments and choices. As we move from the laboratory to actual organizations, decision makers may, among other things, shift from quantitative utility-based logics to more qualitative, rule-based logics of appropriateness that call on them to fulfill identities or roles by acting in accord with their normative definitions of the situation. The refusal to factor base rates into one's calculations of likelihood of category membership, especially when those base rates correlate with ethnicity or race in late 20th century America, may reflect not our failings as intuitive statisticians but rather a principled defense of egalitarian political values (Koehler, 1996; Tetlock, Kristel, Elson, Green, & Lerner, 2000). Resistance to contemplating so-called taboo trade-offs--for instance, those that require affixing monetary values to human life or loyalty or integrity--may stem not from cognitive laziness or lack of capacity to engage in the necessary mental operations, but rather from a moralistic defense of sacred values against secular encroachments (people as "intuitive theologians" -- Tetlock, Peterson, and Lerner, 1996; Fiske and Tetlock, 1997). The tendency to prefer dispositional explanations for conduct, perhaps especially undesirable conduct, may derive not from our deficiencies as intuitive psychologists, but rather from a principled or calculated decision by many people (in the functionalist role of intuitive prosecutors) that one of the best ways to pressure other people to live up to performance expectations is to convey that one has a low perceptual threshold for drawing inferences about character from conduct. The implicit message is: "don't bother concocting ingenious situational justifications or excuses for conduct that falls short of prevailing norms. I believe that what you do virtually always reveals a lot about what kind of person you are and about how committed you are to this organization".

(2) <u>Is the goal to achieve clarity and consistency or is it instead to generate ambiguity, confusion and ever greater latitude for organized hypocrisy (saying one thing and doing another)</u>? Intuitive scientists seek clarity of understanding and intuitive economists treat consistency as a minimal defining feature of rationality. In many organizational contexts, however, people may function more like intuitive politicians whose guiding goal is to maintain good working relations with the diverse constituencies to whom they feel, for whatever reason, accountable. Confronted by ambiguous or by conflicting accountability demands, Tetlock et al. (1996) document that it is often be adaptive for both individual and collective actors to find ways of fudging trade-offs (e.g., university administrators in late 20th century America who announce that "excellence is

diversity”), of obfuscating where they stand on contested issues (e.g., administrators who take cover under moralistic platitudes and vague legalisms such as “we believe in fairness” or “we are an equal opportunity employer”), and of convincing others that responsibility for certain decisions belongs elsewhere within the institution or in another institution altogether (e.g., administrators who offer accounts of the form “we understand your grievance but that policy is under review by another agency”). Confronted by unfamiliar or complex choice problems, it may often be sensible for decision makers to focus on the most readily justifiable choice options, even if that means violating basic consistency axioms of rational-choice theory such as ignoring irrelevant alternatives or violating the sure-thing principle (Simonson, 1991; Tetlock, 1992a).

(3) Should decision making be viewed as a purely instrumental process or should the focus be on the symbolic meaning that the process takes on as an end in itself to constituencies both inside and outside the organization? The intuitive-scientist metaphor depicts thought as a means to the end of understanding and solving problems and the intuitive-economist metaphor depicts thought as a means toward the goal of utility maximization in competitive markets. A sound decision process yields good--ideally, the best possible--outcomes according to either an epistemic or utilitarian standard of evaluation. Alternative functionalist metaphors--especially the intuitive politician, jurist, and theologian--alert us to the possibility that how decisions are made can be an important end in itself. For example, some observers defend multiple-advocacy, high-participation, styles of decision making over more elitist, top-down styles not only on the consequentialist ground that multiple advocacy leads to better soutcomes (Janis & Mann, 1977; George, 1980) but also on the deontic ground that there is a moral imperative is to give the full range of affected groups a “voice” in the process (Hirschman, 1970). Moreover, this moral argument for taking process seriously can also be given an added consequentialist edge. People who feel that they have not been treated unfairly and disrespectfully may become disaffected and more likely to protest, cheat, and resign (Rusbult et al,. 1988; Tyler, 1990). Indeed, large swathes of organizations may exist less for their instrumental rationality and more for their symbolic efficacy in convincing key internal and external constituencies that the organization is

indeed committed to sacrosanct societal values such equal opportunity, environmental protection, or balancing work and family (Meyer, 1983).

Taken in its entirety, this Marchian inventory reminds us that the normative standards that laboratory researchers find most useful in defining “good judgment” may be of limited use, and may sometimes be downright misleading, once we embed the processes of judgment and choice in organizational settings characterized by sharp contests for power and influence, intense demands for accountability from conflicting constituencies, prickly principal-agent relationships, and enormous uncertainty about what should be done next. We should not be astonished, therefore, when work-a-day managers occasionally have the temerity to second-guess the normative judgment calls of high-profile experimental researchers. We should also not be astonished if we often discover systematic rifts in the opinions that managers themselves hold about what is and is not rational and about the types of organizational and political reforms that are likely either to attenuate or amplify particular deviations from rationality.

Theorists who work within uni-functionalist frameworks will be inclined to treat such disagreements over ‘cognitive biases” and “organizational correctives” as presumptive evidence that one camp must be right and the other wrong. “Right” and “wrong” take on clear-cut meanings within the intuitive-scientist framework, preoccupied as it is with maximizing epistemic goals, or within the intuitive-economist framework, preoccupied as it is with maximizing utilitarian goals in competitive markets that ruthlessly punish suboptimal practices. These theorists argue that when the task is well-defined, there are rigorous mathematical baselines -- derived from Bayes’ theorem and statistical decision theory -- for gauging exactly how mistaken people are.

By contrast, “right” and “wrong” quickly become tendentious categorizations within a multi-functional theory of judgment and choice that incorporates less-well-defined task constraints and goals such as projecting desired social identities to key constituencies , proclaiming fealty to sacred values, and defending the normative order. From a multi-functional perspective, disagreements over cognitive biases and organizational correctives count as presumptive evidence that the disputants subscribe to distinctive ideological worldviews that rest on diverging assumptions about human nature and the social order, about how to understand social reality and navigate self through it, and about the goals that give purpose to one's life and that define one's relationship to various social structures. Confronted by disagreements over "what is rational" and over "how to fix alleged departures from rationality," the appropriate research response is to trace these disagreements to their ultimately philosophical and ideological roots.

The current article proceeds from the premise that managers' opinions about cognitive bias and organizational correctives are rooted in competing epistemological and ideological world views (although, not surprisingly, most managers take pride in thinking of themselves as pragmatic problem-solvers and resist characterizations of their views as either philosophical or ideological). Following extensively validated research procedures in the literature on cognitive styles -- especially Kruglanski and Webster (1996) and Tetlock (1998) -- we assess personal epistemologies along a cognitive-style continuum dubbed preference for simplicity and explanatory closure. At one end of the continuum, we observe distaste for ambiguity and protracted debate and strong endorsements of the views that the social world is fundamentally simple and the most effective strategies of coping with it are also simple. At the other end, we observe a high-comfort level for dissonance and uncertainty and strong endorsements of the views that the social world is enormously complex and pluralistic and that the most effective strategies of coping with it are comparably complex and pluralistic (multifaceted perspective-taking and trade-offs). Following research precedents in the literature on political ideology in mass and elite samples (Lipsett & Raub, 1978; McClosky & Brill, 1983; Rokeach, 1973; Tetlock, 1984), we assess ideological world views with a battery of items that tap views of human nature (how trustworthy, rational and resilient are people?) as well as endorsements of individualistic values (skeptical of encroachments on economic liberty), egalitarian/environmentalist values (skeptical of workings of unregulated markets, sensitive to needs to check negative externalities, to generate public goods, and to rectify wrongs of past), and traditional conservative values (strong religious faith, positive attitude toward authority and strict enforcement of rules). Consistent with past research on public attitudes, especially work on "elites" (Kinder, 1998), it was impossible to create a psychometrically defensible one-dimensional measure of ideology but we did converge on a two-factor solution that included a traditional-conservatism/anti-authoritarian/egalitarianism factor (anchored at one end by an unapologetic defense of social hierarchies and suspicions about both the trustworthiness and competence of the modal employee and anchored at the other end by a distaste for hierarchy and a markedly more benign view of humanity) and a market-libertarianism/anti-libertarian egalitarianism factor (anchored at one end by enthusiastic embrace of market solutions to social problems, deep skepticism of government, and a view of humanity as resourceful, rational, and self-reliant and anchored at the other end by a deep skepticism of market solutions and a view of humanity as fragile and in need of protection by a caring state).

Our guiding hypothesis was that cognitive style and ideological worldview would jointly predict managerial reactions to a broad assortment of scenarios pitched at micro, meso, and macro levels of analysis. Predictions focused on:

(a) the soundness of patterns of thinking of individual decision makers;

(b) the soundness of different strategies of structuring accountability relationships, and of coping with accountability relationships, between immediate supervisors and those reporting to them;

(c) the soundness of competing political schemes for organizing accountability systems at the corporate or societal level--schemes that are often proposed either to improve the quality of collective decision making or to advance the cause of social justice.

<u>Micro: Predicting Reactions to the Fundamental Attribution Error, Over-Confidence, Forbidden Base Rates, and Taboo Trade-Offs</u>.

One key predictor of what counts as a cognitive bias in social perception was hypothesized to be one's baseline assumptions about the trustworthiness of other people. How prone are others to take advantage of the inevitable incompleteness of even the most formal contracts (not to mention informal understandings based on the proverbial handshake)? How wise is it to pressure others to live up to their ends of social bargains by setting a low threshold for drawing inferences about character even when plausible situational explanations exist? Ceteris paribus, the more Hobbesian or pessimistic one's view of human nature, the more egoistic, calculating and self-serving others one should suppose others to be, and the more justifiable the fundamental attribution error will appear to be--perhaps especially when explaining deviant or disappointing conduct. Drawing on past surveys of public opinion (McClosky and Brill, 1983; Sniderman, 1975), traditional conservatives were hypothesized to subscribe to a more jaundiced view of humanity than were those on the ideological left and thus more likely to rise to the normative defense of the fundamental attribution error by insisting both that the putative error is not all that erroneous (people are often untrustworthy) and that it is often prudent (it is better, on average, to indict the occasional innocent soul than it is to fail to punish the sinful masses of defectors);

A second hypothesized predictor of what constitutes bias is managers' opinions of the rationality and resilience of fellow human beings. The more doubts one harbors about the intellectual maturity of one's fellow human beings, about their tolerance for ambiguity and dissonance, the more prone one will be to adopt a more authoritarian model of the ideal leader that springs right out of Machiavelli's advice to Renaissance princes. Leaders are well advised to project a strong persona to subordinates: to display confidence in their views (even if, on average, this means that they are systematically over-confident), to conceal past mistakes whenever possible (even if this occasionally requires continuing commitments to red-ink-hemorrhaging projects) and to offer the masses simplistic assessments of the challenges confronting the collective (even if this requires denying divisive trade-offs lurking on the forecasting horizon). Drawing again on survey work in public opinion (McClosky & Brill, 1983), as well as on the cognitive style literature (Kruglanski & Webster, 1996), it was expected that ideological conservatives, especially those with strong preferences for closure, would most deeply doubt the cognitive and political maturity of subordinates and would accordingly rise to the strongest normative defense of managers who are over-confident, of managers who stay the course with projects that have run into "temporary trouble," and of managers who cloak painful trade-offs under artful rhetoric.

At this juncture, however, skeptics might suspect that the apparent normative divergence between the laboratory classifications of effects as errors and biases and managers' assessments merely rests on a misunderstanding over levels of analysis. Respondents may still see over-confidence, escalating commitment to sunk costs and trade-off denial as private cognitive vices; they just also see them as public or political necessities. The disagreement revolves around what leaders need to do to sustain useful social illusions. To test whether conservative respondents with strong preferences for closure truly subscribe to a different theory of good judgment (as opposed to a different theory of rhetorical manipulation), we need to gauge their reactions to private decision making procedures as well as to public posturing. Here again though, there are reasons for predicting systematic divergence. Drawing on survey research (Sniderman, 1975), archival content-analysis studies of political decision making (Tetlock, 1984), and laboratory studies of cognitive style (Kruglanski & Webster, 1996), there are reasons for suspecting that conservatives with strong preferences for rapid closure are often sincere in their defenses of over-confidence, of setting high thresholds for changing their minds, and of setting high thresholds for qualifying the pursuit of a core objective with ancillary objectives that create 'unnecessary' or 'distracting' trade-offs.

A third dimension along which managers probably vary is their assumptions about the goals of judgment and choice. Some may subscribe to a monistic conception in which nothing should interfere with efficiency and profit maximization (Jensen and Meckling, 1976); others subscribe to a more pluralistic conceptions that frequently place moral and political constraints on the pursuit of efficiency (Etzioni, 1996). For instance, those on the political left should be more likely than conservatives or libertarians to object to factoring into policy deliberations statistical base rates that, however probative, work to the disadvantage of traditionally disadvantaged groups (e.g., setting insurance premiums for neighborhoods in which actuarial risk and racial/ethnic composition tightly covary). Those on the libertarian right should take least umbrage at taboo trade-offs (that affix dollar values to human life). Those on the traditional conservative right should be the least curious about the "true causes" of their subordinates' conduct and most concerned with pressuring employees to behave themselves (the intuitive psychologist trumped by the intuitive prosecutor).

Meso: Predicting Preferred Strategies of Structuring, and Coping With, Accountability. Opinions about what constitutes a cognitive bias (or, indeed, moral deficiency) at the individual level should be closely coupled to opinions about how to design accountability systems that prevent these individual shortcomings from impeding (or tainting) organizational functions. One hypothesis was that conservatives with strong preferences for cognitive closure would approve of bosses who give their subordinates well-defined job missions and accountability guidelines whereas those on the left-liberal end of the continuum should see good rationales for creating normative ambiguity and encouraging imaginative exercises that undercut authority and tradition. A second hypothesis was that these ideological and cognitive-stylistic preferences would steep into evaluations of employees responding to accountability pressures from higher-ups. Conservatives and those with strong closure preferences should be more favorable to employees whose reports offer clear and unequivocal recommendations (echoing Harry Truman's preference for one-armed economic advisors) whereas egalitarians and those with little need to reach rapid closure should favor employees whose reports acknowledge uncertainty and enumerate complex trade-offs ("on the one hand .. and on the other ...").

A third hypothesis was that egalitarians should favor process over outcome accountability but that traditional conservatives and radical individualists should hold the opposite preference. Those on the liberal left are more likely to fear the unfairness of holding people accountable for outcomes that are only partly under their control (and hence are more willing to forgive those who fail but who followed the right procedures). Those on the libertarian right are more likely to fear the perverse bureaucratic incentives by shifting from a problem-solving focus on maximizing external outcomes to a ritualistic focus on observing prescribed routines (cf. Chubb and Moe, 1990, on the accountability norms of private and public schools). Libertarians tend to identify process accountability with the most notorious inefficiencies of public sector organizations (J.Q. Wilson, 1980). Traditional conservatives share this concern but they also worry about making performance appraisal unnecessarily cumbersome and opening the door to endless justifications and excuses for non-performance.

A final set of hypotheses predicts ideological variation in managerial reactions to accountability dilemmas that implicate classic problems of distributive and procedural justice. A recurring theme in the literature on distributive justice is the tension between the value of efficiency (which requires directing resources to those who will use them most productively) and equality (which requires subsidizing the less productive). The guiding hypothesis was that ideological cleavages in the broader society would manifest themselves in managerial philosophy: egalitarians would resist making managerial decisions that concentrated budget cuts on the least productive whereas traditional conservatives and market libertarians would have no reservations about doing so. With respect to procedural justice, there is the classic tension between the desire of authorities to enforce rules and the countervailing concern that everyone should feel that they had a fair say. The guiding hypothesis was that egalitarians should be more sympathetic to employees who resisted decisions from above that ignored their point of view, sympathy that would extend not just to employees exercising the voice option (protest) and, if need be, the exit (resignation) option but perhaps even to employees engaging in conduct of dubious morality (loophole exploitation). By contrast, traditional conservatives should be more sympathetic to employees who defer to commands from above (conservatives are not embarrassed about talking about "subordinates") and more inclined to regard protestors as whiners and malcontents, quitters as disloyal, and loophole exploiters as cheaters. Libertarians will also be inclined to back upper management but less out of affinity for hierarchy and more out of deference to formal contracts and property rights. Their reactions to loophole exploiters will also be harsh but their reactions to protestors will be muted (less upset as libertarians are by "insubordination") and their reactions to those who exit may even be positive (resourceful, self-reliant people don't passively accept ill-treatment, they find a better deal in the labor market).

(e) Macro: Predicting Attitudes toward Corporate Governance. How should accountability relationships within the organization as a whole, and between the organization and the broader society be structured? Once again, the traditional conservative preference for simple and unambiguous lines of authority and standards of accountability has numerous institutional opportunities to manifest itself. One hypothesis was that, and those with strong preferences for rapid closure should be skeptical of multiple-advocacy systems that require soliciting and integrating inputs from a wide range of perspectives prior to reaching decisions and they should be more enthusiastic about hierarchical, top-down, decision systems that place a lot of authority in a few hands and that permit--when necessary-- rapid implementation of new initiatives. Here it is worth stressing that this split between left and right may be rooted in two distinct sources: those on the right should be both more dubious of the added utility of soliciting diverse inputs as a means to the end of better decisions (subordinates may actually detract from the quality of debate) and they should be less committed to the egalitarian goal of giving voice, and the attendant sense that one has been heard, to the hoi polloi as a moral end in itself.

A second hypothesis was that those who most value hierarchy and parsimony would display stronger support for the shareholder model of corporate governance (a stringently monistic accountability regime that calls on management (technically, the agents) to work single-mindedly toward the goal of greater financial returns to shareholders (technically, the principals)) and greater skepticism toward the stakeholder model (a more open-ended pluralistic accountability regime that calls on management to balance the contradictory demands of a cacophonous host of clamorous constituencies). To be sure, this preference for the shareholder model need not be rooted entirely in cognitive-stylistic affinity for accountability systems in which it is relatively straightforward to determine whether management is doing a good job. Traditional conservatives and modern libertarians should be especially sympathetic to the interests of the capitalized principals (who possess the moral trump card of rightful ownership and whose interests should be advanced as an end in itself) as well as to a single-minded focus on efficiency (Jensen & Meckling, 1976). Critical though they indisputably are to the long-term profitability of the enterprise, stakeholders "have not put their money where their mouths are" and occupy a distinctly secondary place in both the moral and pragmatic schemes of things. By contrast, liberals and social democrats should be more inclined to endorse: (a) the functional view that, given the pluralistic and interdependent character of modern business environments, it does not make practical sense to exclude key voices from the policy setting process; (b) the moral view that the "economic underdogs" and traditionally disadvantaged also deserve to be heard and won't be unless granted places on Boards of Directors (Etzioni, 1996).

Summary of Hypotheses. This study examines the patterns of consistency in managerial judgments of the soundness of decision-making practices and accountability procedures at micro, meso, and macro levels of analysis. the study focuses on two major potential predictors of these patterns, ideological worldview and the cognitive-style construct of preference for simplicity and explanatory closure, but also assesses a host of potential control variables, including private-public sector employment, gender, income, age, and education. It is also worth stressing that, although the current study is largely an exercise in hypothetico-deductive social science, there is an exploratory inductive dimension to the research design. A set of in-depth interviews with specially selected ideological subsets of managers probed their justifications for their judgments of what constitutes good judgment at each of the three levels of analysis.

Method

Questionnaires were distributed to approximately 650 middle-managers in 3 public sector organizations (employing, on average, 5000 persons) and 3 private-sector organizations (employing, on average, 4500 persons). Of the managers in our target population, 39% ultimately responded to all or most of the questionnaire, yielding a sample of 259 managers who averaged 42.3 years of age, had 5.1 years of higher education, and had 8.2 years of experience in coordinating and supervising staffs that ranged in size from 4 to 210. The sex-ratio was 7 males to every three females. Data collection occurred in 1996 and 1997. The private-sector organizations included an insurance company and two high-technology firms; the public-sector organizations were civilian agencies of the federal government that specialized in national security or intelligence analysis and a state-level educational bureaucracy. Both individual respondents and organizational representatives were assured of the absolute confidentiality of all responses. The questionnaires was ananlytically partitioned into three components: ideological worldview, cognitive style, and preferred managerial styles (which measured reactions to micro, meso, and macro scenarios and problems).

Ideological worldview. These items — each involving a 7-point semantic-differential-style scale -- assessed ideological self-identification (using a question adapted from the National-Election-Studies: “overall, do you consider yourself to be a liberal or conservative?”) as well as views of the trustworthiness of other people (“most people are looking for ways of getting away with something” and “when you treat employees with fairness and consideration, you can count on them to do the right thing even when no one is looking”), the resourcefulness and rationality of others (“people lower down in organizations generally understand a lot more than they are given credit for,” “even the strongest among us fall on hard times and need help from the community,” “a useful maxim in dealing with employees is KISS -- “keep it simple, stupid”), the willingness to defend explicit hierarchies (“I am not at all embarrassed to talk about “subordinates” or “people working under me in the chain of command,” “It is not a perfect relationship but generally the higher in an organization you look, the more talented and hardworking the people tend to be”, “It sounds old fashioned but obedience is an important virtue”), the willingness to defend the single-minded pursuit of profit-maximization (“it is a bad idea to mix business goals with concerns for social justice,” “human progress owes a lot to innovators who had the courage of their convictions”), the relative importance of “avoiding being taken advantage of” versus “failing to reach mutually beneficial relationships with others,” the necessity of strong leadership (“most people are without direction in the absence of strong leadership”), enthusiasm for free markets (they “stimulate growth and prosperity”), wariness of markets (“we need government to protect us from the income inequality and damage to the natural environment that result from unregulated free markets”) and attitudes toward government (“overall, in our society today, government creates a lot more problems than it solves”).

Cognitive style. These items were mostly adapted from Kruglanski and Webster's (1996) need-for-closure scale. These items assessed tolerance for ambiguity ("I dislike questions that can be answered in many different ways"; "It is annoying to listen to someone who cannot seem to make up his or her mind"), and strength of personal preference for simple comprehensive explanations of phenomena, for working on problems with clear-cut solutions, and for working in homogeneous as opposed to heterogeneous social units ("The world is fundamentally a far simpler place than it initially seems to be"; "Even after I have made up my mind about something, I am always eager to consider a different opinion"; "I usually make important decisions quickly and confidently"; "When considering most conflict situations, I can usually see how both sides can be right"; "I prefer interacting with people whose opinions are very different from my own"; "it is better to accomplish one objective really well than it is to try to accomplish two or more objectives and do only a so-so job").

Preferred managerial style at the micro, meso, and macro levels of analysis. Order of presentation of managerial problems and dilemmas was always counterbalanced within all repeated-measure scenarios.

Micro Scenarios: Assessing reactions to putative cognitive biases.

(1) Fundamental Attribution Error. This pair of scenarios assessed approval of managers who varied in their receptiveness to employees' accounts for failure to achieve organizational goals. Half of the respondents were randomly assigned to the experimental condition in which they first read a scenario describing a prime managerial candidate for the fundamental attribution error--a manager with a low threshold for drawing strong conclusions about the character of his employees from performance data alone:

(a) "J.M. adopts a "no-excuses" approach to evaluating the people who report to him. He feels that most people are just far too inventive at concocting stories for failing to achieve organizational goals. He therefore holds people strictly accountable for objective performance indicators, taking into account only relatively extreme extenuating circumstances."

After rating the manager, these respondents then read a scenario that described an empathic manager who seemed a prime candidate for the flipside inferential bias, hyper-receptivity to any and all situational explanations that people might advance for their conduct:

"L.V. thinks it a bad idea to base evaluations of the people reporting to him on so-called objective performance indicators. He needs to hear the employees' perspectives on why they failed or succeeded in achieving key organizational goals and always bases his evaluation primarily on the accounts that employees provide of what is actually going on in both the business and their personal lives."

The other half of the respondents read the scenarios in the opposite order. Key dependent variables included 8 descriptive phrases to which managers responded on 1-9 unipolar scales ranging from "not at all characteristic" to "extremely characteristic". The traits were selected to capture the negative and positive value spins that could plausibly be attached to both managerial stances toward employees. The most negative value spin on the fundamental attribution error is that it reveals a "harsh," and "punitive" style of management; the most positive value spin on the "error" is that it reveals "uncompromisingly high standards," and "a commitment to a no-nonsense, no-excuses working style." The most negative value spin on the flipside of the fundamental attribution error — hypersensitivity to situational accounts — is that such managers are "gullible" and "tolerant of low or inconsistent standards." The alpha for the four scales is 0.81 the most positive value spin is that such managers are "compassionate"/"empathic," and "psychologically perceptive." The alpha for these four scales was 0.84.

An additional single-item measure of attitude toward the fundamental attribution "error" was: "Managers always run the risk in evaluating employees of two possible mistakes: (a) failing to hold them responsible for outcomes that they could and should have controlled; (b) holding them responsible for outcomes that they could not reasonably be expected to control." Participants then rated (on a 1-9 scale), the relative frequency and seriousness of these two errors in work settings today (with "9" representing the view that (b) is "by far the more common serious error").

(2) Over-confidence. A second pair of counterbalanced scenarios explored evaluations of managers who viewed either over- or under-confidence as the more serious vice:

"It is always possible to make one of two basic mistakes in decision-making: to be underconfident (to doubt that one has useful information in hand when one really does) or to be overconfident (to think one has useful information in hand when one really does not). But L.B./N.R. is convinced that underconfidence/overconfidence is much the more serious threat to high-quality decision-making and that [priority should be given to encouraging critical analysis of core assumptions, even if that slows decision making down] [priority should be given to advancing compelling arguments and mobilizing enthusiasm for what looks like the best option, even if it means acting too quickly].

Key dependent variables captured positive value spins on over-confidence (decisive, possesses a can-do attitude) as well as negative value spins (rigid/closed-minded, arrogant) (alpha = 0.76) and positive value spins on under-confidence (flexible/open-minded, possesses capacity for self-criticism) as well as negative value spins (indecisive, wishy-washy) (alpha = 0.78).

In addition, a single-item measure of attitude toward over/underconfidence explicitly distinguished between private thought and public self-presentation. Respondents rated their degree of preference (on a 9-point scale) for two styles of leadership:

"M.V. believes that, however many doubts about a decision he may harbor privately, he needs to project confidence that he has the right answer to employees" vs. "A.V. believes that if he has private doubts about a decision, it is a good idea to share those concerns with employees."

(3) Staying the Course versus Abandoning Sunk Costs. Participants rated on a 9-point scale the relative frequency of one of two mistakes that managers nowadays can make: they "are more likely to make the mistake of prematurely abandoning a good idea that runs into trouble" or "to make the flipside mistake of persevering too long with a bad idea and spending good money after bad").

(4) Simple Heuristics versus Complex Choice Strategies.. Answering again on a 9-point scale: "Which mistake do you think managers nowadays are more likely to make: to rely too heavily on simple, intuitive rules of thumb grounded in practical experience or to exaggerate the complexity of the issues at stake and to spend far too much time and energy seeking expert advice and developing complex decision-making procedures?"

(5) Morally Suspect Trade-Offs. This single-item measure explored reactions to a cost-benefit analysis that placed a dollar value on human life: "S.J. is an auto-industry executive who received a confidential cost-benefit analysis which indicated that the expected cost of recalling a popular car and correcting a potential safety defect is $900 million whereas the expected benefits (reduced legal liability from the expected 50 serious injuries and deaths) is just $300 million, a 3:1 ratio in favor of taking no action." How do you think he should respond: "go along with the recommendation and do not undertake the repairs" (1) and " reject the report's recommendation and order the potential safety defect corrected" (9).

(6) Morally Suspect Base Rates. This single-item measure explored opposition to profit-maximization rooted in egalitarian/fairness concerns: "G.B. is an executive who discovered that, although the actuarial risk factors used to compute home owners' insurance premiums are statistically and financially well designed to maximize profits and are not open to legal challenge, the net result of using these risk factors is that poor people, who come disproportionately from minority groups, wind up paying higher percentage premiums." How do you think he should respond: "keep the current profit-maximizing policies in place" (scale value 1) or "alter the current profit-maximizing policy and reduce the burden on the poor communities, notwithstanding the adverse effect on the corporate bottom line" (9).

Meso Scenarios: Assessing reactions to strategies of coping with accountability.

(1) Pre-emptive Self-Criticism Versus Defensive Bolstering. This pair of scenarios posed the following problem:

"Senior management has asked K.M. for his views on which projects in his division should be put on the "fast track." The "favorites" of senior management are at this point impossible to guess. He responds by [offering a complex and balanced appraisal of the pro's and con's of each project, anticipating the key criticisms that can be leveled at each, and specifying the trade-offs that management confronts] [singling out the projects he considers most promising and making as powerful and compelling a case as he can for those options.]"

Key dependent variables included the same trait scales used in assessing reactions to over- and under-confidence (an appropriate isomorphism in view of experimental evidence that self-critical thought attenuates over-confidence whereas bolstering amplifies over-confidence--Tetlock and Kim, 1987).

(2) Open-ended versus directive accountability. D.F. runs a policy planning group that consists of professionals with varying expertise. [He sees it as his job to guide the group by giving his opinion first and by laying out a clear discussion agenda that keeps meetings brief. He finds that this procedure helps to set definite boundaries on what it is and is not useful to consider.] [He sees it as his job to encourage the group members to think as creatively as possible and, to this end, he rarely reveals his opinion before everyone has had a say. Although meetings may be long, he believes that the process often reveals important new perspectives.]

Bipolar rating scales included positive and negative spins on open-ended accountability (open- versus closed-minded) and on directive accountability (well organized/poorly organized).

(3) Process versus outcome accountability. M.R. runs the purchasing department for his organization. [His philosophy is that employees are paid to implement carefully designed procedures for making deals with outside providers of goods and services. As long as employees follow the specified procedures for selecting high-quality products at competitive bids, employees know they won't get into trouble--even if the resulting price paid is too high.] [His philosophy is that employees are paid to get the best possible prices for high-quality products. The purchasing procedure guidelines are just that--guidelines, not fixed rules. Employees who pay too high a price or who buy defective merchandise jeopardize their careers. Following procedures is no defense.]

Positive value-spin descriptions of the process-accountability manager included fair and systematic; negative spins included rule-bound and bureaucratic (alpha = 0.75). Positive value spin descriptions of the outcome-accountability manager include resourceful and effective; negative value spins excessively demanding and unfair (alpha = 0.83).

(4) Concentrate Pain Versus Diffuse Sacrifice. This pair of scenarios went as follows:

B.G. just learned that the department received a 10% cut in its annual operating budget. He responds [by trying to distribute the burden of the cuts fairly and equally across all employees who work for him] [by trying to maximize the efficiency of his organization--laying off those employees who contribute the least to productivity and streamlining operations by introducing new technology that reduces the need for future hiring].

Key dependent variables captured positive and negative value spins that liberals and conservatives might place on the egalitarian versus efficiency responses to austerity. The positive value spin on concentrating the cuts on the least productive was that this policy "promotes profitability and efficiency" and "sends the right message to employees who take their jobs for granted"; the negative value spin was that this policy "violates the trust the workers have placed in the organization" (the implicit social contract), and "erodes the loyalty toward the organization and breeds cynicism and distrust." Alpha for the 4-item scale was 0.79. The positive value spin on diffusing the pain is that sharing burdens equally was "morally right in itself" and also "promotes solidarity at the workplace" (one for all and all for one); the negative value spin was that this policy is merely "a cowardly dodge to avoid controversy" and "is short-sighted and likely to destroy the organization in the long term." Alpha for this 4-item scale was 0.76.

(5) Voice, Exit, Subversion, Loyalty. These scenarios probed reactions to resistance to accountability demands that takes the form of protest (exercising the voice option), looking for another job (exercising the exit option) and strategic exploitation of loopholes in the accountability guidelines:

"P.T. learns that the work unit he manages will be expected in the coming year to achieve an increase in productivity he considers unreasonably and unfairly large. His unit was not consulted at all during the process of setting the new productivity standard and the firm is doing well and in no danger of insolvency. P.T. [protests by providing a detailed set of reasons why he considers the new standards to be both unreasonable and unfair to his work unit] [resigns to take another job] [looks for loopholes in the new accountability guidelines that allow him to "play games with numbers" in ways that artificially inflate the perceived productivity of his unit] [keeps his objections to himself and does the best he can do to achieve the new performance standards]."

Key dependent variables captured positive and negative value spins on voice (alpha = 0.75) exit (alpha = 0.82), subversion (alpha = 0.77) and compliance (alpha = 0.80): protest (whiny, ineffective/honest, principled) exit (disloyal, opportunistic/self-reliant, autonomous), subversion (cheater, fraud/reasonable-response-to-unreasonable demands, resourceful) and compliance (easily bullied, submissive/can-do attitude, loyal worker).

Macro Scenarios: Assessing reactions to alternative accountability regimes.

(1) Shareholder Versus Stakeholder. This pair of scenarios went as follows:

"Corporation x is founded on the philosophy that it exists [for one overriding purpose--to maximize return to shareholders--and that, if every corporation were faithful to this mission, the net long-term result would be a vibrant economy that produces the greatest prosperity for the greatest number] [to achieve a variety of sometimes conflicting goals, including providing competitive returns to shareholders, ensuring all employees of good livelihoods and respectful treatment, maintaining good relations with customers, suppliers, and local communities, and pursuing sound social and environmental policies. In this view, if every corporation were faithful to theses multiple missions, the net long-term result would be a fundamentally more decent and just society.]"

Key dependent variables included positive-value-spins on the two models of governance (shareholder: "keeps the faith with investors," "maximizes efficiency and long-term viability of the organization"; stakeholder: "keeps faith with the society as a whole," "promotes social justice") and negative-value-spins (shareholder: "short-sighted profit maximizing", "dehumanizes everyone but the investors"; stakeholder: "creates a blank check for lazy, inept, or corrupt managers", "prevents managers from making tough decisions critical for long-term survival"). Alpha for the shareholder scale was 0.84 and, for the stakeholder scale, 0.81.

(2) Multiple Advocacy Versus Hierarchical Filtering. This pair of scenarios included: "Top management in this organization have worked together a long time and know each other well. [They think it most important to make decisions efficiently, minimizing unnecessary discussion and getting to the key points quickly. Accordingly, they have streamlined the decision process, requiring top managers to justify important decisions to the group but rarely requiring them to go outside the group to solicit critical suggestions.] [They think it most important to subject important decisions to thorough, critical analysis from a variety of viewpoints inside and outside the organization, even if it is time consuming. Accordingly, top managers can never be sure of the types of objections that might be raised to their proposals in decision-making meetings.]"

Key dependent variables included positive-value-spins of hierarchical filtering ("permits decisive action in rapidly changing situations," "preserves clear lines of authority") and on multiple advocacy ("compels decision-makers to confront unpleasant facts," "prevents the error of acting impulsively") and negative spins on hierarchical filtering ("encourages an over-confident and clique-ish attitude at the top," "promotes a rigid, authoritarian structure") and of multiple advocacy ("creates a serious risk of waffling and paralysis" "promotes anarchy--everyone wants a say on everything"). Alpha for hierarchial-filtering scales was 0.79 and, for multiple advocacy, 0.86.

Exploratory Interviews. Priority was placed on intensively examining respondents with unusually coherent and well-defined ideological world views. Accordingly, we employed the following rules. Libertarians were identified as individuals with high scores on the market-libertarianism factor (strong preference for market-based solutions and distaste for government intervention coupled with strong faith in people as rational and resilient) and with relatively low scores on the authoritarian-conservatism factor (an aversion to hierarchy). Liberal egalitarians were identified as individuals with low scores on the market libertarianism factor and low scores on the authoritarian-conservatism factor. Traditional conservatives were identified as high scorers on the traditional-conservatism factor and as likely to score in the middle range of the market-libertarianism factor (their scores on his factor should be inflated by their support for market solutions to social problems but should be deflated by their skepticism about the rationality of their fellow citizens). Finally, moderates or centrists were identified as scoring in the middle range of both factors. Interviews were eventually conducted with 26 managers who represented four distinct political points of view: 8 traditional conservatives, 7 liberal egalitarians, 5 libertarians, and 6 moderates or centrists. These interviews were designed to explore the explanations that managers offered for their reactions to each scenario from the structured questionnaire.

Results

Independent-variable scales. Maximum likelihood factor analysis indicated that the preference-for-simplicity and-explanatory-closure (PSEC) scale was reasonably unidimensional. The scree test indicated that the eigenvalue for the first factor (6.1) was over twice the size of that for the second factor (2.3) and the scale as a whole possessed adequate internal reliability (alpha = 0.77). By contrast, the same factor-analytic procedure indicated that best representation of the underlying correlational structure of the measures of ideological worldview was two-dimensional. Table 1 presents the variable loadings that emerged from the two-factor oblimin rotated matrix. The first factor captured more traditional or authoritarian conservatism. High-loading items included doubts about the trustworthiness of others, skepticism that even employees who have been treated fairly well will reciprocate by "doing the right thing when no one else is looking," placing a greater priority on avoiding exploitation (being taken for a sucker) than on failing to achieve mutually beneficial agreements, the belief that obedience is an important (and currently under-rated) virtue, the belief that people are rudder-less without strong leadership and wariness of government intervention in the economy. Low scores seemed to capture anti-authoritarian egalitarianism: a distaste for obedience and hierarchies, a relatively benign view as people as decent and fair, and a willingness to give those lower down in the pecking order the benefit of the doubt. The second factor captured a libertarian worldview, highlighting items that tapped into faith in the power of free markets, wariness of government, and skepticism toward government intervention in the economy, and a view of people as rational, resourceful, and self-reliant. Low scores seemed to capture anti-libertarian egalitarianism: support for a safety-net state that redistributes income and carefully watches for negative externalities of free-market behavior, doubts about how meritocratic society really is, doubts about "Great Man (Person) theories of social progress, and a view of individual humans as fragile and in need of considerable social support. Interestingly, high scorers on both factors tended to label themselves as conservative and Republican and low-scorers tended to label themselves as Democrats and liberal (in the conventional late 20th century sense of that term). When we created scales by summing the high loading items for each factor (>0.20), the scales had reasonable internal consistency (alpha = 0.78). For convenience, the scale derived from the first factor will be called "traditional conservatism" and the scale derived from the second factor will be called "market libertarianism."

Although scores on the two factors are moderately positively correlated (r = 0.22), it is a mistake to attribute much significance to that relationship, hinging as it does on the proportion of items pertaining to skepticism of government and support for markets (inflating the correlation) versus the proportion of items tapping views of human nature and support for authority and hierarchy (depressing the correlation). The low positive correlation between traditional conservatism and preference for cognitive closure (r = 0.21) is less easily dismissed, replicating as it does a long-standing body of work on the links between cognitive style and ideology (Lipsett & Raub, 1978; Tetlock, 1984). It is worth stressing, though, that confirmatory factor analysis applied to all individual-difference predictors supports that factorial distinctness of traditional conservatism and preference for cognitive closure..

Multiple Regressions. Table 2 summarizes a series of multiple regressions that used the two-factor measure of ideological worldview and the measure of cognitive style as predictors of what counts as both cognitive bias and organizational corrective. Control variables included private-public sector employment, seniority, income, education, and gender. Table 3 presents the mean evaluative reactions of respondents who scored in the top and bottom tertiles of the measures of ideological worldview and need-for-closure (the most consistent predictors) to each of the scenarios and their variants.

As the regression coefficients in Table 2, and the means in Table 3 reveal, ideology in its two-factor form proved to be a robust predictor of reactions across levels of analysis. Turning first to reactions to putative cognitive biases, traditional conservatives were more favorable to the no-excuses manager (who was arguably committing the fundamental attribution “error” of insensitivity to situational explanations) and less favorable to the empathic manager (who was arguably committing the flipside error of hypersensitivity to situational justifications and excuses that deflect responsibility for non-performance). There was also an unusually powerful association between certain single-item questions and reactions to the diverging attributional styles of managers. Respondents were especially positive in their evaluations of the “no-excuses” manager and skeptical of the effectiveness of the “sensitive-to-situational-explanations” manager to the degree: (a) they suspected “most people are continually looking for what they can get away with”; (b) they placed high importance on “preventing others from taking advantage of them”; (c) they felt that managers erred far more often in the direction of letting employees off the hook for outcomes they could control than in the direction of wrongly blaming employees for outcomes they could control (all r’s > 0.30). Indeed, the conservativism factor ceased to predict reactions to these scenarios after controlling for these three items (partial $r(240) = 0.09$). Suspiciousness of human nature -- which loads highly on the traditional conservatism but not on the libertarianism factor -- may thus well be driving this effect.

Traditional conservatives and market libertarians did, however, have similar reactions to the over/underconfidence scenarios: both reacted favorably toward the manager who felt that over-confidence was, all the other things being equal, a less serious error than under-confidence in private decision-making and in public self-presentations to employees. Again, though, more fine-grained analysis revealed unusually powerful associations between certain items and reactions to the over- versus under-confident managers. Partial correlation analysis revealed that traditional conservativism ceased to predict reaction to the scenarios after controlling for endorsement of the maxim that, in dealing with employees, it is important to "keep it simple, stupid." And modern libertarianism ceased to predict reactions after controlling for endorsement of the claim that human progress owed a lot to innovators with the courage of their convictions. Thus, although the two camps "on the right" agreed, they do not have the same reasons for taking this common stand. Support could be rooted in fear and distrust or in hope and techno-optimism.

Traditional conservatives were also the most favorably disposed to managers who taught that: (a) abandoning good ideas that had run into temporary trouble was a more common mistake than persevering with bad ideas (and vainly trying to save face and recoup sunk costs); (b) excessive "complexification" was a more common mistake than excessive simplification in decision making. Market-libertarianism predicted neither sentiment.

Traditional conservatives and market libertarians were largely on the same ideological wavelength though in offering cautiously non-committal responses to the forbidden base rate and taboo trade-off. Unlike the anti-authoritarians and those on the liberal left, these two groups refrained from condemning business practices that, in pursuit of profit, offended egalitarian or humanitarian sensitivities. The stance taken in both cases was most clearly rooted, according to partial-correlation analysis, in the degree to which respondents thought it a bad idea to mix business goals with concerns for social justice.

Turning to more cognitive strategies of coping with accountability, traditional conservatism, but not libertarianism, positively predicted the attribution of more positive traits to decision-makers who coped with accountability demands by taking clear simple stands for which they generated mutually reinforcing arguments and from which they could not be easily swayed. By contrast, traditional conservatism, but again not libertarianism, was negatively associated with the attribution of more positive traits to decision-makers who coped with accountability by engaging in pre-emptively self-critical thinking and by weighing legitimate competing perspectives against each other.

Traditional conservatives also stood out as the most critical of open-ended accountability (in which the boss keeps subordinates guessing where he stands) and most supportive of directive accountability in which the boss squarely assumes the mantle of responsibility for setting agendas and priorities. Partial correlational analysis suggested that this effect was partly rooted in the belief that people are rudder-less without strong leadership. Modern libertarians, by contrast, stood out as the stoutest defenders of outcome accountability and the most critical of precess accountability -- which they disparaged as “just more bureaucracy” and “rules for the sake of rules.”

Turning to the more overtly political strategies of coping with accountability, traditional conservatives and modern libertarians agreed in: (a) condemning the manager who, in their view, avoided the tough decisions by spreading budget cuts equally rather than targeting the cuts at the least productive and then restructuring to compensate for shifts in the division of labor; (b) applauding the manager who “bit the bullet” and “allocated scarce resources more rationally.” The ideological agreement broke down somewhat, however, in reactions to the voice, exit, subversion, and loyalty scenarios. Relative to the low scores on the two factors, traditional conservatives and modern libertarians were both more likely to deplore the subversive, loophole-exploiting response to rising accountability demands and, to a lesser extent, more likely to applaud the loyalty response. But libertarians had a much more positive reaction to the exit response (competent individuals exercising choices in self-correcting labor markets) than did the traditional conservatives who saw the same conduct as rather opportunistic. Traditional conservatives also had a more negative reaction to protest than did the libertarians.

Finally, sharp ideological cleavages emerged in managerial evaluations of macro scenarios that explored the tensions between the shareholder-stakeholder models of (external) corporate governance and the tensions between the hierarchical-filtering and multiple advocacy models of (internal) corporate governance. Traditional conservatives and modern libertarians alike judged top management more favorably to the degree management favored a monistic accountability regime centered around shareholders whereas low scorers on these two factor-analytic scales moved in the opposite direction, attributing the most positive traits to top managers who endorsed the pluralistic regime of accountability to stakeholders. Traditional conservatives (but not modern libertarians) judged top management more favorably when managers relied on hierarchical filtering to simplify the decision process (screening out weak or irrelevant arguments) than did those on the left (low scorers on factor 1) who reserved the most praise for top managers who embraced a multiple-advocacy style of decision-making that gave priority to considering inputs from a wide range of interest groups within the organization.

As both Tables 2 and 3 underscore, the cognitive-style results roughly paralleled those for traditional conservativism (the two scales correlate 0.21), with high scorers on the scale resembling traditional conservatives in their preference for simple decision-making styles across levels of analysis but most noticeably at the micro and meso levels. The expected interactive effects of conservatism and cognitive style generally did not, however, emerge. Private-sector employment and gender had significant zero-order correlations with decision-style preferences in the predicted directions but, with only a few exceptions, these effects disappeared in the multiple regressions. The exceptions included a tendency for women to prefer an openness to situational explanations for performance shortfalls and for public-sector managers to prefer to avoid controversy by spreading the pain of budget cuts equally across constituencies. Overall, the measures of ideology, and to a lesser extent cognitive style, were the statistically dominant predictors.

Some Supplementary Hermeneutic Analyses of Qualitative Interview Data.

These interviews had three guiding objectives: (1) to assess the explanations that managers offered for preferring one or another style of making decisions or of structuring accountability. Can these free-flowing, stream-of-consciousness, justifications be mapped onto the conceptual framework advanced earlier which traces diverging conceptions of good judgment to even more fundamental divergences in ideological worldview and in cognitive style? Does a qualitative analysis of the accounts that managers advance for their questionnaire responses point us in the same explanatory direction as do the multiple regression analyses reported earlier?; (2) to assess the degree to which respondents possessed an intuitive awareness of the types of arguments that might be advanced for alternative answers to the questionnaire and the degree to which they accepted or disparaged these alternative outlooks; (3) to assess managers' willingness, in principle, to change their minds if it turned out that some of the factual arguments underpinning alternative answers were correct.

The Allegedly Fundamental Attribution Error. Managers quite readily acknowledged the role of fundamental assumptions about human nature in shaping their openness to subordinates' accounts for failing to satisfy performance expectations. As the regression results led us to expect, the less trustworthy and committed employees they thought employees were "to do the right thing when no one is looking," the greater their reluctance to accept accounts. Managers with strong opinions on the perils of over-attribution or under-attribution virtually always had an accompanying "horror story." Those who deplored over-attribution usually had, ready at hand, "there-but-for-the-grace-of-God-go-I" parables in which decent, hardworking folks are temporarily overwhelmed by forces outside of their control — bad marriages, disease, depression, problem children... — but eventually overcome these forces and become esteemed members of the organization, an outcome that would have been impossible if their bosses had not been caring and empathic ("open doors, open ears, open minds"). Sometimes, the managers recalled that they themselves were once in the role of the floundering subordinate. By contrast, those most concerned with the perils of under-attribution came conversationally armed with stories that cut in the opposite direction: free-riders-exploit-gullible-managers" parables in which shady characters concoct one cockamamie excuse or justification after another for non-performance, in the process harming coworkers, the managers in charge, and the organization as a whole. One manager waxed Shakespeare-ian "to be kind I must be cruel." One does no one any favors by pretending that poor performance is not poor or does not impose burdens on others who wind up suffering financial penalties or taking on extra work. Indeed, a few of these "tough" managers had stories about receiving "Thank you notes" from people they had fired. These reformed "slackards" and "n'er do wells" eventually came to appreciate the "wake-up call";

(b) <u>Styles of Decision-Making and of Structuring Accountability</u>. Managers justified their preferences for certain styles of decision making, in part, by invoking competing views of human nature. Some managers, especially conservatives, subscribed to an implicit theory of leadership that stressed the importance of always projecting can-do confidence to others and not acknowledging errors as long as those errors can be "spun" into sound decisions. "if you don't believe in yourself, don't expect others to believe in you" (one defense of over-confidence at the level of private thought) and "Hamlets don't inspire confidence--you need to show a little bluster to get the troops moving" (a defense at the level of private self-presentation). Others, especially liberal egalitarians, subscribed to the view that one gains the long-term respect of others by honestly admitting one's shortcomings and displaying a willingness to heed constructive criticism and make timely mid-course corrections -- a distinctive strength, in the view of the female managers.

But rationales for decision-making styles were also rooted in competing views of the challenges confronting the organization. Some managers, especially traditional conservatives, explicitly declared that, in many choice situations, one quickly reaches the point of diminishing marginal returns for further information search and analysis whereas other managers, especially liberals on the left, were equally explicit about the need to be wary of "premature closure." Popular refrains among those most skeptical of the value of protracted cognitive assessments of problems included "Time is money," "Real managers make decisions, they don't talk about them," "On-the-one-hand-and-on-the-other presentations get tiresome very quickly," and, most crudely, "XXXX or get off the pot." Those more sympathetic to protracted cognitive assessments were equipped with fewer snappy aphorisms but the gist of their comments was plain enough: "Learn to live with uncertainty" and "As soon as you stop hearing that little voice in the back of your mind saying 'you might be wrong,' you are definitely in trouble." These cleavages in managers' intuitive theories of decision-making thus mirror themes in the now vast literature on contingency theories of social cognition and decision making (Chaiken & Trope, 1999) and the ongoing controversy over when simple heuristics generate as accurate assessments and as utility-enhancing decisions as do more complex and effort-demanding methods of making up one's mind (Gigerenzer and Todd, 1999).

Radical individualists, with their dislike of rule-bound systems that constrain individual initiative, were harshest in their evaluations of the process-accountability manager ("he personifies what was wrong with the old approach to running businesses" and "that's how you get $1000 toilet seats") and most favorable to the outcome-accountability manager ("who pays the people working for him the highest compliment: they are smart and they should use their smarts"). Traditional conservatives and liberal egalitarians had more mixed reactions, winding up on approximately the same locations on the rating scales but for somewhat different reasons. Conservatives rated both managers quite favorably. They resonated to the structure that the process-accountability manager gave employees and to the no-nonsense results-orientation of the outcome-accountability manager. Liberal egalitarians were also quite favorable to both managers. They resonated to the procedural fairness of the process regime and to the autonomy to stray from guidelines in the outcome regime--although the latter reaction was qualified by concern that the outcome accountability regime might unfairly assume more potential control over outcomes than is humanly possible.

Traditional conservatives offered the most positive evaluations of the executive who ran meetings quickly and directed discussion down the avenues he deemed productive ("isn't this what leaders are supposed to do?") and the least positive evaluations of the executive who adopted a low-profile in group discussions in order to stimulate creativity ("I understand the rationale but it looks like dilly-dallying and passing the buck to me"). Radical individualists and liberal egalitarians had one of their rare moments of convergence: they both made more positive character attributions to the manager who encouraged creativity among subordinates (" a reasonable strategy for encouraging open expression of unpopular opinions") and less positive attributions to the manager who played a more pro-active role steering the conversation ("he seems to want an echo chamber for his own views");

(c) Moral boundaries on the thinkable. Libertarians were least appalled by the life-money trade-off, often taking the position that no product is perfectly safe and that the market will punish manufacturers who sell particularly unsafe products. The few libertarians who thought the company should recall the cars with the potential defect did so not on the ground it was immoral to monetize life (a taboo trade-off--Tetlock et al, 1996), but rather on the ground that the company may not have been fully honest with its customers about the risks to their safety and thus prevented the customers from making money-life trade-offs of their own. Liberal egalitarians were most likely to denounce the executive who rejected the recall and their irritation focused on the taboo character of the trade-off ("decent human beings just aren't supposed to dollarize human life" and "all too typical, but still, who would want to do business with a company like that"). Traditional conservatives fell between the radical individualists and the liberal egalitarians. They shared the libertarian view that nothing is perfectly safe (and therefore that taboo trade-offs are an inevitable part of life) but shared the liberals' repugnance for the explicitness with which the executive translated lives into money. Unlike the liberals, though, who invoked a secular morality to express their repugnance, conservatives tended to use the religious language of "sin."

Liberal egalitarians were also most upset about the executive who kept in place a premium policy that boosted profits but hurt the poor whereas libertarians and traditional conservatives were least bothered. Indeed, libertarians were more positive in their evaluations of the executive who retained the profit-maximizing scheme ('He was honoring his responsibilities to his firm and to the shareholders, not pandering to political pressure groups. If he wants to give to charity, let him spend his own money, not other people's).

(d) Shareholder-Stakeholder Controversy. Managers for this study were drawn largely from the middle ranks of large organizations and had little experience making decisions that required answering directly either to shareholder or stakeholder representatives. Here we thus entered a realm remote from the cognitive and interpersonal challenges that participants faced in their everyday lives--answering pressing questions such as “Is this person trustworthy or competent?” and “Should I decide now or give it more thought?” The tension between the two models of corporate governance struck many as a tad contrived. In the words of one centrist skeptic: “I don’t get it. How can you please shareholders if everyone--from the customers to the politicians--is furious with you. And how can you keep stakeholders happy if you don’t have any money to spread around?” That said, though, the interviews also revealed why ideology still predicted preferences for models of corporate accountability. Conservatives and libertarians gravitated toward the shareholder model largely for the ideologically correct reason (the primacy of property rights--shareholders are owners of the corporation and managers are their agents). Conservatives, though, added a cognitive-stylistic reason (an almost visceral distaste for messy accountability arrangements that blur lines of authority-- “where’s the boss in this system and how will we ever know if he’s doing a good job?”-- and that make it difficult to hold anyone accountable for anything-- “where does the buck stop in a set-up like that?”) Egalitarians also arrived at the “right” answer (the stakeholder model) for largely the “right” political reasons: the need to regulate markets and control negative externalities (“there need to be some checks and balances on corporations,” “how else can the little people be heard,” and “what’s wrong with a bit more democracy in the workplace”).

(e) Acknowledging the legitimacy of other perspectives. Although many respondents were aware of arguments against the positions they preferred, awareness should not be confused with tolerance, less still willingness to change one’s mind. Let’s revisit the controversy over corporate governance. Conservatives understood stakeholder concerns and the necessity of taking them into account as a means to the end of profit maximization. But they feared that egalitarian efforts to promote the stakeholder vision rested on a fundamental misunderstanding of both human nature and of capitalism that would impair long-term growth by enmeshing corporate executives in ever more elaborate webs of communitarian regulations (“You can’t do anything until the local politicians, labor unions, environmentalists, minority-rights activists, and other assorted opportunists have all had their palms crossed with silver") and by creating an inexhaustible source of excuses for poorly performing managers to put off long-suffering shareholders (as one freshly minted MBA pontificated, "the stakeholder model aggravates the principal-agent problem at the heart of corporate capitalism -- it gives agents too much wiggle room to evade their responsibility to promote the principal's interest"). Those on the left often understood the value of "incentivizing" management to make the hard choices that are necessary to promote growth but felt that the concentration of power and wealth had just become too lopsided ("People who like the shareholder model are just out for number one and they really don't give a damn what happens to anybody else" and, more philosophically, "Society created corporations and it has the right to define the rules that they operate under").

Shifting to the micro end of the continuum of questions posed, we again see considerable awareness of the reasons for taking a position on the other side. Let's revisit the fundamental attribution error. Conservatives generally conceded that they might sometimes be too hard on employees (in this case, too slow to acknowledge situational justifications and excuses) but insisted that, although many might think them hard-hearted, they had no difficulty living with themselves: "somebody has to draw a line somewhere" and "it is only human nature to keep testing the limits." Liberals generally acknowledged that they might occasionally be "suckers" but thought the balance they were striking was best for themselves ("I can look myself in the mirror") and for the organization ("people who feel respected will respect the company").

In the language of decision theory, most managers--when challenged--acknowledged that there was no dominant (trade-off-free) option. But the acknowledgment of trade-offs was rarely spontaneous and tended to have a grudging, perfunctory quality to it. In the language of cognitive-consistency theory, managers seem to have rather thoroughly rationalized their preferred styles of thinking, evaluating, and acting. Perceptions of facts and endorsements of values seem to have been in close alignment. If a characteristic managerial stance emerged from the interviews, it appears to have been belief-system overkill in which participants insisted that their preferred working style minimizes the more common type of error (factual claim) and the more serious type of error (close to a moral or value judgment). Conservatives placed priority on minimizing what, for convenience, might be called Type I errors such as failing to hold employees accountable for outcomes potentially under their control, exaggerating the complexity of fundamentally simple situations, pursuing additional information beyond the point of diminishing marginal returns, abandoning sound policies that run into temporary trouble, and resisting misguided efforts to make the decision process more democratic, pluralistic and --in their view--chaotic. This policy posture was justified by maintaining that these Type I errors were both more likely and more serious than the logically complementary errors that tend to preoccupy anti-authoritarians and egalitarians and that do so for roughly complementary reasons.

DISCUSSION

Opinions about cognitive biases and organizational correctives hinge on the ideological worldview and cognitive style of the beholder. Most fundamentally, managers of varying political persuasions subscribe to markedly different assumptions about human nature that, in turn, shape their underlying philosophies of governance. Traditional conservatives believe that "most people" look for and exploit loopholes in accountability systems whereas low scorers on factor 1, anti-authoritarians egalitarian, believe that most people will refrain from exploiting loopholes as long as they feel fairly treated. These competing views lead, among other things, to different assessments of the "fundamental attribution error." Conservatives deem it prudent managerial practice to communicate to subordinates a low tolerance for justifications and excuses that invoke "situational causes" for conduct that falls short of organizational expectations. People will be more motivated to behave properly if they believe that improper behavior will almost automatically tarnish their reputations--a social variant of the legal doctrine of strict liability. From a conservative perspective, failing to hold people responsible for outcomes that they could have controlled is arguably a more serious error than holding people responsible for outcomes that they could not control (cf. Rodgers, Taylor, & Foreman, 1992). By contrast, the anti-authoritarian egalitarians see the "fundamental attribution error" as punitive, not prudent. They disagree with conservatives about both: (a) the frequency with which subordinates will invent specious justifications and fictitious excuses for sub-standard performance; (b) the relative importance of avoiding Type I errors (condemning the innocent) versus Type II errors (acquitting the guilty), deploring the former error to a greater degree.

Traditional conservatives and high scorers on preference for cognitive closure were also much more likely to concur with the sentiment that the world is often far simpler that it initially appears to be. They viewed simplicity as evidence of insight, not simple-mindedness whereas low scorers on these scales viewed complexity as evidence of thoughtfulness, not confusion. Conservatives also believed that lack of will power and of commitment to principles are common human failings whereas anti-authoritarian egalitarians believed that an unwillingness to entertain self-critical thoughts and to re-examine basic assumptions are common human failings. Extending previous work in political psychology on the connections between political ideology and cognitive style, these competing views of the world translated quite directly into different evaluations of a host of putative biases, including the relative perils of over and under-confidence, of staying the course versus escalating commitment to sunk costs, of simple versus complex choice heuristics, of pre-emptive self-criticism versus defensive bolstering as strategies of coping with accountability, and of directive versus open-ended strategies of structuring accountability. Consider the markedly different evaluations of these two groups of “over-confidence” and of “staying the course.” Traditional conservatives believe that the can-do determination and optimism of the over-confident decision-maker more than offsets the risk of persevering with a wrong assessment of the situation. Anti-authoritarian egalitarians believe that the capacity of self-critical thinkers to realize quickly that they are on the wrong path more than offsets the risk of prematurely abandoning a good policy that has run into temporary difficulties. And, at the level of self-presentation, they think it a bad idea for managers to wear a worry-free mask and stress the benefits of keeping coworkers (they dislike the term “subordinates”) reasonably fully informed.

Ideologically grounded disagreements over human nature and the causal structure of the social world parallel in key respects disagreements over how to manage people--at both a micro and macro level. Traditional conservatives and their high-preference-for-cognitive-closure allies approve of managers who communicate their policy preferences clearly to subordinates and approve of subordinates who respond equally decisively whereas low scorers on these scales see advantages in encouraging open, balanced debate, and cultivating an atmosphere of normative ambiguity that keeps coworkers guessing--at least for a while. Those on the political left--and this now includes both anti-authoritarian and anti-libertarian egalitarians-- also offer more muted negative evaluations of the manager who responds in a borderline-dishonest, loophole-exploiting manner to an accountability regime perceived as unjust. Some egalitarian managers see such behavior as an understandable human bid to "empower oneself" when confronted by insensitive or arrogant authorities, with even occasional quasi-Marxist warnings about alienating and dehumanizing those lower in the pecking order.

At the most macro level, both traditional conservatives and modern libertarians favored the monistic regime of accountability solely to shareholders ("It is hard enough to do one thing well, less still half a dozen") whereas the anti-authoritarian and anti-libertarian egalitarians embraced the value of accountability to a host of constituencies whose interests would often have to be combined in different ways in different situations ("Corporations can't be allowed just to focus on making money" and "There is more to running a society than just efficiency").

Looking back on the full range of ideology/managerial-policy preference correlations, it becomes clear that the more macro the issue domain, the more likely traditional conservatives and modern libertarians were to agree. As one might expect from the variable loadings in the rotated factor matrix, high scorers on both dimensions rose to defend property rights and free markets (unless national security/sovereignty issues were implicated, in which case traditional conservative support quickly fades) and to oppose what they frequently saw as misguided government efforts to help the less competitive and to control externalities. By contrast, the more micro the issue, the more likely traditional conservatives and modern libertarians were to be temperamentally and stylistically at odds with each other (agreeing strongly with each other only on the adaptive value of over-confidence and on the appropriateness of using forbidden base rates). Libertarians tended to be more cognitively flexible (or, if one prefers, unprincipled), less preoccupied with precedent, status and hierarchy (or, if one prefers, less loyal to existing organizational structures) and more prone to have an upbeat assessment of their fellow humans (or, if one prefers, an unrealistic or naive assessment). In certain respects, libertarians resembled anti-authoritarian egalitarians, especially in their lack of enthusiasm for deference and obedience to established ways, but breaking abruptly with this outlook when questions tapped into broader attitudes toward social equality, markets, and government. And, in certain respects, traditional conservatives resembled the anti-libertarian egalitarians, especially in their doubts about the self-sufficiency of the isolated individual, but breaking sharply with this camp on the more macro questions of societal and economic organization. In brief, this data-set allows us to observe in managerial microcosm the cross-cutting tensions documented by survey researchers in society at large between moral conservatism/secular liberalism and economic individualism/egalitarianism (Kinder, 1998). If nothing else, the current results demonstrate that organizational behaviorists err if they suppose that these deep differences in worldviews do not insinuate themselves into a wide array of managerial preferences and practices. there is no "Chinese wall" between attitudes toward work and toward politics.

Taken as a whole, the pattern of findings suggests the usefulness of revisiting a much maligned but still standing distinction in philosophy and social science: that between facts and values. One fruitful hypothesis for follow-up work is that ideological disagreements over cognitive biases and organizational correctives can be rooted, to varying degrees, either in competing views of the facts (how likely is this or that inferential error in this type of situation?) or in competing values (how important is it to avoid this or that type of inferential error?). Disagreements largely rooted in different appraisals of a common reality should, in principle, be resolvable via recourse to evidence. From this standpoint, if we could persuade conservatives that they have exaggerated the degree to which people are inherently untrustworthy and prone to take advantage of empathic managers who are open to situational accounts for non-performance, conservatives should become less tolerant of the fundamental attribution error. Or, if we could persuade low-need-for-closure respondents that simple heuristics perform as well as more complex decision rules developed through grueling hours of group discussion (cf. Gigerenzer and Todd, 1999), these respondents might be quicker to realize that they have reached the point of diminishing returns for further deliberation.

By contrast, disagreements largely rooted in values should be profoundly resistant to change. Some conservatives may so detest being "suckers" that they are willing to endure a high rate of false rejections of employee accounts. Some libertarians might oppose the ("confiscatory") stakeholder model even when confronted by evidence that concessions in this direction have no adverse effects on profitability to shareholders. Expropriation is expropriation, no matter how prettified. And some egalitarians might well endorse the stakeholder model even if they were shown compelling evidence that it reduces profits. Academics who rely on evidence-based appeals to change minds when the disagreements are rooted in values may well be wasting everyone's time.

Placed in the broadest perspective, the current findings remind us that decision theorists are not the only people with strong opinions on the nature of good judgment and rationality. Decision theorists characteristically adopt an explicitly prescriptive stance to their subjects of study: there are right answers that can be derived from well-defined axiomatic systems of logic such as Bayes theorem or expected utility theory or game theory. To paraphrase that personification of high-handed prescriptivism, John Milton in Paradise Lost, their task is to explain the ways of God to man, not the ways of man to God (where we should translate "God" for late 20th century audiences as eternal truths of mathematical models of choice).

The intuitive theories of good judgment that many managers possess are not anchored in mathematical axioms and do not possess in a rigorous hypothetico-deductive structure. Rather these intuitive theories are a conceptual mish-mash: loose amalgams of hunches that rest on speculative assumptions about human nature (how prone are people to exploit loopholes in rules and accountability regimes?), the efficacy of simple rules of thumb, and ultimately the nature of the good society (how should we structure accountability ground rules so as to strike reasonable balances among such diverse values such as efficiency, autonomy, equality, and fairness?). Insofar as this mish-mash coheres, psychological theory suggests that it does so in response to a combination of intrapsychic-consistency pressures to justify one's working style to oneself--am I doing the right thing?-- and self-presentational pressures to justify one's working style to others (cf. Schlenker, 1985).

Strictly speaking, there is no direct contradiction between logic and psycho-logic, between the formal prescriptivism of decision theory and the informal ideological hunches of decision-makers who cope with messy human and organizational realities from day to day. There is indeed a rough complementarity. Formal prescriptive theories make minimal assumptions about the external world but extensive assumptions about how decision-makers should integrate cues once they have been assigned likelihood or utility values whereas intuitive theories make extensive assumptions about the world but are notoriously vague on the precise rules for combining elementary beliefs and preferences into final judgments. But there is also a palpable tension. Micro-economic reductionists might be tempted to argue that disagreements grounded in ideology and cognitive style are merely atavistic vestiges of a more primitive social order, soon to be swept away by the intensification of competitive market forces that have ever-closer-to-zero tolerance for obfuscation, fuzzy thinking, and self-serving posturing. What counts is what works and it is only a matter of time before we are all converted into Bayesian belief updaters converging on common truths about human nature, the social world, and how best to go about understanding both. This is a crude but popular variant of the end -of-ideology and end-of-history theses (Friedman, 1999; Fukuyama, 1991). Other scholars, of a more pluralistic bent, might stubbornly insist, with Immanuel Kant and Isaiah Berlin, that from the crooked timber of humanity, no straight thing can be built, and that it will prove impossible to banish ideological posturing and human imperfections from business. Even in perfectly competitive markets pulsating signals at the speed of light, there will be numerous niches of ever changing shape and size where each ideological worldview can survive, even thrive. In this view, if one is willing to concede that human nature is at least as bafflingly complex as that conceptual prototype of economic efficiency, the stock market, where bullish and bearish observers seem fated to co-exist indefinitely in dialectical interdependence, why should one resist the notion that an equally broad spectrum of managerial opinion on human nature will prove sustainable in the face of even ferocious market competition?

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Table 1
Variable Loadings in Rotated (Oblimin) Factor Matrix from

Maximum Likelihood Analysis

Variables	Authoritarian Conservative	Market Libertarianism
Self-identification as conservative	+0.22	+0.19
Untrustworthiness of other people	+0.38	+0.04
Can count on employees doing right thing when no one looking	-0.35	0.00
Underlings understand a lot	-0.22	+0.02
Even the strong and need help	+0.14	-0.27
“Keep it simple, stupid”	+0.41	+0.08
Embarrassed by talk of “subordinates”	-0.27	-0.10
System is meritocratic	+0.30	+0.26
Obedience is an under-rated virtue	+0.29	0.00
Don’t mix business goals with social justice	+0.25	+0.41
Society owes much courageous innovators	+0.16	+0.49
Avoiding exploitation less important than joint gain	-0.37	+0.02
People are rudder-less without leaders	+0.43	-0.05
Free markets promote prosperity	+0.21	+0.46
Need government to check impact of free markets on inequality/environment	-0.20	-0.35
Government creates more problems than it solves	+0.24	+0.38

Table 2

Multiple Regression Predictors of Evaluations of Micro, Meso and Macro Scenarios

Scenarios	Key Predictors (Standardized Coefficients): Traditional Conservatism	Modern Libertarianism	Need Closure
Cognitive Biases			
Overattribution (R^2=0.25)	β= +0.41**	β= +0.10	β = +0.30*
Underattribution (R^2=0.24)	β= -0.36**	β= -0.07	β= -0.24**
Over-confidence (R^2=0.22) (Private Thought)	β= +0.25**	β= +0.23*	β= +0.27**
Under-confidence (R^2=0.20) (Private Thought)	β= -0.29**	β= -0.22*	β= -0.23**
Over-Confidence (R^2=0.19) (Public Self-presentation)	β=+0.23*	β=+0.22*	β=+0.03
Sunk costs trump staying the course (R^2=0.18)	β= -0.29*	β=+0.01	β=-0.25
Complex heuristics trump simple (R^2=0.25)	β= -0.35*	β=-0.02	β=-0.32*
Use Morally Suspect Base Rate (R^2=0.17)	β= +0.25*	β=+ 0.27*	β= 0.02
Make Taboo Trade-Off (R^2=0.12)	β= +0.08	β= +0.31*	β= -0.01
Coping with Accountability			
Pre-emptive self-criticism (R^2=0.23)	β= -0.33**	β= +0.02	β= -0.34**
Defensive Bolstering (R^2=0.22)	β= +0.26**	β= +0.01	β= +0.23*
Directive Accountability (R^2=0.15)	β= +0.22*	β=+ 0.03	β= +0.19*
Open-ended Accountability (R^2=0.14)	β= -0.23*	β= 0.00	β= -0.19*
Process Accountability (R^2=0.11)	β= 0.03	β= -0.25*	β=+ 0.13

Outcome Accountability	(R^2=0.13)	β= +0.14	β=+ 0.28*	β= +0.09
Diffusion of pain/ minimize protest	(R^2=0.24)	β= -0.28**	β= -0.32**	β= -0.07
Concentrate cuts/ maximize efficiency	(R^2=0.23)	β= +0.24*	β= +0.33**	β= -0.10
Protest	(R^2=0.19)	β= -0.26**	β= -0.18	β= -0.14
Exit	(R^2=0.18)	β= +0.02	β= +0.38**	β= +0.02
Loophole Exploitation	(R^2=0.29)	β= -0.34**	β= -0.33**	β= 0.00
Loyalty	(R^2=0.17)	β= +0.26*	β= +0.18*	β= +0.02
<u>Designing Accountability Systems</u>				
6A: Shareholder	(R^2=0.31)	β= +0.31**	β= +0.39**	β= +0.10
6B: Stakeholder	(R^2=0.27)	β= -0.29**	β= -0.35**	β= -0.08
7A: Hierarchical filtering	(R^2=0.18)	β=+0.30**	β= -0.04	β= +0.26*
7B: Multiple advocacy	(R^2=0.17)	β= -0.20*	β= +0.01	β= -0.28*

**significant at .01 level

*significant at .05 level

Table 3

Mean Evaluations of Scenarios

Scenarios	Bottom and Top Tertiles		
	Low/High Conservatism	Low/High Libertarianism	Low/High Need Closure
Overattribution	3.10 vs. 5.12	3.86 vs. 4.03	3.52 vs. 5.03
Underattribution	5.21 vs. 3.99	4.39 vs. 4.32	4.83 vs. 3.86
Over-confidence (Private Thought)	4.02 vs. 5.22	4.35 vs. 4.91	4.21 vs. 5.03
Under-confidence (Private Thought)	5.08 vs. 3.80	4.28 vs. 3.74	4.71 vs. 3.72
Over-confidence (Public posturing)	3.86 vs. 6.02	4.12 vs. 5.73	4.41 vs. 5.55
Sunk costs trump staying the course	6.02 vs. 3.52	5.05 vs. 5.37	6.15 vs. 3.71
Complex heuristics trump simple	6.33 vs. 3.66	5.14 vs. 5.01	5.99 vs. 3.18
Use morally suspect base rate	3.22 vs. 5.21	3.15 vs. 5.35	3.66 vs. 4.08
Make taboo trade-off	4.46 vs. 4.71	3.85 vs. 5.53	4.03 vs. 4.25
Pre-emptive self-criticism	5.39 vs. 4.21	4.78 vs. 4.98	5.54 vs. 4.22
Defensive Bolstering	4.05 vs. 5.47	4.70 vs. 4.91	4.04 vs. 5.54
Directive Accountability	4.72 vs. 6.05	5.15 vs. 5.25	4.42 vs. 5.89
Open-Ended Accountability	5.42 vs. 4.59	5.08 vs. 5.03	5.61 vs. 4.48
Process Accountability	5.23 vs. 5.33	5.26 vs. 3.88	5.14 vs. 5.41
Outcome Accountability	4.84 vs. 5.45	4.32 vs. 5.75	5.08 vs. 5.24

Diffusion of pain/ minimize protest	4.85 vs. 2.80	5.04 vs. 2.71	3.76 vs. 4.03
Concentrate cuts/ maximize efficiency	3.29 vs. 5.35	3.07 vs. 5.65	4.08 vs. 4.25
Protest	4.62 vs. 3.13	4.14 vs. 3.65	4.33 vs. 4.20
Exit	4.13 vs. 4.25	3.49 vs. 5.45	4.12 vs. 4.17
Loophole Exploitation	3.76 vs. 2.83	3.80 vs. 2.70	3.53 vs. 3.55
Loyalty	4.93 vs. 5.38	4.62 vs. 5.17	4.31 vs. 4.86
Shareholder	3.37 vs. 5.21	3.16 vs. 5.37	4.20 vs. 4.31
Stakeholder	5.52 vs. 3.06	5.23 vs. 3.26	4.40 vs. 4.10
Hierarchical filtering	3.37 vs. 4.89	3.90 vs. 3.83	3.41 vs. 4.26
Multiple advocacy	5.45 vs. 4.21	4.73 vs. 4.59	4.99 vs. 4.32

Higher scores indicate a more positive evaluation of the manager, coping strategy, or accountability regime.