Interrelating leadership behaviors, organizational socialization, and organizational culture

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Abstract
Purpose – The purpose of this paper is to look into the theories regarding leadership, organizational culture, and organizational socialization and the theory that some aspects of socialization (e.g. employee enthusiasm for, or lack of, cooperation) can influence an organization’s culture.
Design/methodology/approach – Via questionnaire, 166 employees from a variety of organizations evaluated their leaders and companies on all variables. Correlation and regression analyses were employed.
Findings – Correlations revealed leader behaviors to be more control-oriented in bureaucratic culture; and more flexible-oriented in innovative culture; but, contrary to expectations, more control-oriented in supportive culture. Regressions confirmed these results and revealed that both leadership and socialization explained significant variance in all cultures. The leadership behaviors were also differentially associated with the socialization content domains, supporting most but refuting some aspects of organization theory.
Research limitations/implications – The unexpected finding of highly control-oriented leader behaviors in supportive culture suggests the need for more research in this area.
Practical implications – A need for more flexible leader behaviors in certain organizational cultures was found. Leadership behaviors needing development in regard to socialization were likewise revealed. Also found, were aspects of socialization content that need more management attention in all three types of organizational cultures examined.
Originality/value – This is the first empirical analysis of the interrelationships among the organizational socialization content areas, leadership behavior, and organizational culture.
Keywords Socialization, Organizational culture, Leadership, China
Paper type Research paper

Theories regarding leadership, organizational culture, and organizational socialization have developed largely independently. Leadership theories have been around for a very long time, but, as Block (2003) recently pointed out:

Despite numerous references to a relationship between leadership and organizational culture in the academic and popular literature, little systematic research has been conducted to examine the specific nature of this relationship (Block, 2003, p. 318).

Theories on organizational culture have been hampered by the lack of a commonly accepted definition of what “culture” is (Schein, 1984). Also, varying definitions of this term required different measures, which might explain the lack of congruence in research findings (see Lewis, 1996, for a review). Theories on organizational
socialization, on the other hand, have evolved to a point where there seems to be general agreement about its content domains (see Taormina, 1997, 2004), but these content areas of organizational socialization have not yet been rigorously examined in relation to either leadership or organizational culture.

By virtue of the authority of their positions, leaders have considerable freedom to decide how their organizations will be run, and can thus be expected to play a major role in influencing the culture of an organization. It is also thought that organizational socialization involves behaviors (by various organization members) that facilitate employee acculturation. Therefore, it is also possible that some aspects of socialization (e.g. employee enthusiasm for, or lack of, cooperation) can influence an organization’s culture. Thus, the research question becomes whether, and to what extent, specified leadership roles and content areas of organizational socialization are related to and can predict some well-recognized aspects of organizational culture. Since this is a rather complex empirical question, some investigative approaches (e.g. a case-study approach; see, e.g. Parker, 2000) might have difficulty with it, while a database approach should have a better chance of answering it. Consequently, in the following sections, the three constructs are first briefly defined, and then the relationships among them are considered and empirically tested.

Organizational culture
In reflecting on social science research on organizations since the 1960s, Schein (1996) argued that more attention should be given to culture. Since culture is an abstract concept, a major factor preventing its effective use has been the difficulty in finding an appropriate definition. Fortunately, however, social scientists began to converge on an operational definition of culture as the attitudes, values, beliefs, and behaviors that are shared by a particular group of people (see Adler, 1986; Rousseau, 1990; Triandis, 1996), i.e. a definition that uses identifiable, measurable, and enduring behavioral components. Many studies have been conducted to assess some of these components (e.g. values), but few valid and reliable instruments have been created to measure some of the most characteristic and recognizable facets of organizational culture.

One early, but still valid, instrument developed to measure some well-recognized types of culture was conceived by Wallach (1983) to assesses three commonly accepted aspects of organizational culture, namely: bureaucratic; innovative; and supportive. Wallach characterized each facet with adjectives that reflect distinguishing attitudes, behaviors, and values. Bureaucracy is viewed as hierarchically structured, orderly, procedural, and highly regulated. innovativeness is seen as creative, enterprising, risk-taking, and results-oriented. supportiveness is characterized by equitable, sociable, trusting, and collaborative behaviors.

According to Wallach (1983), organizational cultures are not exclusively of one type, but instead contain varying amounts of each facet. Wallach’s measures have been considered to have sound theoretical foundations (Shadur et al., 1999), and have been studied in relation to such variables as organizational commitment (Lok and Crawford, 1999), job satisfaction (Silverthorne, 2004), and employee involvement (Shadur et al., 1999). While the foregoing studies typically used culture as an independent variable, the present study examines organizational culture as a dependent measure.
Leadership behaviors

Leadership has been approached from a number of viewpoints, including individual traits, behaviors, contextual perspectives, and combinations of these viewpoints. The earliest theorizing was Plato’s (c. 428-347 BC) purely philosophical reasoning, i.e. in *The Republic* (Plato, 1993, originally written c. 360 BC), which declared that leadership is a congenital trait. Since Plato has been regarded as one of the most influential thinkers on leadership (see Takala, 1998), this might explain why modern (twentieth century) empirical research on leadership tended to look for a single trait.

Among the behavioral approaches, a turning point was reached in the 1950s with the two-factor Ohio State model (Stogdill and Coons, 1957), which identified task-oriented (initiating structure) and people-oriented (consideration) leader behaviors. These two styles might be considered archetypal leadership behaviors because they have reappeared, under various names in the 50 years since the original research was published. For example, they appear as main components in the managerial grid (Blake and Mouton, 1964), contingency theory (Fiedler, 1967), and path-goal theory (House, 1971). These models demonstrate that the theory of leadership has evolved from using a single trait to using multiple dimensions. (For a more complete historical treatment of leadership theory, see Grint, 2000).

The broadest behavioral model is probably Quinn’s (1988) eight-dimensional, competing values model. Its two bipolar axes (i.e. an internal-external axis that is orthogonal to a control-flexibility axis) intersect to create four quadrants, each of which includes two characteristic leader behaviors (or roles). For Quadrant 1 (the Open Systems Model), they are the Innovator (willing to try new approaches) and the Broker (meets people from outside for negotiation). Those for Quadrant 2 (the Rational Goal Model) are the Producer (task oriented and work focused) and the Director (provides structure by making plans and setting goals). Those for Quadrant 3 (the Internal Process Model) are the Coordinator (maintains the work flow) and the Monitor (determines whether rules are being followed). The behaviors for Quadrant 4 (the Human Relations Model) are the Facilitator (encourages teamwork to build cohesion) and the Mentor (helps develop people by being considerate, open, and fair).

The behaviors are necessary yet conflicting, that is, leaders must perform all eight behaviors even though performing one reduces the time available to perform others. For example, when performing the Broker (external-flexible) role it is difficult to concurrently perform the opposite Monitor (internal-control) role. Consequently, Quinn’s (1988) model invites empirical analysis. The model has been used to test personal characteristics for their influence on the leadership behaviors (e.g. Shim et al., 2002) and the impact of the behaviors on organizational performance (e.g. Hart and Quinn, 1993).

Leadership and organizational culture

Some research on leadership and culture has been conducted. For example, Ogbonna and Harris (2000), used two measures of leadership they created and found them related to innovative culture. One attempt to use Quinn’s (1988) leadership roles in regard to culture was by Lamond (2003), who found eight organizational “clusters”, three of which may be considered similar to Wallach’s (1983) cultural facets.

More recently, Li (2004) studied the relation between transactional and transformational leadership styles and job outcomes (satisfaction and performance)
in bureaucratic, innovative, and supportive cultures. Cluster analysis was used to group organizations by culture (even though Wallach, 1983, stressed that all organizations contain all three cultural facets). The results yielded two culture clusters, which were assessed in relation to leadership style. While all correlations were significant, transformational leadership had higher correlations with the bureaucratic, innovative, and supportive cultures. Since transactional leaders are task-oriented and transformational leaders are relationship oriented (see Bass and Avolio, 1993), the results could suggest either that transformational leadership is likely in all organizational cultures, or that it is more prominent in Chinese (collectivist) organizations (see Li, 2004, p. 435).

Studies on the leadership-culture relationship by Lok and Crawford (1999, 2001, 2004) using Wallach’s (1983) cultural dimensions have been revealing. In one study, bureaucracy was unrelated to consideration leadership, but positively related to initiating structure; while both innovative and supportive cultures had high positive correlations with consideration. In their second study, structure-oriented leadership had slightly significant correlations with all three cultures, while consideration was unrelated to bureaucratic culture, slightly related to innovative, and highly related to supportive culture. In their third study, consideration was positively and significantly related to all three cultures, showing the strongest relation with supportive and innovative cultures, and the weakest with bureaucratic culture. Initiating structure had a strong positive relation with bureaucratic culture, a slight negative relation with innovative, and a strong negative relation with supportive culture.

None of the above studies used both Quinn’s (1988) leader behaviors and Wallach’s (1983) cultural facets. The results from those studies, however, do suggest relationships that might be expected between Quinn’s control (Monitor, Coordinator, Producer, and Director) versus flexible (Innovator, Facilitator, Broker, and Mentor) leadership behaviors and Wallach’s bureaucratic, innovative, and supportive facets of organizational culture. Namely:

To the extent that bureaucratic culture is highly regulatory:

H1. Control leadership behaviors will be (a) more positively correlated with and (b) stronger predictors of bureaucratic culture than will flexible leadership behaviors.

To the extent that innovative culture is more risk-taking:

H2. Flexible leadership behaviors will be (a) more positively correlated with and (b) stronger predictors of innovative culture than will control leadership behaviors.

To the extent that supportive culture is characterized by sociability:

H3. Flexible leadership behaviors will be (a) more positively correlated with and (b) stronger predictors of supportive culture than will control leadership behaviors.
Organizational socialization

One definition of organizational socialization describes it as:

[...] the process by which an individual comes to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role and for participating as an organizational member (Louis, 1980, pp. 229-230).

Most research on socialization focused on its process, but in the last decade, Chao et al. (1994) and Taormina (1994) identified distinct content areas of socialization. The latter has four content areas, namely:

1. training;
2. understanding;
3. coworker support; and
4. future prospects.

Training asks employees to assess the extent to which their organizations provide job skills. Understanding asks how well they comprehend the organization's operations, etc. Coworker support asks employees to assess the extent to which other workers provide assistance to them. Future prospects asks them to appraise the rewards and opportunities in their organization. Whereas the latter model has been found to be more parsimonious (see Taormina, 2004), it will be used to examine the relationships that its four content areas have with leadership and culture.

Organizational socialization and leadership

Assessing the relation between leadership behaviors and the organizational socialization content areas is one of the main objectives of this study because there has been little research on this topic. In regard to these variables, some relationships between Quinn's (1988) leadership behaviors and the socialization domains might be supposed. For example, Quinn's model sees employee development as a concern of flexible leadership (i.e. Quadrant 4), which would predict that the mentor and facilitator should be concerned with employee training and understanding. Differing views, however, do exist. For example, Van Maanen (1978, p. 35) stressed the importance of "control over individual behavior in organizations", implying that control may be more prevalent. To empirically evaluate these contrasting views, two alternate hypotheses can be generated. First, if leaders are more concerned with controlling employee behavior than with flexibly developing human resources, the following hypothesis can be tested:

\textbf{H4.} Control-focused leadership behaviors will be more positively correlated with the (a) training, (b) understanding, (c) coworker support, and (d) future prospects socialization domains than will the flexibly-focused leadership behaviors.

Second, the alternate hypothesis would reflect Quinn's (1988) perspective on the importance of flexible leadership behaviors as regards employee development, namely:

\textbf{H5.} Flexibly-focused leadership behaviors will be more positively correlated with the (a) training, (b) understanding, (c) coworker support, and (d) future prospects socialization domains than will the control-focused leadership behaviors.
Organizational socialization and culture

Research on the socialization content areas and organizational culture has been sparse, as reflected in a review by Fisher (1986), which made no explicit mention of organizational culture. In a more recent review, Bauer et al. (1998) dedicated an entire section to socialization and culture, but did not refer to bureaucratic, innovative, or supportive organizational cultures. They did, however, strongly suggest that more research was needed on organizational socialization and culture.

In theory, the objective of any socialization process is to ensure that the individual fits into the larger social context. For organizations, Chatman (1989) argued that socialization was needed to achieve this fit by bringing the employees' and organization's values into congruence, and, subsequently, (Chatman, 1991) found support for this idea. Wilson and Elman (1990) found socialization tactics to be important in transmitting an organization's cultural values, and Cable and Parsons (2001) found socialization tactics to account for a significant amount of variance in employees' perceived fit with the organization.

The previous studies focused on socialization processes, but two studies examined socialization content. Anakwe and Greenhaus (1999) found “training” to be related to both the knowledge and acceptance of culture ($r = 0.16, p < 0.05$, for both), and found “co-workers” to be significantly related to knowledge of culture ($r = 0.25, p < 0.01$). These results suggest that some relationship should exist between socialization content areas and organizational culture. More recently, Autry and Daugherty (2003) used concepts from Schein (1991) and Taormina (1997) to measure person-organization fit by asking employees to rate their companies on reward and pay systems (i.e. future prospects), and their coworkers on behaviors such as cooperation (i.e. coworker support). Their results showed a strong association between job satisfaction and cognitive fit with company characteristics, implying that at least one socialization domain (i.e. future prospects) may be linked to organizational culture.

The above studies attempted to assess organizational socialization in relation to culture, but did not examine all four socialization content areas, or study them in relation to the bureaucratic, innovative, and supportive facets of organizational culture. From a theoretical perspective, however, all four socialization content areas are essential for employees to be fully socialized into any organization (Taormina, 1997); but this does not imply that all organizations (or cultures) actually do fully address all four socialization domains in practice.

In other words, some aspects of an organization's culture might place more or less stress on one or another of the socialization domains. Thus, to empirically assess the relationships among the socialization and culture variables, some additional hypotheses can be generated. For example, since bureaucratic culture stresses conformity to structure and order, training might be emphasized more, while opportunities for promotion might be lacking. Therefore, it could be speculated that:

$H6$. Bureaucratic culture will be (a) positively correlated with training, and (b) negatively correlated with future prospects.

Innovative culture, on the other hand, tends to be risk-taking and opportunistic, stressing creativity more than training. Also, rewards (e.g. bonuses) may be offered to any employee with good ideas regardless of his or her training. Therefore, it may be surmised that:
innovative culture will be (a) negatively correlated with training, and (b) positively correlated with future prospects.

In supportive cultures, management might offer training to foster employee development. Generally, in supportive cultures management encourages its employees and is considerate of their needs (the Ohio State model). If an organization does stress managerial consideration, the employees in the organization might follow the example offered by management and tend to behave in supportive ways with their coworkers. Therefore, it can be expected that:

Supportive culture will be positively correlated with (a) training and (b) coworker support.

Method

Participants
All 166 respondents (87 male, 79 female) were working adults of Chinese ethnicity, aged from 19 to 56 years (M = 34.61, SD = 10.10). For education, 5.42 percent had no education, the rest had completed primary school (11.46 percent), secondary school (28.31 percent), vocational college (21.08 percent), a bachelor degree (27.71 percent), or a master degree or above (6.02 percent). The number of total years of employment ranged from 0.50 to 38.00 (M = 13.14, SD = 9.51).

Measures
The questionnaire included items on organizational culture, organizational socialization, leadership style, and demographics. The latter asked for: Gender (0 = Female, 1 = Male); Age; Education (1 = Primary school, 2 = Secondary school, 3 = Vocational college, 4 = Bachelor Degree, and 5 = Master Degree or above); and years employed.

Organizational culture. This variable was measured with Wallach’s (1983) 24-item Organizational Culture Questionnaire, which uses eight adjective descriptors to assess each of the three cultural facets, i.e. bureaucratic, innovative, and supportive, in every organization. Using a four-point scale (1 = not at all, to 4 = exactly), respondents were asked to assess how well the adjectives describe their company. Sample adjectives included “Hierarchical” (for Bureaucratic), “Risk-taking” (for innovative), and “Encouraging” (for supportive). The reliabilities for the three scales were reported to be 0.82, 0.88, and 0.79 (see Akaah, 1993), and those for the present study were 0.85, 0.83, and 0.84 (respectively).

Leadership behavior. This was measured with Quinn’s (1988) 32-item Competing Values Instrument, which asks managers how much they use eight leadership behaviors, i.e. as Innovator (e.g. “Comes up with inventive ideas”), Facilitator, Broker, and Mentor for the “Flexible” (F) behaviors; and as Monitor, Coordinator, Producer, and Director for the “Control” (C) behaviors. The scale was originally designed as a self-assessment for managers, with a seven-point scale (1 = very infrequently to 7 = very frequently) and a six-step procedure for computing standardized “competing values scores” (Quinn, 1988, pp. 130-133).

The present study did not ask for self-assessments, but instead used a more objective technique of asking employees to evaluate their managers’ use of the eight behaviors. The full, 32-item version (four items for each behavior) was employed with a
five-point Likert scale (1 = almost never, to 5 = almost always). The original reliabilities for the eight scales ranged from 0.72 to 0.90, and those for the scales in this study ranged from 0.75 to 0.87.

Organizational socialization. This was measured using the 20-item Organizational Socialization Inventory (OSI, Taormina, 1994; revised, 2004), which includes four domains: training, understanding, coworker support, and future prospects (five items each). Using a seven-point Likert scale (1 = strongly disagree, to 7 = strongly agree), the respondents were asked to assess how well the items describe the socialization in their companies. For example, “The training in this company has enabled me to do my job very well” (Training). The reliabilities for the original (1994) OSI were 0.76 for training, 0.79 for understanding, 0.81 for coworker support, and 0.76 for future prospects; those for the revised (2004) scale were 0.76, 0.78, 0.72, and 0.68; and those for the present study were 0.85, 0.69, 0.73, and 0.70 (respectively).

Language of the questionnaire. As the data were obtained at a location where Chinese is spoken, the original English version was translated into Chinese and back-translated into English by professional, native-Chinese, bilingual translators. The back-translation was examined by a native English speaker and deemed equivalent to the original English version.

Procedure
The target respondents in this study were line-level Chinese adults working in local organizations in an international port city on the coast of southern China. To increase the probability of obtaining a representative sample of respondents, and to ensure that no one type of organization would overly influence the results, various large, medium, and small companies were randomly targeted at many locations around the city. The data were collected in the vicinity of these organizations where workers relax during their spare time, and potential respondents were approached using a predetermined random order.

All participants were told the general purpose of the study and assured that their answers would remain confidential. Those who agreed to participate were given a questionnaire that was collected on site when completed. Of the total 220 questionnaires handed out, 175 were returned, yielding a return rate of 79.55 percent. Of these, nine were discarded because five respondents indicated that they were not currently employed, and another four returned the questionnaires with insufficient data, leaving 166 questionnaires for analysis.

Results
Means and intercorrelations
Means, standard deviations, and intercorrelations for all the measured variables were computed, and are shown in Table I. To compare Quinn’s (1988) four Flexible (“F”) and four Control (“C”) behaviors (variables 8-11 and 12-15, respectively, in Table I), mean scores (and SDs) were computed for the flexible- and control-type behaviors. In a paired samples t-test, the mean for the control behaviors (M = 3.13, SD = 0.65) was significantly higher than that for the flexible behaviors (M = 2.83, SD = 0.65), indicating a higher overall control-type leadership orientation, t(162) = 5.65, p < 0.001.

To test the relative correlations specified in H(1a), H(2a), and H(3a), scores on the control leadership and flexible leadership behaviors were averaged and their
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<th>Variable</th>
<th>Mean</th>
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<td>0.76</td>
</tr>
</tbody>
</table>

**Notes:** Culture values ranged from 1 to 4; Socialization from 1 to 7; Leadership from 1 to 5; (F) = Flexible and (C) = Control leader behaviors; Reliabilities are on the diagonal. Significance levels are: $|r| \geq 0.16 = p < 0.05; |r| \geq 0.21 = p < 0.01; |r| \geq 0.23 = p < 0.005; and |r| \geq 0.27 = p < 0.001.
correlations computed with each of the organizational culture variables. To make the comparisons, the Hotelling/Williams test for differences between two dependent correlations was used. For bureaucratic culture, its correlation with the control behaviors \( r = 0.45 \) was significantly higher than its correlation with the flexible behaviors \( r = -0.02 \), \( t(163) = 6.98, p < 0.001 \), strongly supporting \( H(1a) \). For innovative culture, its correlation with the flexible behaviors \( r = 0.51 \) was significantly higher than its correlation with the control behaviors \( r = -0.11 \), \( t(163) = 10.28, p < 0.001 \), lending strong support for \( H(2a) \). With regard to supportive culture, its correlation with the control behaviors \( r = 0.54 \) was significantly higher than its correlation with the flexible behaviors \( r = 0.11 \), \( t(163) = 5.71, p < 0.001 \), strongly refuting \( H(3a) \).

To assess the relationships among the socialization variables and the control versus flexible leader behaviors, the Hotelling/Williams test was again used. For Training, its correlation with the control behaviors \( r = 0.57 \) was significantly higher than with the flexible behaviors \( r = 0.19 \), \( t(163) = 5.71, p < 0.001 \), supporting \( H(4a) \) and opposing \( H(5a) \). For Understanding, its correlation with the control behaviors \( r = 0.44 \) was also significantly higher than with the flexible behaviors \( r = 0.17 \), \( t(163) = 3.80, p < 0.001 \), supporting \( H(4b) \) and refuting \( H(5b) \). The Coworker Support correlation with the control leadership behaviors \( r = 0.30 \) was significantly higher than with the flexible leader behaviors \( r = 0.09 \), \( t(163) = 2.66, p < 0.01 \), supporting \( H(4c) \) and refuting \( H(5c) \). By contrast, the future prospects correlation with the control behaviors \( r = 0.08 \) was significantly lower than with the flexible behaviors \( r = 0.49 \), \( t(163) = 6.12, p < 0.001 \), contradicting \( H(4d) \) and supporting \( H(5d) \).

With regard to organizational socialization and culture, the strong, significant, positive correlation between bureaucratic culture and training \( r = 0.29 \) yielded powerful support for \( H(6a) \), \( p < 0.001 \); and the significant, negative correlation between bureaucratic culture and future prospects \( r = -0.26 \) yielded strong support for \( H(6b) \), \( p < 0.001 \). Also, the significant negative correlation between innovative culture and training \( r = -0.26 \) gave strong support to \( H(7a) \), \( p < 0.005 \); and the significant, positive correlation between innovative culture and future prospects \( r = 0.49 \) lent powerful support to \( H(7b) \), \( p < 0.001 \). Also, the strong, significant, positive correlations that supportive culture had with training \( r = 0.52 \) and with coworker support \( r = 0.32 \), provided strong support for \( H(8a) \) and \( H(8b) \), both \( ps < 0.001 \).

Tests for common-method bias and multicollinearity

Common-method bias was assessed by factor analyzing all the variables together, using the maximum-likelihood approach with a forced, one-factor solution (see Harman, 1960). The resultant Chi-square value is then divided by the degrees of freedom to assess model fit, whereby a ratio of less than 2.00:1 would indicate common-method bias. For this study, the ratio was 8.76:1, suggesting that common-method bias was not a concern.

Multicollinearity was assessed by a “tolerance” \( (1-R^2) \) test for each independent variable, wherein a tolerance value of less than 0.10 is problematic (see Hair et al., 1998, pp. 191-3). Using all the independent variables for the planned regressions, and regressing each on all the others, all the tolerance values were well above the 0.10 cut-off, indicating that multicollinearity was not a problem in these data.
Another objective of this study was to determine the extent to which leadership and socialization variables could predict organizational culture. To achieve this, a hierarchical, stepwise regression was run for each culture, which controlled for demographics while also examining the separate effects of all the leadership and socialization variables.

In the first regression, for bureaucratic culture, 55 percent of the variance was explained by two leader behaviors and two socialization variables (no demographics entered the equation), $F(4,151) = 47.76, p < 0.001$. In terms of power, the variance explained by any variable in a regression is its “effect size,” $f^2$ (where $f^2 = R^2 / [1-R^2]$), with minimum cut-off values of 0.02 for a small effect, 0.15 for a medium effect, and 0.35 for a large effect (see Cohen, 1992). The coordinator, a control behavior, had a large effect ($f^2 = 0.59$); and the Innovator, a flexible behavior (entering negatively), had a medium effect ($f^2 = 0.15$). These results supported $H(1b)$. Additionally, future prospects (entering negatively) and coworker support both had small effects ($f^2 = 0.03$ and 0.02, respectively).

In the regression for innovative culture, 58 percent of the variance was explained by two leadership behaviors and three socialization variables (no demographics entered the equation), $F(5,150) = 42.84, p < 0.001$. The flexible innovator behavior had a large effect ($f^2 = 0.96$), and the monitor, a control behavior (entering negatively), had a small effect ($f^2 = 0.05$). These results supported $H(2b)$. The socialization variables of future prospects, coworker support, and training (entering negatively) all had small effects ($f^2 = 0.03, 0.02,$ and 0.02, respectively).

In the regression for supportive culture, 53 percent of the variance was explained by three leadership behaviors and three socialization variables (no demographics entered the equation), $F(6,149) = 30.55, p < 0.001$. The producer, a control behavior, had a large effect ($f^2 = 0.41$), while the flexible mentor and innovator (entering negatively) both had small effects ($f^2 = 0.08$, and 0.05, respectively). These results did not support $H(3b)$. Also, coworker support, training, and future prospects (which entered negatively) all had small effects ($f^2 = 0.03, 0.04,$ and 0.02, respectively). The results of the three regressions for culture are shown in Table II.

In the next set of regressions, the socialization domains were regressed on the leadership behaviors (after removing the influence of demographics and culture). In the regression for Training, a total of 34 percent of the variance was explained by four leadership behaviors, $F(4,152) = 24.63, p < 0.001$. Two control leadership behaviors, i.e. the monitor and producer, together yielded a large effect ($f^2 = 0.37$), while two flexible leader behaviors, namely the mentor and innovator (which entered negatively), together yielded a small effect ($f^2 = 0.08$).

For understanding, a total of 18 percent of the variance was explained by two variables, $F(2,154) = 18.19, p < 0.001$. Both were control leadership behaviors, namely, the director, with a medium effect ($f^2 = 0.16$), and the coordinator, with a small effect ($f^2 = 0.04$).

For coworker support, a total of 9 percent of the variance was explained, also by two control behaviors, $F(2,154) = 8.41, p < 0.001$. These were the director and the coordinator, which both had small effects ($f^2 = 0.06$ and 0.03, respectively).

For future prospects, 31 percent of the variance was explained by three variables, $F(3,152) = 23.74, p < 0.001$. Two were flexible leader behaviors, with the Innovator
having a large effect \( f^2 = 0.35 \), and the facilitator having a small effect \( f^2 = 0.03 \). The other variable in the equation was the producer, which entered negatively with a small effect \( f^2 = 0.02 \). The results of all four regressions for socialization on the leadership behaviors are shown in Table III.

### Table II
Hierarchical regressions on three organization cultures, controlling for demographics (entered first = 1st), and using leadership (2nd) and socialization (3rd) as predictors \( (N = 166) \)

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Bureaucratic</th>
<th>Innovative</th>
<th>Supportive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( R^2 )</td>
<td>( \beta )</td>
</tr>
<tr>
<td>1st</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.06</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Age</td>
<td>-0.05</td>
<td>0.02</td>
<td>-0.07</td>
</tr>
<tr>
<td>Education</td>
<td>0.12</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Years employed</td>
<td>-0.03</td>
<td>0.01</td>
<td>-0.08</td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovator (F)</td>
<td>-0.22***</td>
<td>0.13</td>
<td>0.57****</td>
</tr>
<tr>
<td>Facilitator (F)</td>
<td>-0.10</td>
<td>0.06</td>
<td>0.04</td>
</tr>
<tr>
<td>Broker (F)</td>
<td>0.09</td>
<td>0.14</td>
<td>-0.04</td>
</tr>
<tr>
<td>Mentor (F)</td>
<td>-0.10</td>
<td>0.06</td>
<td>0.22***</td>
</tr>
<tr>
<td>Monitor (C)</td>
<td>0.08</td>
<td>-0.18**</td>
<td>0.05</td>
</tr>
<tr>
<td>Coordinator (C)</td>
<td>0.65****</td>
<td>0.37</td>
<td>-0.05</td>
</tr>
<tr>
<td>Producer (C)</td>
<td>-0.09</td>
<td>0.07</td>
<td>0.29****</td>
</tr>
<tr>
<td>Director (C)</td>
<td>-0.08</td>
<td>-0.01</td>
<td>0.09</td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>0.00</td>
<td>-0.18**</td>
<td>0.02</td>
</tr>
<tr>
<td>Understanding</td>
<td>0.11</td>
<td>-0.12</td>
<td></td>
</tr>
<tr>
<td>Coworker support</td>
<td>0.16**</td>
<td>0.02</td>
<td>0.14**</td>
</tr>
<tr>
<td>Future prospects</td>
<td>0 - 0.27****</td>
<td>0.03</td>
<td>0.23****</td>
</tr>
<tr>
<td>Total ( R^2 )</td>
<td>0.55</td>
<td>0.58</td>
<td>0.58</td>
</tr>
<tr>
<td>Final ( F )</td>
<td>47.76****</td>
<td>42.84****</td>
<td>30.55****</td>
</tr>
</tbody>
</table>

**Notes:** * \( p < 0.05 \); ** \( p < 0.01 \); *** \( p < 0.005 \); **** \( p < 0.001 \). Betas are standardized values; (F) = Flexible and (C) = Control leadership behaviors

having a large effect \( f^2 = 0.35 \), and the facilitator having a small effect \( f^2 = 0.03 \). The other variable in the equation was the producer, which entered negatively with a small effect \( f^2 = 0.02 \). The results of all four regressions for socialization on the leadership behaviors are shown in Table III.

### Table III
Stepwise regressions using socialization domains as criteria, leadership behaviors as predictors, and demographics removed \( (N = 166) \)

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Training</th>
<th>Understanding</th>
<th>Coworker support</th>
<th>Future prospects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( R^2 )</td>
<td>( \beta )</td>
<td>( R^2 )</td>
</tr>
<tr>
<td>Flexible leader behaviors:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovator</td>
<td>-0.31***</td>
<td>0.02</td>
<td>-0.02</td>
<td>-0.04</td>
</tr>
<tr>
<td>Facilitator</td>
<td>0.07</td>
<td>-0.06</td>
<td>-0.03</td>
<td>0.34***</td>
</tr>
<tr>
<td>Broker</td>
<td>0.00</td>
<td>-0.01</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td>Mentor</td>
<td>0.30**</td>
<td>0.05</td>
<td>-0.03</td>
<td>-0.08</td>
</tr>
<tr>
<td>Control leader behaviors:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor</td>
<td>0.29***</td>
<td>0.25</td>
<td>0.17</td>
<td>0.04</td>
</tr>
<tr>
<td>Coordinator</td>
<td>0.15</td>
<td>0.29***</td>
<td>0.14</td>
<td>0.21*</td>
</tr>
<tr>
<td>Producer</td>
<td>0.22**</td>
<td>0.02</td>
<td>0.11</td>
<td>0.08</td>
</tr>
<tr>
<td>Director</td>
<td>0.03</td>
<td>0.24**</td>
<td>0.04</td>
<td>0.17*</td>
</tr>
<tr>
<td>Total ( R^2 )</td>
<td>0.34</td>
<td>0.18</td>
<td>0.09</td>
<td>0.31</td>
</tr>
<tr>
<td>Final ( F )</td>
<td>24.63***</td>
<td>18.19***</td>
<td>8.41***</td>
<td>23.74***</td>
</tr>
</tbody>
</table>

**Notes:** Betas are standardized values; * \( p < 0.05 \); ** \( p < 0.005 \); *** \( p < 0.001 \)
Discussion
The first notable result in this research was the highly significant difference between the mean scores for flexible and control leadership behaviors, with the mean for flexible behaviors being significantly lower. This strongly suggests that the employees perceived their managers to be more control oriented, while lacking in flexibility.

Leadership and organizational culture
In the results for leadership and culture, a revealing pattern of correlations was found. For bureaucratic culture, the four control-oriented leader behaviors had significant positive correlations, while only one flexible behavior was significant and negative. The regression was consistent with these findings. These results strongly supported the idea that bureaucratic culture is characterized by leaders who favor the use of control rather than flexible behaviors.

For innovative culture, the reverse results were obtained, namely, all flexible behaviors had highly significant, positive correlations, while none of the control behaviors reached significance. The regression reflected this pattern, strongly supporting the idea that leadership behavior tends to be more flexible and less control oriented in innovative cultures. They also indicate that bureaucratic and innovative cultures are conceptually antithetical.

Thus far, the results for bureaucratic and innovative cultures supported Quinn’s (1988) model. However, for supportive culture, the results diverged from theory, with the correlations for control behavior being significantly higher than those for flexible behavior. These results do not coincide with the idea that supportive-style leadership is more flexible than control-oriented leadership. The regression for supportive culture also did not support the idea that supportive leadership is flexible, as the variable having the largest effect was the control-oriented producer, which is inconsistent with the Human Relations Model (developing human resources) and more in harmony with the Rational Goal Model (maximizing outputs). A possible explanation of this could be that organizations with supportive culture might balance their efforts in human resource development by placing more stress on production in order to remain competitive.

Organizational socialization and leadership
For the comparison between leader behaviors and the socialization content domains, seven of the eight leader behaviors had strong, significant, positive correlations with training, suggesting that all leader behaviors (except the innovator) are concerned with training. These results could mean that Innovators focus more on hiring people for their creativity, and thus do not offer much in-company training. The regression clarified this by showing that the control-oriented monitor had the largest effect, which is logical since the monitor’s role is to scrutinize an organization’s internal workings and hence should note any training needs.

For understanding, all leadership behaviors (except the Innovator) yielded significant correlations. As with Training, the four control-oriented leader behaviors were all highly significant and positive. In the regression for understanding, only two leader behaviors entered, i.e. the director and coordinator, and both are control-oriented. A possible explanation could be that these two leader roles need to ensure employee understanding in order to resolve problems and maintain the
workflow. The results did not support the human relations part of Quinn’s (1988) model because the leader roles were control-oriented.

The results for coworker support were similar to those for understanding, in that the control-oriented leader behaviors all had significant, positive correlations, while none of the flexible behaviors were significant. The regression did not yield much explained variance. Two factors might explain these findings. First, coworker support refers to the assistance provided by other workers, rather than by management, which could explain the low overall effect for the leader behaviors. Second, the high correlations for the control behaviors might reflect a societal influence, i.e. Chinese organizations are control focused. For this latter possibility, Redding (1993) identified underlying cultural factors related to the preference for control in Chinese organizations, while other writers have identified Chinese leaders’ control of rewards (Aryee and Chen, 2006), the nature and diversity of controls used by Chinese management (Efferin and Hopper, 2007), as well as the far-reaching extent of control in Chinese society (Xu, 1994). In either of the two possible explanations, these results are not consistent with the human relations part of Quinn’s (1988) model, since no flexible leader behaviors were associated with coworker support.

For future prospects, the pattern was the opposite of that for coworker support. All correlations with flexible leader behaviors were highly significant and positive, while none of the control-oriented behaviors reached significance. The regression revealed three leader behaviors in the equation; two were flexible, and one (entering negatively) was a control behavior. As the innovator yielded the greatest effect, the results suggest that employees see innovative behaviors by their leaders as strongly associated with possible promotions and rewards. This outcome was somewhat consistent with Quinn’s (1988) model because leaders need to be flexible (and innovative) when offering rewards and promotions.

Organizational socialization and organizational culture

Bureaucratic culture had highly significant correlations with all four socialization domains; the only anomaly being the negative correlation for future prospects. In the regression, training and understanding did not enter, while coworker support entered positively, and future prospects negatively. These results suggest that employees tend to perceive coworkers as somewhat helpful in bureaucratic culture, but that opportunities for advancement are seen as unlikely. For the former, perhaps employees in such cultures try to overcome the feeling of isolation by seeking out and endeavoring to provide interpersonal support. For the latter, the perception that bonuses and rewards are lacking seems to reflect the relatively toilsome nature of work that characterizes bureaucracy.

Innovative culture had the opposite pattern. The socialization variables with significant correlations were training (strongly negative) and future prospects (strongly positive). The regression confirmed these relationships, and supported the finding for innovative leadership and training, i.e. that innovative leaders prefer to hire workers who already possess certain skills rather than to expend time and effort in training new workers. The strong effect for future prospects could mean that rewards are a salient aspect of innovative culture, wherein the creation of a successful product could yield immense financial rewards to an employee.
The relation between supportive culture and socialization revealed a pattern similar to that for bureaucratic culture. Training, understanding, and coworker support all had highly significant, positive correlations, while future prospects was not significant. The regression indicated that training and coworker support were perceived as generally available, but that opportunities for advancement were less likely. These results might indicate that differential salaries and promotions in a culture where equality is valued could engender interpersonal competition (for those rewards), which would be antithetical to the camaraderie that characterizes supportive cultures.

Conclusions and implications

This study confirmed that leadership behaviors and the domains of organizational socialization are related to, and predictors of, organizational culture; findings that have implications for both management and research. Overall, across organizations, as employees perceived their leaders to be more control oriented, managers might need to use more flexible leader behaviors. This is especially so in bureaucratic and (surprisingly) supportive cultures. For bureaucratic culture, the results suggest a need for more opportunities for advancement. For supportive culture, the strong effects for control-oriented behavior were inconsistent with its general stereotype as well as with Quinn’s (1988) model of leadership behaviors, results that indicate a need for more incisive research to better understand supportive culture.

Also, the relative absence of control behaviors in innovative culture suggests that leaders in such cultures might need to pay more attention to matters of control. For example, training, which was strongly related to all the control behaviors, was perceived as notably absent from innovative culture. The weak presence of training in innovative culture might mean that innovative leaders could be overlooking the long-term development of their human resources.

For organizational socialization, training had strong positive relations to seven of eight leader roles, and a similar pattern was obtained for understanding, indicating that innovators are not seen as helping employees understand how their organizations work. Surprisingly, coworker support was not related to flexible leadership, but was positively and significantly related to control leadership. For future prospects, the results were reversed, i.e. minimally related to control leadership, but positively and significantly related to flexible leadership. In theory, socialization is very important to the effectiveness of an organization’s employees, and thus all socialization domains should be positively present in every culture. The lack of significant relationships in some cases, however, does not negate the theoretical prescription. Rather, the absence of strong relationships more likely implies that, in actual practice, certain organizations might be failing to emphasize some critical socialization domains.

Finally, this was an initial investigation into how leadership behaviors, organizational socialization, and organizational culture are related, with some surprising relationships revealed in the analyses. In particular, there was a predominance of the control over the flexible leadership behaviors for all types of organizational culture, a result that contradicts most organizational theory. While this pattern was clearly present in the data for this research, future research is needed to determine whether these relationships will recur with different samples and in different parts of the world.
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