

Managers' theories of subordinates: A cross-cultural examination of manager perceptions of motivation and appraisal of performance[☆]

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Abstract

The present study sought to examine the relationship between managers' perceptions of employee motivation and performance appraisal by surveying managers and employees in three distinct cultural regions (North America, Asia, and Latin America) within a single global organization. Three distinct cultural patterns emerged in the theories managers' held about their subordinates. While North American managers perceived their employees as being more extrinsically than intrinsically motivated, perceptions of intrinsic motivation proved to be a more robust predictor of performance appraisal. Asian managers exhibited a holistic tendency in that they perceived their subordinates as equally motivated by intrinsic and extrinsic factors, and their perceptions of both motivations proved to be comparable predictors of performance appraisal. Latin American managers perceived their employees as being more intrinsically than extrinsically motivated, and accordingly, only their perceptions of intrinsic motivation proved to be significantly correlated with performance appraisal. In contrast to the cultural variations exhibited in manager perceptions, employees consistently reported themselves as being more motivated by intrinsic than extrinsic incentives. Explanations for the distinct cultural patterns that emerged and their implications for the study of culture and organizational behavior are discussed.

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Behind every managerial decision or action are assumptions about human nature and human behavior.

Douglas McGregor (1960, p. 33)

In *The Human Side of Enterprise*, McGregor (1960) emphasized the importance of examining the underlying assumptions that managers' hold about their subordi-

nates. McGregor used these assumptions to broadly divide managers into two camps: Theory X and Theory Y managers. McGregor deemed the vast majority of managers as ascribing to Theory X—that is they believed that their employees disliked work, wished to avoid responsibility, and desired security above all. As such, rather than trusting workers to self-motivate, Theory X managers felt compelled to adopt coercive, controlling, and sometimes even threatening methods when attempting to motivate their employees (Heil, Bennis, & Stephens, 2000). In contrast, McGregor lamented the paucity of Theory Y managers, who assumed that their employees liked work, sought to develop their skills, and furthered worthy organizational goals. Rather than resorting to authoritarian methods, such managers adopted an integrative strategy in creating conditions where their employees could achieve their own goals by directing their efforts towards organizational objectives (McGregor, 1960; Schein, 1975). One assumption underlying Theory X and Theory Y was that the primary source of motivation must

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lie intrinsic (e.g., the need for self-actualization) or extrinsic (e.g., monetary incentives and managerial surveillance) to the employee.

In line with these inferences, Heath (1999) showed in a series of laboratory experiments that people exhibited a pronounced tendency to predict that others are more motivated than themselves by extrinsic rewards (e.g., pay and benefits) and less motivated than themselves by intrinsic rewards (e.g., enjoyment and interest in job). For example, Heath reported survey data that 73% of the respondents believed that “large differences in pay” were necessary “in order to get people to work hard” and 67% agreed “people would not want to take extra responsibility at work unless they were paid extra for it”. However, when asked to rank different aspects of their jobs, respondents ranked pay only third in importance, while “important work” ranked first for 50% of those sampled. Moreover, in a laboratory experiment, Heath demonstrated that participants ranked extrinsic items as most important only 22% of the time; whereas, they predicted that others would do so significantly more often (i.e., 32% of participants predicted classmates would report extrinsic as the most important, 54% for bank managers, and 85% for bank employees). Drawing upon this data, Heath asserted “In their lay theories, members of the general population assess others’ motives using Theory X, while they assess their own motives using Theory Y” (p. 28).

Within the McGregorian tradition of identifying the assumptions that underlie manager theories of subordinates, the present study expands upon the research of Heath (1999) by examining managers’ perceptions of whether their employees are primarily motivated by intrinsic or extrinsic incentives. Given that prior research has thus far been confined to North American organizational settings, this investigation aims to compare managers’ perceptions of motivation across three geographic regions—North America, Asia, and Latin America—so that we may assess potential cultural variation in these theories. This investigation further explored managers’ theories of subordinates by examining the role of managers’ perceptions of employee motivation in their appraisal of employee performance.

Perceptions of motivation

One might expect managers to be predisposed towards perceiving their employees as more intrinsically than extrinsically motivated. After all, decades of research on the fundamental attribution error and the actor–observer effect have consistently demonstrated that when individuals (particularly North Americans)

explain the behaviors of others, they are prone to making dispositional attributions (e.g., Jones & Harris, 1967; Ross, 1977). Yet, research indicates that the salience of the explicit deal between organizations and employees—namely, “the norm of pay”—leads observers to emphasize extrinsic more so than intrinsic incentives in their perceptions of others’ motivations within the workplace setting (Heath, 1999; Staw, Calder, Hess, & Sandelands, 1980).

Indeed, a growing number of studies suggest that within the work context North Americans are less cognizant of their co-workers’ socio-emotional expressions (Sanchez-Burks, 2002). In particular, a cross-national survey of a global organization conducted by Morris, Podolny, and Ariel (2000) reinforces the notion that North American societal norms tend to preclude the consideration of socio-emotional dimensions in the workplace. The results of their analysis suggest that North Americans bring a “market orientation” to their interpersonal relations, that is their relationships are valued more for their utility than their socio-emotional components. More generally, Miller (1999) has argued that Western individualism cultivates a pervasive belief in the “norm of self-interest,” which gives greater prominence to the role of external motivational factors in the behavior of others. The implication of these Western norms is that when economic self-interest is present, observers are led to emphasize the role of extrinsic incentives in their theories of motivation, even in contexts where actors perceive themselves to be intrinsically motivated. Even though recent research has cross-culturally documented that people consistently report money as the least salient and least satisfying of their own needs (Sheldon, Elliot, Kim, & Kasser, 2001), the research reviewed here indicates that, at least among North Americans, extrinsic incentives are more prominent in peoples’ perceptions of others’ motivations than intrinsic incentives. Consequently, we hypothesize that North American managers will perceive their employees as being more extrinsically than intrinsically motivated in contrast to their employees who perceive themselves as being more intrinsically than extrinsically motivated.

However, in cultural contexts where the self-interest norm is less salient and the market orientation is less pervasive, there is reason to expect that managers will be more attentive to the intrinsic factors potentially motivating their employees. Particularly, in Asian and Latin American cultures, where collectivism dominates social norms and values, the salience of workers’ internal emotional states as they apply to collegial relationships may be more pronounced. Consistent with this prediction is Morris et al.’s (2000) finding that, unlike North American workers who exhibited a market orientation, Spanish workers displayed an affiliative orientation (high emotional involvement with co-workers) while

Chinese workers ascribed to a familial orientation (sacrifice for the group). Such findings challenge the crude dichotomy of individualism–collectivism in prior theory by pressing cultural researchers to make more fine-grained distinctions of the qualitatively different forms of collectivism (Oyserman, Coon, & Kimmelmeier, 2002).

Specifically, a growing body of research by Nisbett and colleagues has argued that, unlike their Western counterparts, Asians are more likely to perceive the world holistically (Choi & Nisbett, 1998; Masuda & Nisbett, 2001; Miller, 1984; Nisbett, Peng, Choi, & Norenzayan, 2001). According to this cultural analysis, the Western philosophies—with their origins in Greek Aristotelian thought—are highly influenced by the analytic tradition; whereas, contemporary Asian mentalities and thought processes—with their origins in Chinese cultural traditions such as Buddhism, Confucianism, and Taoism—are cognitively integral and holistic. Consistent with this theory, studies have empirically demonstrated that Asians are more likely to draw on both internal and external causes when explaining the behaviors of others. For example, studies by Norenzayan, Choi, and Nisbett (2001) show that, like North Americans, Koreans are likely to endorse a dispositionist theory of behavior; yet, at the same time, unlike North Americans, Koreans are equally likely to endorse a situationist theory of behavior (also see Miller, 1984; Morris & Peng, 1994). Thus, we hypothesize that both Asian managers and their employees will perceive motivation as being equally derived from intrinsic and extrinsic factors.

Although there is a comparative paucity of studies conducted with Latin American participants, some recent evidence suggests that Latin American managers' assumptions regarding their employees' motivation may differ not only from individualist managers in North America, but also from their collectivist counterparts in Asia. In particular, Latin Americans differ substantially from Asians in their emphasis on effusive displays of personal charm, graciousness, and hospitality (Diaz-Guerrero, 1976; Lindsley & Braithwaite, 1996; Sanchez-Burks, Nisbett, & Ybarra, 2000). In fact, the most distinctive norm of the Latin American workplace is *simpatía*, a tradition that compels workers to exhibit personal expressions of their internal emotive states (Sanchez-Burks et al., 2000; Triandis, Marin, Lisansky, & Betancourt, 1984). The tendency for Latin American observers in the workplace to attend to these internal socio-emotional expressions of others suggest that Latin American managers are more sensitized to the intrinsic motivations of their employees. Thus, we suspect that Latin American managers might exhibit a distinct set of assumptions regarding their employees' motivations. Unlike North Americans and Asians, Latin American managers may be more attuned to the perceptions of

their employees; consequently, both groups perceive motivation as being more intrinsically than extrinsically derived.

Performance appraisals

How do managers' perceptions of what motivates their subordinates influence their evaluations of employee performance? To date, researchers have focused primarily on the appraisal process (see Ilgen, Barnes-Farrell, & McKellin, 1993 for a review), and on developing an understanding of how raters form judgments about subordinates (see Arvey & Murphy, 1998 for a review). A laboratory experiment conducted by Pelletier and Vallerand (1996) on North American participants indicates that, even when actual performance of subordinates did not differ, superiors evaluated performance more positively when they were led to believe that their subordinate was motivated to perform the task for intrinsic (i.e., the subordinate "enjoyed working on that type of task") as compared to extrinsic (i.e., the subordinate "was participating in the experiment because \$10 was given to all subjects") reasons. It appears that appraisal of performance is influenced not just by the objective performance demonstrated by the employee, but also by what supervisors perceive the motivations of the employee to be.

Surprisingly, the role played by managers' perceptions of motivation has received scant attention. This domain of judgments is particularly significant within the organizational context, given that the managers' appraisal of performances has a central role in how organizations determine rewards (e.g., promotions and bonuses). Drawing on Pelletier and Vallerand (1996), one prediction is that at least North American managers will weigh their perceptions of employees' intrinsic motivation more heavily than their perceptions of employees' extrinsic motivation. However, as our above review of recent findings in cultural psychology suggests, different patterns may emerge within collectivist cultures. Specifically, the Asian tendency to cognitively process the social world in a more holistic manner may lead managers to weigh their perceptions of extrinsic motivation as much as their perceptions of intrinsic motivation while the effusive social displays of Latin Americans may lead sensitized managers to weigh their perceptions of intrinsic motivation more than their perceptions of extrinsic motivation.

In sum, the present study examines cross-culturally both managers' perceptions of whether their employees are primarily motivated by intrinsic or extrinsic incentives and the role these perceptions play in the appraisal of employee performance.

Method

Overview

We sought to examine managers' theories of subordinates within a global organization in which valid cross-cultural comparisons could be made. To test our hypotheses, we surveyed managers and employees from the same multi-national organization in six different countries representing the cultural regions of North America, Asia, and Latin America. Employee intrinsic and extrinsic motivations were rated both by the employees and their managers, and performance appraisals were obtained from both the supervising manager and Human Resources (HR) for each participating employee.

Organizational setting

The choice of Citigroup as our organizational context afforded us several methodological benefits. The bank's organizational structure was standardized across countries, so there was little international variation in the formal organization chart, job categories, employee incentive programs, financial services provided, and the physical layout of the bank branches. This policy of maximizing cross-country variation in the human composition of the organization while minimizing cross-country variation in the formal structure and practical content of work created "a natural experiment" (Morris et al., 2000, p. 97) for investigating the effects of cultural norms on workplace behavior. Citigroup provided a conservative test for the cross-cultural variation in managers' theories of subordinates since it is a North American organization and the common organizational culture would tend to, if anything, dilute cultural differences (see Morris et al., 2000). The implications of the relationship between supervisors' perceptions and their evaluations of employee performance was especially significant in the context of Citigroup where, in the absence of any significant quantifiable measures of employee performance, supervisors' perceptions constituted a major aspect of employee performance evaluations. Indeed, supervisory ratings remained among the most common ways of evaluating individual job performance (e.g., Austin & Villanova, 1992; Borman, 1991; Ployhart, Wiechmann, Schmitt, Sacco, & Rogg, 2003; Pulakos, 1997).

Participants

To examine differences in managers' perceptions of motivation across supervisors and subordinates, 185 consumer branch managers and 1760 consumer branch employees participated in this cross-cultural

study conducted in Citigroup consumer branches in six countries. The sample of managers included 12 from Argentina, 16 from Brazil, 21 from Mexico, 6 from the Philippines, 4 from Taiwan, and 127 from the United States (New York = 69, Chicago = 39, and Los Angeles = 19). Initially, 214 managers were recruited and ultimately 185 chose to participate, resulting in an 86% response rate. To ensure that managers felt comfortable sharing confidential information regarding their employees, no identifying information concerning the managers, including basic demographic information, was obtained. Unfortunately, this resulted in our inability to explore potential within cultural differences in managers' theories of subordinates.

Within the participating branches, we had a 95% response rate. Of the 1760 participating employees, 138 were from Argentina, 219 from Brazil, 129 from Mexico, 80 from the Philippines, 171 from Taiwan, and 1,023 from the United States. Although participants from the foreign countries were racially homogeneous, the American sample of employees was ethnically diverse in that it included 15.9% African-Americans, 11.6% Asian-Americans, 41.8% Caucasians, 17.5% Hispanic-Americans, and 13.2% other. In terms of position (job function), we chose to limit our sample to bank tellers (38.4%) and sales force representatives (42.6%) both because there were sufficiently large numbers of employees assigned to these positions in all the countries sampled and the tasks associated with these positions do not vary by location. There was considerable variation in the amount of time these employees had worked at Citibank in that 15.2% had worked for less than 1 year, 48.0% for 1–6 years, 19.7% for 7–12 years, 10.7% for 13–21 years, and 3.9% for over 22 years. Similarly, the age distribution also varied, consisting of 42.6% less than 29 years of age, 35.2% between the ages of 30–39, 13.4% between the ages of 40–49, and 7.4% over 50. Finally, 64.1% of the employee participants were female.

Instruments

Perceptions of motivation

Participating managers rated each of their employees on the extent to which they perceived the employee to be intrinsically and extrinsically motivated. Specifically, to assess how managers perceive employees to be intrinsically motivated, they were asked the question, "How motivated do you think this employee is to do his/her job for internal reasons (finding job enjoyable and interesting)?" Similarly, to assess extrinsic motivation they were asked the question "How motivated do you think this employee is to do his/her job for external reasons (pay/medical benefits)?" Managers provided their responses to both questions on a 1 (*not at all motivated*) to

9 (*extremely motivated*) Likert scale.¹ To compare managers' perceptions to those of their subordinates, participating employees were given parallel statements concerning their perceptions of their own intrinsic and extrinsic motivation.

Performance evaluation

Two measures of performance appraisal were obtained. To gather performance appraisals that were current and uniform across the various countries and consumer branches, a measure of performance was obtained from managers who provided assessments of intrinsic and extrinsic motivation. Specifically, branch managers rated each employee on a 1 (*very poor*) to 9 (*excellent*) Likert scale, "Overall, how would you rate this employee's performance?" Since managers rated intrinsic and extrinsic motivation at the same time as they rated performance, this methodology allowed for a direct test of the relationship between managers' perceptions of intrinsic/extrinsic motivation and appraisal of performance.

The second measure was obtained from regional HR directors, who released organizational records indicating the performance ranking each participating employee had received at some time during the past year. HR performance ratings were designed to distinguish among employees, and were specifically used for decisions concerning hiring and firing, promotions, and the distribution of bonuses. Our use of HR rankings as a performance measure thus allowed us to examine whether managers' perceptions of employee motivation were consequential to employees' status and future at the organization.

Performance rating scales were not uniform throughout the organization—they often varied as a function of

geographical location. In some consumer branches, employees were rated on a 1–3 scale (1 = below par, 2 = par, 3 = above par), while in other consumer branches, ratings were provided on a 1–4 scale (1 = under-performer, 2 = good, 3 = very good, 4 = excellent), or on a 1–5 scale (1 = needs improvement, 2 = low full standard, 3 = high full standard, 4 = very good, 5 = outstanding). Moreover, these coding scales were often reversed. After obtaining these performance records, scales running in the opposite direction were reverse scored, and all scores were normalized using a *z* transformation procedure. While the managers' subjective appraisals of performance facilitated the most direct test of our hypotheses, the acquisition of the HR performance ratings allowed us to avoid a common method variance bias and test our hypotheses on a measure that was high in external validity. Consistent with the level of association observed between administrative-based ratings and those used for research purposes, the overall correlation between branch manager performance evaluation and HR performance ratings was, $r = .49, p < .01$ (Harris, Smith, & Champagn, 1995).

Demographics questionnaire

Employees' demographics were obtained both through their managers and through demographics questionnaires that they completed. Both managers and employees were asked to indicate the formal position each participating employee held at the bank and both were also asked to indicate the last five digits of the employee's Citibank ID number. These ID numbers were subsequently used for matching manager and employee responses as well as performance data obtained through human resources. Employees were also asked to provide demographic information concerning ethnicity, gender, age, and tenure.

Procedure

Data collection

Researchers personally distributed and retrieved questionnaires from each participating branch employee. While distributing the surveys, researchers assured participants, "at no point will your manager see your responses." To further maintain the confidentiality of all employee identities, the only identifying information requested within the survey was the last five digits of the employee's Citibank personal identification number. We obtained this number in order to cross-reference each questionnaire with the individual performance data provided by the branch managers and HR directors. This procedure also ensured that no employee names would be associated with any survey or performance information. All participants received chocolates/candies as tokens of appreciation for participating. At the conclusion of the data collection, summary results from this study were shared with all regional directors.

¹ Of course, one-item measures could be associated with psychometric difficulties. In order to increase our confidence that the content of the one-item measures employed in the current study were interpreted similarly across a wide variety of countries, we examined a set of eight items (four intrinsic and four extrinsic) drawn from Heath (1999) that were collected from Citibank employees in the countries we sampled (with additional responses from employees in Australia and Singapore). Using the statistical package AMOS (Arbuckle, 1999), we conducted a confirmatory factor analysis, with the four intrinsic items loading onto an internal latent factor and the four extrinsic items loading onto an external latent factor. Results revealed support for a two-factor model; goodness-of-fit index was .97, adjusted goodness-of-fit index was .93, and Tucker Lewis Index was .96 (see Kline, 1998, for a discussion of fit indicators and desirable values). The two-factor solution, $\chi^2(19, N = 1287) = 184.87, p < .001$, showed a better fit than did a one-factor solution, $\chi^2(20, N = 1287) = 213.97, p < .001$. The difference in χ^2 of 29.1 represented a reduction of 14%, which far exceeded the criterion value of 7.9 associated with 1 degree of freedom at an α of .005. Thus, moving from a two- to a one-factor model produced a significant reduction in fit for the added degree of freedom to the model. Alpha's showed both the intrinsic motivation items ($\alpha = .90$) and the extrinsic motivation items ($\alpha = .82$) to have more than acceptable reliability. Specific to our concerns, the regression weight estimates of each of the items that corresponded to the content of the one-item measures loaded strongly onto their respective latent factors.

Table 1
Correlations between demographic variables and hypothesized variables

Subscale	1	2	3	4	5	6	7	8	9	10
1. Manager intrinsic rating	–	.25**	.21**	.12**	–.10**	–.06*	–.06*	.26**	.61**	.31**
2. Manager extrinsic rating		–	.04	.10**	.04	.01	.003	.13**	.28**	.16**
3. Employee intrinsic rating			–	.45**	.10**	–.02	–.02	.10**	.14**	.11**
4. Employee extrinsic rating				–	.02	–.05 ⁺	–.04	–.02	.13**	.09**
5. Age					–	.57**	.08**	.08**	–.03	–.03
6. Tenure at organization						–	.17	.11**	.08**	.04
7. Gender							–	–.12	.00	.03
8. Position								–	.11**	.09**
9. Manager Performance									–	.49**
10. HR Performance										–

Note. This table presents raw correlations.

* $p < .05$.

** $p < .01$.

⁺ $p < .1$.

Translation procedures

A formal, cross-translation procedure was employed to ensure maximum commonality among survey questions written in different languages. Using a method similar to that employed by Brislin, Lonner, and Thorndike (1973), survey questions were first written in English and then translated into Mandarin, Spanish, and Portuguese by hired translators. To further maximize conceptual uniformity across various survey versions, translated surveys were back translated into English to check for similarity. The foreign-language versions were subsequently improved if any slight discrepancies surfaced in order to create maximum equivalence across the various versions.

Focus group

Before distributing questionnaires directly to branch participants, we conducted a focus group in each country led by a native speaker in the prevalent language with the express purpose of inquiring about the integrity of the translations (e.g., were the questions meaningful and was the integrity of the questions' original meanings maintained). Seven to twelve consumer branch employees participated in each focus group, representing a subset of employees from sales and operations with one to three employees from each of the positions present in a typical branch; employees from two to three different branches were recruited in order to increase variability in their feedback. Moreover, by having the focus group leader engage in a 2-h long discussion with the focus group members on current incentive programs at Citigroup, we were able to verify that incentive programs at Citigroup were similar across the geographic regions included in our sample.

Results

Preliminary analysis

Before turning to our central questions, we first examined whether any of our hypothesized variables var-

ied as a function of participant demographics. We also examined the legitimacy of our cultural groupings. Both manager and employee perceptions of motivation varied as a function of employee gender, age, position held at the bank (i.e., bank teller or sales representative), and tenure in the organization. All demographic variables were significantly correlated with one or more of our six hypothesized variables—four of which included managerial and employee ratings of intrinsic and extrinsic motivation and two of which included employee performance evaluations (i.e., manager and human resource ratings of performance). While the relationship between employee demographics and managerial and employee ratings of intrinsic and extrinsic motivation was not the focus of our analyses, all of our analyses described below included these demographic terms, and the results reported are those which occurred controlling for demographic differences. See Table 1 for a depiction of correlations between demographic terms and hypothesized variables.

To avoid regional overgeneralization (Oyserman et al., 2002)² we sampled multiple countries from both Asia and Latin America. Our final cultural groupings—North Americans, Asians, and Latin Americans—were based both on the geographic location of the countries sampled and on the observation that similar patterns of results emerged within each geographic region—legitimizing the collapsing of data

² Generalizing from patterns within three culturally distinct regions is likely to overemphasize the level of uniformity that actually exists within any specific region. Although we openly concede that sampling alternative countries within the three broad cultural regions we have specified could very well yield distinct or conflicting patterns, we believe that by sampling multiple countries in Asia and Latin America we have taken an important step towards making more valid generalizations about the regions we surveyed. Indeed, collapsing data collected in six different countries into three different cultural categories creates a conservative threshold for the observation of cultural differences.

Table 2
Manager ratings and employee self-reports of intrinsic and extrinsic motivation by country

Country	Manager			Employee			
	Intrinsic	Extrinsic	η^2	Intrinsic	Extrinsic	η^2	η^2
United States	6.36 (1.76) _a	6.98 (1.44) _b	.10	6.57 (1.96) _a	5.44 (1.69) _b		.26
Asians							
Taiwanese	7.33 (1.26) _a	7.48 (1.44) _a	.01	5.98 (1.60) _a	5.15 (1.67) _b		.20
Filipino	6.85 (1.33) _a	6.63 (1.52) _a	.02	5.72 (1.77) _a	4.25 (1.74) _b		.41
Latin Americans							
Mexican	6.60 (1.80) _a	4.18 (2.17) _b	.51	7.03 (1.85) _a	5.17 (1.49) _b		.51
Brazilian	7.05 (1.31) _a	6.73 (1.23) _b	.03	7.26 (1.68) _a	5.74 (1.54) _b		.41
Argentinean	7.34 (1.14) _a	6.56 (1.42) _b	.24	6.85 (1.53) _a	6.06 (1.36) _b		.21

Note. This table presents raw means and effect size statistics with standard deviations reported in the parentheses. Means that do not share subscripts across country within manager or employee columns are significantly different at $p < .05$ level as determined by a paired-sample t test.

Table 3
Correlations between manager perceptions of employee motivation and performance appraisal

Ethnicity	Manager rating		HR rating	
	Intrinsic	Extrinsic	Intrinsic	Extrinsic
United States	.64 _a	.39 _b	.36 _a	.15 _b
Asians				
Taiwanese	.46 _a	.52 _a	.17 _a	.21 _a
Filipino	.59 _a	.64 _a	.52 _a	.54 _a
Latin Americans				
Mexican	.68 _a	.17 _b	.47 _a	.30 _b
Brazilian	.54 _a	.13 _b	.29 _a	-.07 _b
Argentinean	.63 _a	.35 _b	.29 _a	.14 _b

Note. Numbers are the raw correlations between manager ratings of employee motivation and performance appraisal. Correlations that do not share subscripts across ethnicity/country within manager rating or HR rating columns represent a statistical difference at the $p < .05$ level as determined by a test devised by Williams (1959) and endorsed by Steiger (1980) for the difference between two nonindependent correlations.

across Taiwan and the Philippines³ to form the Asian group, and across Argentina, Brazil, and Mexico to form the Latin American group. As can be seen in

³ Anthropologists have hotly debated the predominant source of influence over the identity of Filipinos. Some have argued that the Spanish rule left an indelible imprint on Filipino culture—particularly in terms of their religious ideology and moral values (Joaquin, 1964; Rimonte, 1997). Others have argued that the more recent American colonialism dominates Filipino cultural norms and practices, particularly as it concerns their free market economy (Mendoza, 2002). Still others state that despite the four centuries of foreign invasion and influence, the indigenous culture of the Filipino people is still intact (Cannell, 1999; Iletto, 1979; Rafael, 1988; Reid, 1993). President Macapagal of the Philippines asserted in 1962 that, “The uniqueness of our historical experience. . . arises from the fact that the Filipino people have been able to conserve the basic oriental cast of their personality despite prolonged exposure to the powerful cultural influences of the West. The accretions, additions and embellishments from without have not altered the innate qualities of heart and soul nor the fundamental mould of temperament and character that make the Filipinos an indubitably Asian nation.” Given that the central interest of this investigation is to examine the relationship between cultural members’ perceptions of motivation with performance appraisal and not simple mean comparisons across cultures, our analyses revealed that, at least in this investigation, Filipinos proved more similar to their geographic neighbors in Taiwan than with their fellow colonies in Latin America.

Tables 2 and 3, a country-by-country comparison revealed similar patterns of mean differences in managers’ ratings of intrinsic and extrinsic motivation, as well as similar correlational relationships between managers’ perceptions and performance appraisal among the two ethnic groups comprising the Asian sample, and the three ethnic groups comprising the Latin American sample.

Our hypotheses concentrate on cultural variations in the relationships between our hypothesized variables and not on mean differences between cultural groups within the variables themselves. Comparing the patterns within each cultural region avoided the confounding role of context in mean comparisons (Heine, Lehman, Peng, & Greenholtz, 2002). Our questions focused on whether or not managers within a cultural region gave greater emphasis—in perceptions of motivation or appraisal of performance—to extrinsic factors *relative* to intrinsic ones.

Perceptions of motivation

According to our hypotheses, we predicted cultural variations in managers’ perceptions of employee intrinsic

and extrinsic motivation. To test these hypotheses, we conducted repeated measure ANOVAs on ratings of intrinsic and extrinsic motivation by culture separately for managers and employees. In a 3 (culture: North American, Asian, and Latin American) \times 2 (motivation: manager intrinsic and extrinsic rating) ANOVA with repeated measures on the second factor, findings revealed no significant main effect for motivation, $F(1, 1328) = 1.99$, *ns*, partial $\eta^2 = .001$, but a significant main effect for culture, $F(2, 1328) = 4.75$, $p < .001$, partial $\eta^2 = .02$, and a significant interaction between the managers' cultural group and their ratings of intrinsic and extrinsic motivation, $F(2, 1328) = 30.02$, $p < .01$, partial $\eta^2 = .04$. Additionally, to test whether there were cultural differences in employee ratings of intrinsic and extrinsic motivation, we conducted a 3 (culture: North American, Asian, and Latin American) \times 2 (motivation: employee intrinsic and extrinsic ratings) ANOVA with repeated measures on the second factor. Results indicated a significant main effect for motivation, $F(1, 1590) = 25.54$, $p < .01$, partial $\eta^2 = .02$ in which the average rating for employee intrinsic motivation ($M = 6.63$, $SD = 1.88$) was significantly greater than the average rating for employee extrinsic motivation ($M = 5.43$, $SD = 1.67$). Results also showed a main effect for culture, $F(2, 1590) = 36.76$, $p < .01$, partial $\eta^2 = .04$ and a significant interaction between the two, $F(2, 1590) = 5.72$, $p < .01$, partial $\eta^2 = .01$. Thus, these significant interactions between ratings of intrinsic and extrinsic motivation with culture, across both managers and employees call for further analyses within culture. Since managers rated anywhere from 2 to 77 employees, we controlled for this variation by including a variable denoting the manager associated with a given set of observations as a between-subject factor in all repeated measure ANOVAs on managers' ratings of intrinsic and extrinsic motivation. Note that employee age, tenure in the organization, gender, and position were included in both of these repeated measure ANOVAs, as well as in the repeated measure ANOVAs reported below.

We predicted that among North Americans divergent patterns of intrinsic and extrinsic ratings would be observed across managers and employees. A repeated measures ANOVA on manager ratings of intrinsic and extrinsic motivation among North Americans revealed a significant main effect, $F(1, 690) = 10.68$, $p < .01$, partial $\eta^2 = .02$, in which North American managers rated their employees as being significantly higher in extrinsic motivation ($M = 6.97$, $SD = 1.46$) than intrinsic motivation ($M = 6.30$, $SD = 1.77$). Conversely, a repeated measure ANOVA on North American employee ratings of intrinsic and extrinsic motivation revealed a significant main effect for motivation, $F(1, 894) = 12.56$, $p < .01$, partial $\eta^2 = .01$, indicating that employees reported themselves as being significantly higher on in-

trinsic motivation ($M = 6.59$, $SD = 1.96$) than extrinsic motivation ($M = 5.47$, $SD = 1.69$).

As predicted, Asians displayed a more holistic perception of human motivation—that is they were less likely to perceive differences in intrinsic and extrinsic motivation. In a repeated measure ANOVA on manager ratings of intrinsic and extrinsic motivation among Asian managers, $F(1, 188) = 2.54$, *ns*, partial $\eta^2 = .01$, there was no difference among their ratings for intrinsic ($M = 7.29$, $SD = 1.25$) and extrinsic ($M = 7.24$, $SD = 1.49$) motivation. While Asian employees exhibited a similar pattern of self-ratings to that of their North American and Latin American counterparts, this effect among Asian employees was attenuated. A repeated measure ANOVA on ratings of intrinsic and extrinsic motivation among Asian employees revealed a marginally significant main effect for motivation, $F(1, 234) = 2.99$, $p < .10$, partial $\eta^2 = .01$, suggesting that even though employees rated themselves as more intrinsically ($M = 5.91$, $SD = 1.64$) than extrinsically ($M = 4.86$, $SD = 1.73$) motivated, this main effect was less pronounced and only marginally significant among Asians as compared to the other two cultural groups.

Unlike North Americans and Asians, Latin American managers' perceptions were congruent with their employees' perception of themselves as more intrinsically than extrinsically motivated. A repeated measure ANOVA on Latin American managers' ratings of employee intrinsic and extrinsic motivation, $F(1, 265) = 5.85$, $p < .05$, partial $\eta^2 = .02$, indicated that they judged their employees to be more intrinsically ($M = 7.01$, $SD = 1.51$) than extrinsically ($M = 5.78$, $SD = 1.99$) motivated. Correspondingly, results from a repeated measure ANOVA on Latin American employee ratings of intrinsic and extrinsic motivation revealed a significant main effect, $F(1, 454) = 8.69$, $p < .01$, partial $\eta^2 = .02$, in which employees rated themselves significantly higher on intrinsic motivation ($M = 7.10$, $SD = 1.71$) than on extrinsic motivation ($M = 5.66$, $SD = 1.52$).

Performance appraisals

We predicted that managers' ratings of intrinsic and extrinsic motivation would vary cross-culturally in their ability to predict performance. Traditional regression models (i.e., those employing ordinary-least-squares estimation) made the assumption that the observations are independent—an assumption which is violated by the current nested design (i.e., in this study, managers rated anywhere from 2 to 77 employees). To avoid potential distortions in the Type-I error rate resulting from violations of the independence assumption, we employed hierarchical linear modeling as the method for analyzing cultural differences in the relationship between performance and motivation ratings. In the hierarchical linear

modeling analysis, the relationship between a criterion variable and one or more regressors was initially evaluated for those units at the lowest level of the nested design. Regression coefficients were estimated separately at the level of the design, and the vectors of coefficients that result were then predicted by a system of equations which relate the coefficients to units at the highest level (Bryk & Raudenbush, 1992; Goldstein, 1995; Kenny, Kashy, & Bolger, 1998; Kreft & De Leeuw, 1998; Snijders & Bosker, 1999). The advantage of this procedure was that it resulted in the production of an error term that took into account the lack of independence between observations at the lowest level. Iterative maximum-likelihood estimation, rather than ordinary-least-squares, was then used to estimate the coefficients in the model (Bryk & Raudenbush, 1992; Kenny et al., 1998).

To examine whether the relationship between manager and employee intrinsic/extrinsic motivation ratings and performance appraisal varied by culture, we used a maximum likelihood approach, as implemented in the computer program HLM (Raudenbush, Bryk, & Congdon, 2000). In our study, employees were nested within managers, who were, in turn, nested within cultures. According to our hierarchical linear model, there were two steps in the estimation procedure. In the first step, we specified the equation

$$Y_{ij} = b_{0j} + b_{1j}(\text{employee age}) + b_{2j}(\text{employee tenure}) \\ + b_{3j}(\text{employee gender}) + b_{4j}(\text{employee position}) \\ + b_{5j}(\text{managerial intrinsic rating}) \\ + b_{6j}(\text{managerial extrinsic rating}) \\ + b_{7j}(\text{employee intrinsic rating}) \\ + b_{8j}(\text{employee extrinsic rating}) + e_{ij}, \quad (1)$$

where Y is the managerial performance rating, i an employee, j a manager, and e is the error.⁴ The inclusion of employees' own ratings of their intrinsic and extrinsic motivation allowed us to test whether manager perceptions predicted the performance measure, controlling for any differences in employees' self-evaluations. Additionally, we included employee age, tenure, gender, and position as covariates. The vectors of coefficients in the level-1 equation then served as criterion measures in the level-2 regression equations

$$b_{kj} = a_{k0} + a_{k1} * D_1 + a_{k2} * D_2 + u_{kj}, \quad (2)$$

where k is the level 1 coefficient, u is error, and D_1 and D_2 are dummy variables representing two of our three cultural groups. Dummy variables were coded such that the ethnic group represented by the dummy was coded as 1, and all others were coded as 0. In each level-2 equation, the constant a_{k0} represented the estimated

value of b_{kj} for the cultural group designated as the baseline, while the coefficients a_{k1} and a_{k2} represented the estimated differences between the baseline group b_{kj} and the value of b_{kj} for the groups represented by the two dummy variables (D_1 and D_2 , respectively). To obtain significance tests for all within-culture slopes and for all between-culture differences in those slopes, we ran the HLM analysis three times with a different cultural group designated as the baseline at each iteration. For simplicity, we used the notation b to represent each culture's b_{kj} and the notation b_{diff} to represent the coefficient for the estimated between-culture difference in b_{kj} .

Consider, first, whether the slopes for the manager intrinsic motivation with performance and manager extrinsic motivation with performance differed from zero in each of the three cultures. As shown in Table 4, results indicated that, among North Americans, the manager intrinsic motivation slope, $b = .55$, $t(178) = 17.39$, $p < .01$ and the manager extrinsic motivation slope, $b = .27$, $t(178) = 8.24$, $p < .01$, both differed significantly from zero. Similarly, among Asians, the manager intrinsic motivation slope, $b = .37$, $t(178) = 4.09$, $p < .01$, and the manager extrinsic motivation slope, $b = .44$, $t(178) = 5.99$, $p < .01$, were both significant. By contrast, among Latin Americans, the manager intrinsic motivation slope, $b = .65$, $t(178) = 10.98$, $p < .01$, differed from zero while the manager extrinsic motivation slope, $b = -.03$, $t(178) = -.71$, *ns*, did not. Thus, among North Americans and Asians, managers' ratings of intrinsic and extrinsic motivation were both significant predictors of performance appraisal. However, among Latin American managers, only intrinsic ratings predicted subsequent performance appraisal. Although we included employee intrinsic and extrinsic motivation as predictors in our model as well, they proved to be, at best, only marginally significant predictors of performance appraisal for all cultural groups sampled.

The extent to which managerial intrinsic and extrinsic coefficients predicted performance appraisal varied significantly by culture. As shown in Table 4, results on manager intrinsic motivation revealed that North Americans and Latin Americans were both significantly higher than Asians ($b_{\text{diff}} = -.19$, $t(178) = 1.97$, $p < .01$; $b_{\text{diff}} = .28$, $t(178) = 2.61$, $p < .01$ respectively); Latin and North Americans did not differ from one another ($b_{\text{diff}} = .09$, $t(178) = 1.37$, *ns*). When comparing the manager extrinsic motivations, results showed that the Asian slope was significantly higher than that of North Americans' ($b_{\text{diff}} = .17$, $t(178) = -2.07$, $p < .05$); both in turn were significantly higher than Latin Americans' ($b_{\text{diff}} = -.46$, $t(178) = -5.78$, $p < .01$; $b_{\text{diff}} = -.30$, $t(178) = -5.68$, $p < .01$ respectively). With the exception of the difference between Asians and North Americans in the slopes for employee intrinsic motivation,

⁴ Note the error term indicates the presence of random effects in Eq. (1) as well as all following equations. All variables included in the equations are centered.

Table 4

Slopes of managerial and employee ratings of intrinsic and extrinsic motivation with managerial and HR performance ratings across cultures

Coefficient	North Americans		Asians		Latin Americans	
	Manager	HR	Manager	HR	Manager	HR
<i>Manager</i>						
Intrinsic motivation	.55** _a	.13** _a	.37** _b	.04 _b	.65** _a	.13** _a
Extrinsic motivation	.27** _a	.07** _a	.44** _b	.17** _a	-.03 _c	.002 _b
Difference score	.28** _a	.06** _a	-.07 _b	.13* _a	.67** _c	.13+ _b
<i>Employee</i>						
Intrinsic motivation	-.03 _a	-.01 _a	.10 _b ⁺	.01 _a	-.00 _{ab}	.05 _a
Extrinsic motivation	.05 _a ⁺	.02 _a	-.07 _a	.02 _a	-.02 _a	.03 _a
Difference score	-.09 _a ⁺	-.03 _a	.02 _a	-.01 _a	.12 _a	.02 _a

Note. Slopes that do not share subscripts within Manager item row are significantly different at $p < .05$ level. Similarly, slopes that do not share subscripts within HR item row are significantly different at $p < .05$ level. Slopes that are significantly different from 0 are indicated by the following: ⁺ $p < .1$. * $p < .05$ ** $p < .01$.

none of the cultural differences in slopes for the employee ratings proved to be significant.

Our initial hierarchical linear model allowed us to examine the differences of each culture's slopes from zero and the differences between cultures in the magnitude of those slopes. What it did not permit us to examine, however, was whether there were significant within-culture differences between the slope for managers' intrinsic ratings and the slope for managers' extrinsic ratings. In order to examine within-culture differences in these slopes, we conducted a separate hierarchical linear model in which the managers' and employee ratings of extrinsic motivation in Eq. (1) were replaced by (a) the sum of the managers' intrinsic and extrinsic motivation ratings, and (b) the sum of the employees' intrinsic and extrinsic motivation ratings. This gave rise to the following level-1 equation:

$$\begin{aligned}
 Y_{ij} = & b_{0j} + b_{1j}(\text{employee age}) + b_{2j}(\text{employee tenure}) \\
 & + b_{3j}(\text{employee gender}) + b_{4j}(\text{employee position}) \\
 & + b_{5j}(\text{manager intrinsic rating}) \\
 & + b_{6j}(\text{employee intrinsic rating}) \\
 & + b_{7j}(\text{manager intrinsic} \\
 & + \text{manager extrinsic ratings}) \\
 & + (b_{8j}(\text{employee intrinsic} \\
 & + \text{employee extrinsic ratings}) + e_{ij}, \quad (3)
 \end{aligned}$$

where once again, Y is the managerial performance rating, i an employee, j a manager, and e is the error. We included the sum of managers' intrinsic and extrinsic ratings as a regressor in our model so that the coefficient on managers' intrinsic ratings alone would represent the difference between the effects of managers' intrinsic and extrinsic ratings. Similarly, we included the sum of employee intrinsic and extrinsic ratings in our model so that the coefficient on employee intrinsic ratings alone would represent the difference between the effects of employee intrinsic and

extrinsic ratings.⁵ Henceforth, the coefficient on managers' intrinsic ratings will be referred to as the managerial difference score, and the coefficient on employee intrinsic ratings will be referred to as the employee difference score. The level-2 equation remained as before. Our interest was in the value and significance of a_{k0} when the level-2 equation predicted the singular intrinsic rating coefficients. As with the first hierarchical linear model, we ran the new analysis three times with a different cultural group designated as baseline in each iteration, so that we could estimate a_{k0} for each group separately.

As illustrated in Table 4, the managerial difference scores for both North Americans, $b = .28$, $t(178) = 5.46$, $p < .01$, and Latin Americans, $b = .67$, $t(178) = 8.51$, $p < .01$, were significantly different from zero in a positive direction, indicating that North American and Latin American managers weighed intrinsic motivation more than extrinsic motivation in their performance appraisals. Consistent with our predictions, the managerial difference score for the Asians, $b = -.02$, $t(178) = -.07$, ns , did not differ significantly from zero, suggesting that manager ratings of employees' intrinsic and extrinsic motivation were equally strong predictors of their performance appraisals. Once again, the inclusion of employee difference scores proved to be, at best, only marginally significant predictors of performance appraisal for all cultural groups sampled.

Although these analyses demonstrated that the relationships between managers' perceptions of motivation and managers' performance ratings were reliably different across cultures, it was possible that the very observation of a link between ratings of motivation and ratings of performance might have resulted from the

⁵ The logic of this procedure follows from the general principle that, when the sum of two variables and either component of the sum are used as predictors, the coefficient on the component variable represents the difference between the coefficients on the two components of the sum.

simultaneous collection of the three measures. Consequently, identical analyses were conducted using the performance rankings assigned during the past year by the HR directors. We conducted identical multilevel analyses as specified in the previous equations using the *z*-standardized performance rankings generated from HR directors as our dependent variable (*Y*). As seen in Table 4, when comparing manager intrinsic slopes, manager extrinsic slopes, and managerial difference scores within and across cultures, we observed a similar pattern of results to those observed in the previous analyses, which used the manager ratings of employee performance.

General discussion

Summary of findings

Three distinct cultural patterns of managers' perceptions of employee motivation emerged. North American managers perceived their employees to be more extrinsically than intrinsically motivated. Asian managers perceived their employees as equally motivated by intrinsic and extrinsic factors. Latin American managers perceived their employees to be more intrinsically than extrinsically motivated. Employees, by contrast, perceived themselves to be more intrinsically than extrinsically motivated though this difference was attenuated among Asian employees.

Findings revealed a strong association between managers' perceptions of motivation and appraisal of employee performance (both in terms of managers' subjective appraisals of employee performance and the performance ratings obtained from HR). Across each of the cultural regions we sampled, managers' perceptions of employee intrinsic motivation were robust predictors of performance appraisal. As illustrated in Fig. 1, notable cultural differences were observed in the associations between the managers' perceptions of employee extrinsic motivation and the appraisal of employee performance. Despite judging employees to be more extrinsically than intrinsically motivated, North American managers' appraisals of employee performance were more strongly predicted by their perceptions of employee intrinsic motivation than perceptions of extrinsic motivation. Contrastingly, not only did Asian managers perceive employees to be motivated comparably by both intrinsic and extrinsic motivation, but managers' perceptions of intrinsic and extrinsic motivation also proved to be comparable predictors of their appraisal of employee performance. Yet a third pattern was exhibited by Latin American managers who judged their employees to be more intrinsically motivated, and only weighed their perceptions of employee intrinsic motivation in appraising performance. Across the three

cultural regions sampled in this study, employees' perceptions of their own motivation proved to be non-significant predictors of their managers' performance evaluations.

Implications for the study of culture

As seen in Fig. 1, the apparent paradox of rewarding employees who defied expectations of motivation appeared to be unique to North America. Specifically, North American managers rewarded employees based on their perceptions of intrinsic motivation, which was the opposite of their presumptions about what primarily motivates their employees (i.e., extrinsic motivation). This paradox exhibited by North American managers is plausibly explained by cultural differences in the preferences for deviance. According to Markus and Kitayama's (1991) seminal cultural analysis, members of individualist cultures value uniqueness (i.e., deviation from the norm). In fact, studies comparing Korean and North American consumer goods preferences showed that North Americans were more likely to choose products that they perceived to be unique and less frequently chosen by others (Kim & Markus, 1999). Hence, even in organizational settings, North American managers may be biased in their employee appraisals by disproportionately valuing those attributes that contradict the norm, while Asian and Latin American managers may disproportionately value employees who are the exemplars of the managers' assumptions of employee behavior.

Consistent with our predictions drawn from prior theory and research, Asian managers displayed a more holistic view of their employees—that is they both perceived their employees as being equally motivated by intrinsic and extrinsic factors and weighed both factors comparably in their performance evaluations (Choi & Nisbett, 1998; Choi, Nisbett, & Norenzayan, 1999; Nisbett et al., 2001; Peng & Nisbett, 1999). Even Asian employees exhibited a tendency towards perceiving themselves as being comparably motivated by intrinsic and extrinsic factors. Perhaps as Asians considered both the individual and the context of the individual's behavior, the distinction between intrinsic and extrinsic motivation so pervasive in Western theories of motivation might be blurred (Hernandez & Iyengar, 2001; Iyengar & Lepper, 1999, 2002).

Too often, psychological research on cultural differences simply compares an individualist country to a collectivist one and ascribes differences to culture. By including multiple countries from each cultural region, the current study was able to make important distinctions in patterns of behavior among different collectivist cultures. Specifically, our inclusion of both Asians and Latin Americans as counterpoints to North American individualists suggested the need for a more fine-grained

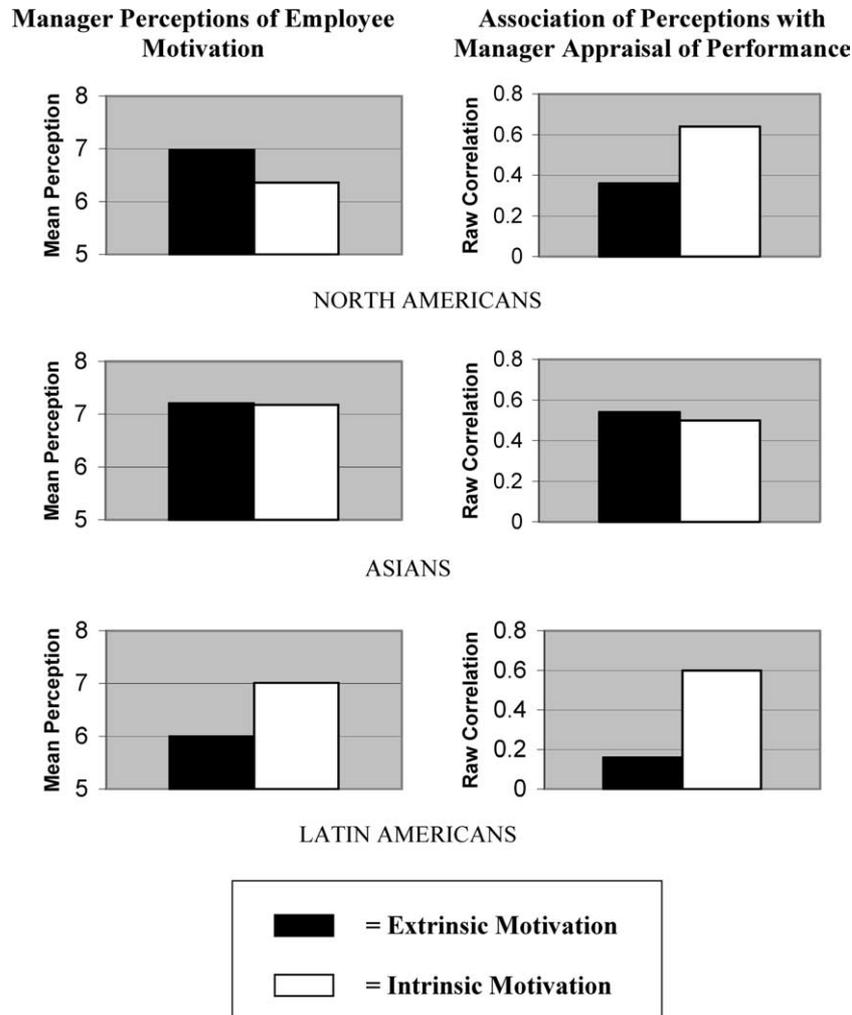


Fig. 1. Incongruent (North American) and Congruent (Asian and Latin American) managers' theories of subordinates. The left hand column depicts manager perceptions of both employee extrinsic motivation (black bars) and employee intrinsic motivation (white bars) by cultural region on a 1 (*not at all motivated*) to 9 (*extremely motivated*) scale. The right hand column depicts the raw correlation of manager appraisal of employee performance with both manager perception of extrinsic motivation (black bars) and manager perception of intrinsic motivation (white bars) by cultural region.

conceptualization of collectivism. Previously, cultural psychologists have theorized that both Asians and Latin Americans would display patterns distinct from North Americans but similar to each other (e.g., Hofstede, 1980, 1990; Markus & Kitayama, 1991; Triandis, 1995). Yet, Latin American managers exhibited a perceptual pattern of motivation that is distinctive from both North American and Asian managers—that is Latin American managers perceived their employees to be more intrinsically than extrinsically motivated. In fact, congruence between managers' theories of employee motivation and employees' self-perceptions of motivation was exhibited only among Latin Americans. This alignment might be attributed to the predominant cultural tradition of *simpatía* in Latin American culture, which heightens both attention to indirect cues and expressions of internal socio-emotional displays (Sanchez-Burks et al., 2003). Perhaps, if Latin American actors'

internal states were more explicit, then effects such as the illusion of transparency (Gilovich, Savitsky, & Medvec, 1998)—in which actors are prone to overestimate the degree to which their internal states “leak out” and are readily discernable to observers—might be greatly attenuated as compared to their North American and Asian counterparts.

Implications for organizational behavior

This investigation demonstrates how the perceptions of motivation that managers possess are strongly associated with how managers evaluate employee performance. In order to accurately compare performance ratings across international branches, global organizations must first have an understanding of how cultural differences factor into local managers' perceptions of motivation and their performance appraisals.

The results of this international study suggest that attempts to evaluate the effectiveness of incentives packages (e.g., bonuses) across cultures may be problematic when manager evaluations of performance are used. For example, increasing extrinsic incentives may potentially influence Asian employee performance appraisal more than Latin and North American performance appraisal. Asian managers may be more inclined to accompany the increase in incentives with a coinciding boost in their appraisal of performance; whereas, Latin and North American managers may be inclined to value the effects of extrinsic motivation to a much lesser degree when evaluating changes in performance.

An even more pressing concern appears to be the North American paradox of valuing and rewarding motivation in a way that is at odds with managers' expectations of employee motivation. Although North American observers in the workplace tend to view others as primarily extrinsically driven, managers focus overwhelmingly on their perceptions of employees' intrinsic motivation when evaluating performance. Thus, it would seem that performance appraisals, for which the criteria of evaluation is biased against the employee, may adversely affect employee motivation and job satisfaction. To excel in the performance process, it appears that North American employees need to distinguish themselves from the perceived norm by making their managers aware of how their personal attitudes and behaviors deviate from those generally attributed to their co-workers. Consequently, those employees who are better able to employ impression management strategies (Wayne & Liden, 1995; see also Goffman, 1959) conveying that their motivations coincide with those that are most valued by their managers are more likely to compare favorably in the performance appraisal process. While Asian and Latin American employees share the challenge of trying to epitomize their managers' perceptions, North American employees face the task of appearing to be the inverse of their managers' lay presumptions. Such strategies would appear to be particularly important given that employee self-reports of intrinsic and extrinsic motivation do not significantly predict managers' appraisal of employee performance in any of the countries we sampled.

The implications of the patterns observed in this study are potentially significant for efforts to maximize employee productivity. Previous research has often documented the potential disconnect between theories of behavior and reality (e.g., Nisbett & Ross, 1980). For example, the literature on confirmation bias suggests that if managers expect their employees to be more motivated by certain incentives, then they may not seek out evidence to the contrary and may only perceive employee behavior that confirms their initial presumptions (e.g., Schwartz, 1986, 1997; Snyder & Swann, 1978). Similarly, the incentives offered by managers may

induce the very employee behavior they are endeavoring to combat, and thus render their theories self-confirming (Schwartz, Schuldenfrei, & Lacey, 1981). Indeed, when managers' presumptions concerning their employees' motivations are incongruent with their employees' self-perceptions, the incentives packages created may be less attractive to employees than expected (Heath, 1999).

Limitations and future research

While the present study afforded substantial advantages in addressing the research questions of interest, two limitations merit consideration in the context of future research. As we discuss in Footnote 1, our use of a one-item measure is more prone to potential biases than multi-item measures. The fit results of a confirmatory factor analysis on a set of eight items (four intrinsic and four extrinsic) drawn from Heath (1999), including items that corresponded to the content of our one-item measures, prove highly consistent with our psychometric assumptions that intrinsic and extrinsic items were interpreted similarly across the cultures we sampled. Moreover, even though the error associated with one-item measures of intrinsic and extrinsic motivation should have, if anything, reduced the probability of obtaining significant differences among comparison groups, it is important for future research to employ multi-item measures of managers' lay theories of subordinates. Indeed, the construct validity of the one-item measures employed in this study remains an open question. For example, a multi-item measure of manager perceptions of intrinsic and extrinsic motivation may not exhibit the same psychometric properties across each of the cultural regions we sampled. In particular, our data suggest that Asian managers are not as prone to distinguish between intrinsic and extrinsic incentives either in their perceptions of motivation or appraisal of performance.

Another important limitation, given the correlational nature of the study, is the study's inability to address cultural differences in the causal link between perceptions of motivation and the appraisal of performance. Future research should employ laboratory experiments where both the perceptions of intrinsic and extrinsic motivation and perceived employee performance can be manipulated with participants from each of the cultural regions we sampled. Lab experiments hold greater potential for establishing these causal links, and elucidating the underlying mediating mechanisms of these observed cultural differences.

Conclusion

By elaborating upon research on the assumptions managers hold about their employees in a real world organizational context, we specify the cultural variability

of managers' theories of subordinates. In particular, we investigate how managers perceive their employees to be motivated, and, in turn, how managers weigh these perceptions when appraising employee performance. To the extent that managers' perceptions of motivation influence the manner in which employee performance is evaluated, the applicability of managers' theories of subordinates is broadened from the type of incentives programs managers devise and implement for employees, to the very evaluation of whether these organizational deals are perceived as successful by managers. The importance of McGregor's approach to the study of motivation is that it allows us to reach an understanding of how the layperson de facto applies the theories academics seek to empirically validate (McGregor, 1960). By conducting this research in three culturally distinct geographic regions, we have taken an important step towards exposing the cultural variability that exists in the layperson's theories about the social world.

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