SELF-INTEREST AND ORGANIZATIONAL PERFORMANCE: AN EMPIRICAL EXAMINATION WITH U.S. AND BRAZILIAN MANAGERS

Autoria: Sergio G. Lazzarini, Gazi Islam, Luiz F. Mesquita

ABSTRACT
The strategy literature has drifted towards a polarized view of managers as either individuals concerned with mitigating self-interest (e.g. agency and organizational politics theories) or individuals who actively motivate and engage team members in the pursuit of common organizational goals (e.g. shared cognition and justice theories). Using a survey sample of 419 U.S. and Brazilian managers, we propose and find instead that managers exhibit complex attitudes and behaviors that do not reflect a single perspective of human behavior in the workplace. Managers who perceive self-interest to be common are not necessarily less concerned with other issues unrelated to self-interest (e.g. fairness and adequate treatment for team members). Managers also appear to adopt behaviors that blend recommendations consistent with multiple theories. For instance, we find that managers who are concerned with justice not only emphasize practices to foster justice, but also practices that directly follow from agency theory (such as performance evaluation and incentives); and the joint emphasis in those practices appear to positively influence organizational performance. By outlining the predictions of distinct theories and exploring their possible interactions, our study contributes with a more complete picture of the interplay between managerial attitudes, managerial behavior and performance.

INTRODUCTION
In the pursuit of explaining the relation between managerial practices and the performance of organizations, scholars have made diverse assumptions regarding managers’ interpersonal attitudes and the influence of such attitudes on their behavior in the workplace. Some scholars, emphasizing the hazards of shirking (e.g. agency theory: Jensen & Meckling, 1976) and self-serving political behavior (Milgrom & Roberts, 1990), depict managers as individuals who perceive or anticipate potential self-interest by their subordinates; based on these beliefs, managers then act by imposing formal governance mechanisms such as incentives, supervision, and organizational rules. Other scholars contend that this view of managers is a “narrow one” (Donaldson, 1990: 372), either rejecting or dispensing with the assumption of self-interest (e.g. Conner & Prahalad, 1996; Donaldson, 2008; Frey & Jegen, 2001). In these views, managers should focus on interpersonal aspects such as fairness (Folger, 1986; Mesquita & Brush, 2008).

We submit that the received portrait of managers as either opportunism-controllers or active-motivators does not pay justice to the much more complex set of attitudes and behaviors that can be found in actual organizations. It is not clear whether managers really follow a single perspective on human behavior or instead attempt at combining managerial practices that they perceive to be performance-enhancing. Also, because managers interact with their subordinates in myriad ways and instances, there is room for multiple perceptions depending on the particular context in which parties are interacting (Lewicki, McAllister, & Bies, 1998). Lastly, from a practical standpoint, if the discipline of strategic management is to be of any service to managers regarding how particular practices lead to advantages in the marketplace, one needs to examine in a broader sense how attitudes and their consequential behaviors influence the ability of the firm to meet or exceed established goals (Gottschalg & Zollo, 2007).

We test these ideas using a survey with 419 managers from the United States and Brazil, working in distinct industries and functions. Because distinct cultural traits (Hofstede, 1997) and various task characteristics in the work environment (Hackman & Wageman, 1995) should influence perceptions of how people behave, collecting data from two distinct countries and from managers involved in diverse functions allows us to increase the range of attitudes and behaviors that can be observed in practice. Although we examine how
responses vary across those two subsamples, our goal is neither to propose nor test hypotheses related to country-specific effects. Rather, we present key alternative theories of managerial attitudes and behaviors, and describe the results of an international study carried out to test these hypotheses, with particular emphasis on how distinct managerial perspectives jointly contribute to explain organizational behaviors and performance.

THEORETICAL FRAMEWORK

In order to model managerial attitudes and behaviors and how they associate with organizational performance, we leverage theory elements that are based on distinct behavioral assumptions regarding the self-interestedness nature of human action. Some theories rest on the assumption that individuals try to maximize their own gains—“personal wealth, status, leisure and the like” (Donaldson, 1990: 371)—even at the expense of others in the organization. Williamson (1985) even proposes an extreme form of self-interested behavior, which he terms opportunism or “self-interest seeking with guile” (p. 47). Other theories dispense with this assumption and identify alternative sources of conflict even when actors do not necessarily try to maximize their own gains and are instead concerned with other issues (e.g., actors may value fairness in social interactions). We thus present predictions from each theory based on the following logic: depending on managers’ propensity to evaluate others in the organization as self-interested or not—i.e., managers’ attitudes towards the self-interestedness of others—they are likely to emphasize distinct managerial actions to address the source of conflict and increase organizational performance—i.e., they are likely to behave in ways that are consistent with their attitudes (e.g. Eagly & Chaiken, 1993).

We do not imply that attitudes towards self-interestedness are the sole determinants of managerial action; other contextual or normative forces may also induce managers to act in particular ways. However, we do propose that each theory, resting on specific assumptions about human behavior, will generate distinct patterns of managerial action. Also, our modeling of distinct theoretical elements is not intended to be exhaustive; instead, we try to build upon existing core debates in the literature (as briefly outlined in the introduction) and exploit possible associations between such contending elements involving different assumptions about human behavior. In Figure 1, we graphically represent our overall model, depicting how alternative managerial attitudes lead to specific forms of behaviors, which in turn, impact performance.

<<Figure 1 around here>>

Theories based on the assumption of self-interest

Agency

Agency theory focuses on settings where a “principal”—the owner of a company, the manager of a division, the supervisor of a team, etc.—is concerned with avoiding that “agents”—i.e. subordinates—engage in a series of undesirable behaviors such as shirking, accommodation, and lack of attention to certain aspects of the task (e.g., service quality). The underlying assumption is that agents’ self-interest is misaligned with the principal’s objectives (Jensen & Meckling, 1976). Thus, if the set of behaviors valued by the principal impose costs to the agents, then—absent appropriate organizational mechanisms—the latter will tend to exert suboptimal effort (Gibbons, 1998; Holmstrom & Milgrom, 1991), thereby dampening the performance of the organization.

Given their evaluation of agents’ self-interestedness, managers’ rational behavioral response, according to agency theory, will be to emphasize supervision, adopt performance-contingent compensation contracts, or both (McLean Parks & Conlon, 1995). Direct supervision of agents’ behavior, however, may be costly and even unfeasible when managers’ cannot directly observe what their subordinates are doing all the time and in all tasks performed (Brickley & Dark, 1987). In this case, managers may craft incentive contracts that compensate the subordinate according to some observable performance indicator; such
contingent compensation may involve, for instance, a monetary bonus conditional on certain individual and/or group-based targets (Knez & Simester, 2001), as well as promotion schemes that are conditional on the individual’s past performance within the organizational unit (Brickley, Smith Jr., & Zimmerman, 2002). As a consequence of these managerial actions, agents’ self-interest will become, to some extent, more aligned with the overall objectives of the organizational unit; their rational response will be to engage in behaviors that are valued by their managers. Therefore:

Hypothesis 1. (a) Managers who perceive agency problems as common will emphasize solving agency problems in their unit (e.g. direct supervision and/or performance-contingent compensation contracts); (b) as a consequence of this increased emphasis to solving agency problems, the performance of the unit will increase.

Organizational politics

Organizational politics involves social interactions through which individuals or groups of individuals attempt to influence others and affect the process of decision-making. Although some authors consider politics as a natural process characterizing the dynamics of organizations (e.g. Pfeffer, 1978), other authors adopt a more negative view by considering politics as a mechanism through which groups of individuals seek and defend their self-interest. Thus, politics can encompass “a variety of different types of opportunistic behavior” (Ferris et al., 1989: 143) or, more specifically, contexts where people “band together into small groups and are inattentive, perhaps even destructive, to the needs of others” (Cropanzano, Howes, Grandey, & Toth, 1997: 159). Faced with such negative social interactions, some individuals will reduce their willingness to contribute to the organization and even depart (Ferris et al., 1989; Gandz & Murray, 1980), while others will excessively waste time and effort to influence decisions for their own benefit instead of engaging in other actions that could otherwise increase the performance of the organizational unit as a whole (Milgrom & Roberts, 1990).

Managers who perceive their personnel as politics-oriented and anticipate potential dysfunctional consequences are likely to respond in a variety of different ways. They may simply diagnose the existing “clusters of interest” in organizations and attempt at reconciling conflicting demands (Witt, Andrews, & Kacmar, 2000). Managers may also establish rules and procedures so as to avoid excessive influence efforts; e.g., clear financial rules for the approval and funding of internal projects (Milgrom & Roberts, 1990). As managers emphasize actions that help curb the extent to which factions within the organizational unit can succeed in seeking self-serving decisions, they are more likely to attain performance that is more consistent with their initial expectations. Thus:

Hypothesis 2. (a) Managers who perceive politics as common will emphasize dealing with politicking among their team members (e.g. reconciling conflicting demands, establishing rules etc.); (b) as a consequence of this increased emphasis to dealing with politicking, the performance of the unit will increase.

Theories not based on the assumption of self-interest

Shared cognition (mental models)

While the former two approaches begin from an assumption of divergence of interests among organizational members, managers will also need to foster what the literature has termed “shared mental models” (Cannon-Bowers & Salas, 2001): unit members will need to develop accurate team-level conceptions of a given situation, understand the processes involved in improving organizational performance, and develop an accurate prediction of future events and appropriate behaviors within the workplace (Klimoski & Mohammed, 1994; Weick & Roberts, 1993). Shared mental models allow anticipation of others’ actions and needs through shared knowledge, which improves coordination (Mathieu, Heffner, Goodwin,
Salas, & Cannon-Bowers, 2000; Mohammed & Dumville, 2001) and leads to superior team performance (Waller, Gupta, & Giambatista, 2004). Consequently, managers who are concerned with the coordination of ideas and opinions in the team are more likely to emphasize a series of practices such as committees for the collective discussion of strategies, articulation of distinct points of view to build consensus, mutual understanding of the roles and responsibilities of team members, and so on. Therefore:

Hypothesis 3. (a) Managers who perceive misalignment in mental models as common will emphasize creating shared mental models in their unit (e.g. establishing committees for discussion, fostering consensus etc.); (b) as a consequence of this increased emphasis to creating shared mental models, the performance of the unit will increase.

Interactional justice

While constructing shared mental models is important for the cognitive alignment of unit members, it leaves unaddressed the interpersonal link between members, a link which has been shown to be significant in organizational functioning (e.g. Graen & Uhl-Bien, 1995). In particular, a set of motivational factors which are grouped in the literature as “interactional justice” (Bies & Moag, 1986), the lack of which causes a sense of injustice (Folger, 1986) with regards to superiors, is key in this regard. Individuals may value just treatment even in cases where organizational outcomes are not perfectly aligned their self-interest. For instance, members’ resentment towards lower individual compensation may be ameliorated if managers express concern about the situation and justify the resulting outcome (Folger, 1986).

Whether organizational policies are seen as fair depends to a large extent on whether those policies are transmitted in interpersonally sensitive and respectful ways (Bies & Shapiro, 1988). Because such perceptions of fairness are important antecedents for performance (Colquitt et al., 2001), managers who perceive affective responses to be commonplace should foster fairness in social interactions with team members to augment the performance of their units. Managers could, for instance, actively take into consideration suggestions by team members and justify why certain decisions were made, publicly recognize individuals who devoted high effort to organizational tasks (Brown & Leigh, 1996), express concern about the personal life of members and deal with stress (Graen & Scandura, 1987), among other actions that are expected to build a sense of justice. Thus:

Hypothesis 4. (a) Managers who perceive affective responses as common will emphasize creating a sense of interactional justice in their unit (e.g. justifying why decisions were made, expressing concern about members etc.); (b) as a consequence of this emphasis to fostering interactional justice, the performance of the unit will increase.

Mixed attitudes and behaviors

The theories discussed before predict distinct attitude-behavior relations based on a common idea: to increase organizational performance, managers will emphasize actions that are consistent with their assumptions about the intent of organizational members. Indeed, the literature examining the behavioral foundations of managerial action has often portrayed two types of managers: individuals who believe that self-interest is pervasive and act accordingly, and individuals who are more concerned with motivation and team engagement (e.g. Davis et al., 1997; Frey & Oberholzer-Gee, 1997; Ghoshal, 2005). Some even propose that managerial behaviors intended to mitigate self-interest will actually signal distrust and further beget self-interest. As originally advanced by Strickland (1958), individuals may become less motivated to pursue organizational goals if they perceive the existence of external controls that are crafted to suppress defection (Deci & Ryan, 1985; Fehr & Gächter, 2000; Frey & Jegen, 2001). Thus, the logic goes, managers who engage in actions that will inspire trust and
motivate team members towards achieving collective goals should outperform other managers who simply try to curtail self-interest (Donaldson, 2008).

We posit that such polarized view of managers deserves careful revision, because in practice managers may engage in a mixed, complex set of actions that do not simply follow the tenets of a single perspective on human behavior. In particular, we posit that attitudes related to self-interest may influence behaviors not necessarily related to self-interest, and that attitudes not related to self-interest may affect behaviors not devised to address self-interest. In other words, we expect cross associations between the attitudes and behaviors emanating from distinct theories. Although several effects can be outlined along these lines, we focus on four major possibilities that can receive theoretical underpinning.

We first examine the interplay between agency and justice. Managers who perceive a concern for justice in the organizational unit may also engage in agency-related actions that allow them to better deal with affective responses. Suppose, for instance, that a manager would like to provide team members with useful feedback regarding their individual performance. If managers, at the outset, establish reasonable goals and clear criteria to evaluate and compensate individual performance—behaviors that typically follow from agency theory—then it should become easier for these managers to judge whether team members met initial performance expectations or not, and whether their actions should be corrected or praised (through monetary rewards or otherwise). This argument is reminiscent of recent discussions in the literature regarding how explicit contracts can facilitate the development of relationships by creating procedures through which parties compare actual performance to initial expectations and mutually adjust if necessary (Mayer & Argyres, 2004). In addition, if managers closely monitor team members, the observability of their actions will increase (Brickley et al., 2002), thereby allowing managers to identify those who need to be publicly recognized, and those who deserve more careful attention and coaching. Thus:

Hypothesis 5. Managers who perceive affective responses as common will also emphasize in their unit actions that are consistent with solving agency problems.

In the same vein, we posit that agency-oriented managers are also likely to engage in justice-related behaviors. Our logic is that managers may anticipate that actions devised to curb self-interest will also create negative responses which may require extra managerial effort. Suppose, for instance, that an aggressive bonus scheme is introduced in the organizational unit. Given that individuals tend to have inflated perceptions of their own contribution to the organization (Zenger, 1992), managers should expect complaints by those whose compensation is significantly below others. To avoid negative downstream consequences (e.g. departure or sabotage), managers may invest considerable effort to justify decisions and “frame” the differential compensation scheme as a mechanism to reward those who excel instead of a procedure to punish particular members. Therefore:

Hypothesis 6. Managers who perceive agency problems as common will also emphasize in their unit actions that are consistent with creating a sense of interactional justice.

The second set of interactions we examine involves theories related to organizational politics and shared cognition. Because organizational politics may be related to the formation of interpersonal factions based on shared beliefs and identities (e.g. Ashforth & Mael, 1989), we submit that managers who view creating shared mental models as important should also stress dealing with organizational politics. Distinct factions in the organizational unit with diverging interests should also leave room for political-oriented behavior whereby subordinates try to influence managers towards their specific goals, even when they genuinely think that these goals are aligned with the interests of the organization as a whole. Thus, managers who are sensitive to shared cognition problems should also respond by adopting
behaviors consistent with dealing with politicking, such as listening to distinct factions, creating rules and procedures to approve certain projects, and so on. Our logic leads to:

**Hypothesis 7.** Managers who perceive misalignment in mental models as common also emphasize in their unit actions that are consistent with dealing with politicking.

Lastly, we expect that managers who perceive self-interested politicking to be prevalent are also more likely to adopt behaviors consistent with creating shared mental models. To deal with self-interested factions, managers can try to show that achieving high organizational performance will require concerted actions and interests; i.e., they can try to align the “preferences” of alternative factions by creating shared understanding of common organizational goals. For instance, recent work has shown how strategic planning has changed from a tool to devise long-term actions to a mechanism whereby distinct groups jointly discuss actions amalgamated by a common “vision. If clear goals are communicated and understood, then managers can economize on their efforts to handle politicking. Hence, we arrive at:

**Hypothesis 8.** Managers who perceive politics as common will also emphasize in their unit actions consistent with creating shared mental models.

### DATA AND METHODS

#### Sample and procedure

We test our proposed hypotheses using a sample of 419 executives who recently acquired their MBA degree or are currently enrolled in executive MBA programs offered by either one of two business schools, located respectively in Brazil and the United States. Because we are interested in managerial behaviors towards subordinates, we selected only executives who currently supervise the work of others (e.g. a sales manager, the head of the finance department etc.). The average manager in our sample is 35.4 years old, being that their ages range from 21 to 67 years. We have a roughly equal distribution across gender (59% were male) and nationality (59% were US respondents).

#### Measures

We developed an initial questionnaire based on the four theoretical categories described in our model. This initial questionnaire was originally developed in English, then translated and back translated into Portuguese. This translation was performed by three people who are intimately familiar with both languages, being that two are native speakers of Portuguese and one is a native speaker of English. We conducted an initial exploratory factor analysis with the resulting sample. We selected items loading highly on the first factor of each subscale for the final version of the questionnaire. Except where noted, all the following measures arise from 1-7 Likert-type scales.

**Organizational performance**

We gauge performance with a 3-item measure. For this measure, we asked managers to rate the degree to which the performance of their units over the last three years (a) met their initial expectations, (b) fared well against similar units in other organizations, and (c) satisfied their general performance expectations. This scale shows high reliability, as measured by its corresponding Chronbach’s α (α = 0.80).

While some have questioned the accuracy of self-ratings of performance (e.g. Anderson, Warner, & Spencer, 1984), suggesting that raters may inflate self-ratings, meta-analytic results have shown that this only tends to be the case in reward contexts (Mabe & West, 1982). These results, along with other empirical findings (e.g. Farh & Werbel, 1986), suggest that self-bias is apparent when rewards are at stake but not necessarily in research contexts. In addition, several studies have empirically demonstrated that when raters know their results will be checked against other raters, self-biases disappear (Bauman & Dent, 1982; Farh & Werbel, 1986; Mabe & West, 1982). For this reason, and also to guard against common method bias (e.g. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), we additionally...
asked respondents to provide us with the name and contact of two of their subordinates. We then checked a subsample of respondents’ answers against two other unit members in their organizations (in a total of 96 colleagues), who were interviewed by telephone after the initial data collection. Inter-rater agreement, as indexed by the average deviation (ADMd(J)) (Burke & Dunlap, 2002; Burke, Finkelstein, & Dusig, 1999), is well below the cutoff criteria of 1 suggested in Burke & Dunlap (2002), with ADMd(J) = .26, indicating strong inter-rater agreement. We are thus confident in the validity of our measures, for the purposes of our study.

**Managerial attitudes**

To measure agency-oriented attitudes (M= 4.22, SD = 1.08, α = 0.61) we gauge managers’ perceptions of the tendency for individuals to shirk in the absence of evaluation, monitoring and discipline (see the Appendix). When it comes to politically-oriented attitudes (M= 4.27, SD = 1.09, α = 0.66) we gauge managers’ perceptions of faction-formation and favoritism seeking. Shared cognition attitudes (M= 4.47, SD = 1.17, α = 0.71) are composed of perceptions of the importance of communication and information sharing in the unit. Finally, justice perceptions (M= 5.02, SD = 1.28, α = 0.74) involve perceiving the importance of justifying managerial decisions, giving employees the feeling of inclusion and voice within the organization.

**Managerial behavior**

We measure agency-oriented behaviors (M= 4.84, SD = 1.21, α = 0.79) refer to actions involving performance evaluation and incentives based rewards and punishments (see the Appendix). The original agency behavior scale also includes “monitoring”. We decided to drop this item because of its low loading on the general factor. Given the centrality of monitoring behaviors to agency theory, however (e.g. McLean Parks & Conlon, 1995), we decided to include two separate measures of agency behavior in our model. One measure includes a single items, assessment of the degree to which managers monitor employees. The other measure assesses the degree to which managers devise metrics, incentives, and evaluation mechanisms towards subordinates (for this latter scale, M= 3.83, SD = 1.57). Political behaviors (M= 4.16, SD = 1.34, α = .74) involve managing group differences and “diplomacy” between groups. Behaviors oriented towards creating shared mental models (M= 4.94, SD = 1.28, α = 0.87) measure attempts to establish common beliefs and procedures, and communicating general managerial goals. Justice behaviors (M= 5.01, SD = 1.29, α = 0.85) involve dealing with individual concerns, justifying organizational decisions, and establishing a climate of cordiality.

**Control variables**

Because the relationships between attitudes, behaviors, and performance is complex and can be affected by various task characteristics in the work environment outside of the individual differences (Hackman & Wageman, 1995), and because we had sampled from across a wide range of varying work contexts, we included several control variables to improve the validity of our results. We controlled for various aspects of the organizational environment that may affect managerial action by asking to what extent the managers’ organizational units exhibited (a) task complexity (i.e. multifaceted tasks that require a great deal of coordination), (b) mutual dependence among organizational members, (c) strong personal friendship bonds, and (d) active implementation of new technologies. Several of these aspects may confound hypothesized relationships in our model. For example, jobs requiring high levels of interdependence may require heightened effort towards creating shared mental models (Waller et al., 2004) regardless of managerial attitudes about such efforts. Also, jobs in which there is a high degree of complexity may invoke heightened
justice concerns and treatment with dignity as a heuristic processes when one is not sure about individual contributions or outcomes (van den Bos, 2001). We also include a control for the size of the company (number of employees); larger organizations may have deeper pockets than smaller ones regarding investing in necessary resources associated with high performance and may exhibit distinct patterns of interpersonal interaction (e.g., Zenger & Lazzarini, 2004). In addition, we include a measure of the “leniency” of managers towards their subordinates, which gauges the level of performance that they would expect to be appropriate given a certain hypothetical situation (see the Appendix). This variable helps to control for possible differences across managers in their self-assessment of performance. For instance, some managers may declare to be highly satisfied with the performance of their unit mostly because they held more lenient expectations at the outset. Finally, we include a variable coding the country of origin of the respondent so as to control for country-specific heterogeneity; this variable is coded 1 and 2 if the respondent is from the U.S. and Brazil respectively.

Estimation method

We perform a structural equation analysis, which, by definition, is a hybrid of factor and path analysis. To implement the model, we follow the two-stage approach recommended by Anderson and Gerbing (1988). In the first stage, we use confirmatory factor analysis to test whether the variables selected to measure each construct show convergent validity (i.e., whether items are fairly correlated with one another) and discriminant validity (i.e., whether variables across constructs clearly measure different constructs). Based on the measurement model found in this first stage, in the second stage we compute the path structural model.

RESULTS AND DISCUSSION

Overview of the data

Table 1 presents descriptive statistics and the correlation matrix involving the variables used in the study. It is worth noticing that, contrary to the current debate in the literature suggesting polar types of managers (e.g., those concerned and not concerned with opportunism), there is no negative association between managerial attitudes based on perceptions of self-interest and attitudes based on problems other than self-interest. Likewise, there is no negative association between managerial behaviors derived from perceptions of self-interest and behaviors unrelated to such perceptions. Rather, attitudes and behaviors were either independent or positively correlated. Thus, we interpret from our data that a manager who perceives agency problems to be common should not necessarily be less concerned with fairness and adequate treatment for team members. This suggests that managers who form strong attitudes about, and act accordingly with, the managerial paradigms laid forth above do not do so at the cost of ignoring other paradigms. In the structural model shown below, we test some key elements of such paradigmatic “cross-talk”.

Measurement model

Tables 2 reports results of our SEM analysis, based on our two-stage procedure. We follow Anderson and Gerbing’s (1988) formal analysis for convergent validity by computing t-tests for factor loadings. We keep indicators for which factor loadings are greater than twice their standard errors. All items included in our multi item measure surpass that level. We also assess discriminant validity. Here, we use chi-square difference tests for constrained and unconstrained models. The constrained model sets the covariance between two constructs equal to one; a significantly lower chi-square value for the unconstrained model supports the discriminant validity criterion. All multi-item constructs exhibit satisfactory discriminant validity.

In Table 2 we present summary statistics for all models estimated in both stages as well as difference statistics for all tests of one model against another. As far as our test of the
initial measurement model (model 1) is concerned, we look at chi-square and five other goodness-of-fit statistics: the goodness of fit index (GFI), the normed and the non-normed fit indices (NFI and NNFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). A commonly accepted rule of thumb is that the first 4 fit indices should be greater than 0.90 (Anderson & Gerbing, 1988). RMSEAs of 0.05 or less indicate good models. Probability levels on chi-square of 0.10 or higher are generally considered evidence of ideal models (Bentler, 1989). Because the chi-square statistic of model 1 is insignificant ($p < 0.11$), and because all goodness-of-fit indices are within the expected range, we conclude that this is a strong measurement model.

Structural model

We therefore proceed to compute the path model. Our theoretical model (model 2) has a significant chi-square, which could be cause for concern. In such cases, Anderson and Gerbing (1988) argue that the chi-square test is frequently not valid in applied settings, and recommend that this statistic be treated as a general goodness of fit index, but not as a statistical test in the strict sense. Many researchers use the informal criterion that the model may be acceptable if the chi-square value is less than twice the size of the degrees of freedom (Bentler, 1989). The fact that our model 2 chi-square of 251 is less than twice the degrees of freedom of 299 together with the fact that all other goodness of fit indices are within expected ranges (i.e. above 0.9, while RMSEA is below 0.05) indicates ours is a strong and acceptable theoretical model.

As a follow-up step, we examine modification indices resulting from Lagrangian multiplier tests (Bentler, 1989) to see if any unspecified paths could be added to improve model fit. Here, we find it necessary to add a path from F3 (“attitude towards shared mental models”) to F2 (“attitude towards politicking”), and another path from F8 (“emphasis towards creating shared mental models”) to F7 (“emphasis towards dealing with politicking”). Anderson & Gerbing (1988) recommend that the addition of paths should be done only to the extent that such additional paths are justified theoretically. As we discussed before, the multiple circumstances in which managers interact with their subordinates may several interactions between alternative attitudes and behaviors; thus, we believe that adding these additional paths is theoretically plausible. Lastly, we trim off insignificant parameters estimates to obtain a most constrained version of the theoretical model; based on the marginal significance cutoff of $p < 0.10$, and z-statistic of 1.645, we drop the paths between “country of origin” and “attitude towards agency”, “attitude towards politicking”, “emphasis towards solving agency problems (monitoring)”, “emphasis towards solving agency problems (evaluation and incentives)”, and “emphasis towards dealing with politicking”.

We also eliminate the control variables “size” and “leniency”, since they fail to provide significant results. On the other hand, we retain control variables “complexity”, “dependent”, “technology” and “strong personal bonds”, since these factors seem to affect performance. We also retain other paths involving these control variables which significantly affect performance, even if they do not represent significant effects when associated with other variables.

As a result of the above mentioned changes, we specify our “best model” (model 3), as shown Figure 2. The chi-square statistic for model 3 is significant ($\chi^2 = 246.22; p > 0.01$), but represents a significant improvement from our theoretical model, model 2 ($\Delta\chi^2 = -5.32; p < 0.001$). We are also confident in model 3, given that our analysis of the other 5 fit indices indicates this to be a good model. Particularly, the first 4 fit indices are all above 0.9, whereas RMSEA is a mere 0.02. We thus accept model 3 as our “best model.”

<< Figure 2 around here >>

Attitude and behavior hypotheses
Hypothesis 1a establishes a positive association between attitude towards agency problems and efforts towards solving agency problems. As the reader may remember (see the section “data and methods”), we split hypothesis 1a the behavioral measure of agency into two parts, based on whether the manager is emphasizing “monitoring” or “performance evaluation and incentives.” Both associations are supported, and thus we conclude that hypothesis 1a is supported. The coefficients are positive (0.21 and 0.11 respectively) and statistically significant (p < 0.001 and 0.021 respectively). Regarding hypothesis 2a (attitude towards politicking positively associates with emphasis towards dealing with politicking), hypothesis 3a (attitude towards shared mental models positively associates with emphasis towards creating shared mental models), as well as hypothesis 4a (attitude towards justice positively associates with emphasis towards dealing with justice), they are all supported. The coefficients are all positive and statistically significant (b = 0.16; 0.1; 0.19 respectively, while p < 0.001; 0.05; 0.0001 respectively).

Behavior and performance hypotheses

Although we find support our proposed associations between attitudes and their corresponding behaviors, we find only partial support for our proposed associations between behaviors and organizational performance. Specifically, hypothesis 1b is only partially supported. Particularly, the association between “emphasis towards solving agency problems (monitoring)” and “performance” is—contrary to expected—negative and statistically significant (b = -0.1; p < 0.072). On the other hand, as expected, the association between “emphasis towards solving agency problems (evaluation and incentives)” is positively associated with “performance” (b = 0.08; p < 0.1).

Hypothesis 2b (emphasis towards dealing with politicking positively associates with performance) is not supported. As it can be seen in the theoretical model, the coefficient is positive, but not significant (b = 0.01; p > 0.1). We therefore drop this path from the “best model”. Hypothesis 3b (emphasis towards creating shared mental models positively associates with performance) is not supported either. As it can be seen in the theoretical model, the coefficient is not significantly different from zero (b = 0.00; p > 0.1). We therefore drop this path from the “best model”. Hypothesis 4b (emphasis towards dealing with justice positively associates with performance), in turn, is supported. The coefficient is positive and statistically significant (b = 0.09; p < 0.084).

Associations between alternative attitudes and behaviors

We obtain support for hypothesis 5. This hypothesis predicts a positive association between attitude towards justice and emphasis towards solving agency problems (both measured as “monitoring” and as “evaluation and incentives”). The coefficients are positive and statistically significant (b = 0.14 and 0.13 respectively; p < 0.001 in both cases). On the other hand, we obtain no support for the remaining hypotheses predicting other cross associations between alternative attitudes and behaviors.

In addition to the support for some of the theorized hypotheses above, we report here two effects that were added to the model (see our discussion of Lagrangian analysis, in the methods section above). We find that variable “attitude towards shared mental models” has a positive association with “attitude towards politicking.” The path is positive and statistically significant (b = 0.22; p < 0.0001). We also find that variable “emphasis towards creating shared mental models” positively associates with “emphasis towards dealing with politicking.” The path is positive and statistically significant (b = 0.26; p < 0.0001).

DISCUSSION

Our data are inconsistent with the received simplified depiction of managers as either exclusively expressing concern about self-interest or emphasizing organizational problems not related to self-interest. Rather, we find that the same manager may engage in behaviors that are consistent with perceptions of both self-interest and other problems not strictly related
to self-interest. Possibly, the multiple ways in which managers interact with their subordinates leave room for distinct assessments of intentions depending on the particular context of the interaction (Lewicki et al., 1998).

Our data also indicate that alternative theories can equally explain organizational performance. For instance, a manager who believes that team members value interactional justice can increase performance by emphasizing a series of actions that promote justice; likewise, a manager who believes self-interest to be a problem can increase performance by emphasizing agency-oriented actions such as evaluation and incentives. It is worth noticing, however, that in our data monitoring shows a negative effect on performance. This result is consistent with discussions dating back to Strickland (1958), suggesting that direct supervision may backfire due to its potentially strong message of lack of trust in the workplace. Although we could not find significant performance effect for actions that emphasize dealing with politicking and creating shared mental models, our data indicate that managers have multiple ways to increase organizational performance based on distinct theoretical perspectives.

Furthermore, the data also reveal an interesting positive association between attitudes based on justice and behaviors emphasizing agency (specifically, performance evaluation and incentives). This result is consistent with our point that performance metrics and incentives can function as complementary mechanisms to foster justice. Namely, managers can use pre-specified objective goals to set clear expectations at the outset, and then use incentives to “reciprocate” those who met or exceeded expectations. It is also interesting to see that there is an asymmetry in the data: managers who perceive agency problems to be common do not emphasize actions to promote justice (except, of course, if they also perceive justice to be important). Also, we do not find support for predicted interactions between other alternative theories (shared cognition and politics).

Overall, our study indicates stronger attitude-behavior-performance effects, as well as interactions, involving theories of agency and interactional justice; the other theories (politics and shared cognition) fail to receive broader support in our data (except for their predicted direct attitude-behavior paths). The added significant paths involving politics and shared cognition attitudes and behaviors (model 3), however, reveal some interplay between attitudes and behaviors involving those two theoretical perspectives: managers who tend to perceive political problems as relevant also tend to be concerned with shared cognition; and managers who emphasize dealing with politicking also emphasize creating shared mental models.

**CONCLUDING REMARKS**

Because managerial behaviors are expected to follow managers’ psychological evaluation about the intent of team members, scholars have devoted increasing attention to various theories of how managers behave and how their actions impact organizational performance. Thus far, the literature has drifted towards a polarized view of managers as either individuals concerned with mitigating self-interest or individuals who actively motivate and engage team members in the pursuit of common organizational goals. Differently from this view, we find that managers exhibit complex attitudes and behaviors that do not reflect a single implicit theory of human behavior in the workplace. Respondents in our sample of U.S. and Brazilian managers appear to hold attitudes that are consistent with both opportunistic and non-opportunistic views of their subordinates. They also appear to adopt behaviors that blend recommendations consistent with multiple theories; for instance, we find that managers who are concerned with justice not only emphasize practices to foster justice, but also practices that directly follow from agency theory (e.g. evaluation and incentives).

Our study therefore indicates that management theories based on distinct patterns of attitudes and behaviors can complement one another. Thus, by carefully outlining the predictions of distinct theories and exploring their possible interactions, our study provides a
broader and more complete picture of the relationship between managerial attitudes, managerial behavior and organizational performance. Furthermore, our study is able to explain heterogeneity in organizational performance—a focal issue in strategic management research (Barney, 2002)—building upon mechanisms that derive from heterogeneity in terms of attitudes and behaviors adopted by managers in their organizational units. Thus, we provide psychological underpinning to the study of how managers can create competitive advantage through internal organizational choices.

REFERENCES


15 theories based on self-interest

- Attitude towards agency problems
  - Emphasis towards solving agency problems (monitoring, performance evaluation, incentives)
  - Emphasis towards dealing with politicking

- Attitude towards political behavior
  - Emphasis towards solving agency problems

- Attitude towards mental models
  - Emphasis towards creating shared mental models
  - Emphasis towards dealing with justice

- Attitude towards justice
  - Emphasis towards dealing with justice

theories not based on self-interest

- Country of origin (Ctr1)

Figure 1. Theoretical model

16 theories based on self-interest

- Attitude towards agency problems
  - Emphasis towards solving agency problems (monitoring)

- Attitude towards political behavior
  - Emphasis towards solving agency problems (performance evaluation and incentives)

- Attitude towards mental models
  - Emphasis towards creating shared mental models

- Attitude towards justice
  - Emphasis towards dealing with justice

theories not based on self-interest

- Country of origin (Ctr1)

Figure 2. Best model
### Table 1. Descriptive statistics

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<th>6</th>
<th>7</th>
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<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
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<td>0.23**</td>
<td>0.15**</td>
<td>-0.09†</td>
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</table>

Note: ** p < 0.01  * p < 0.05  † p < 0.1. We do not report the mean and SD of variable “leniency” because it is based on two distinct scales with different measurement units.

### Table 2. Goodness of fit indices for the structural equation model

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<tr>
<th>Model Name</th>
<th>Chi-Sq</th>
<th>Df</th>
<th>Probability</th>
<th>GFI</th>
<th>NFI</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMSEA</th>
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<td>0.94</td>
<td>0.96</td>
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<td>298</td>
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<td>0.90</td>
<td>0.91</td>
<td>0.93</td>
<td>0.930</td>
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<td>0.94</td>
<td>0.95</td>
<td>0.975</td>
<td>0.02</td>
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