

Using the *Organizational Culture Inventory*[®] to Understand the Operating Cultures of Organizations

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--Robert A. Cooke and Janet L. Szumal

The Organizational Culture Inventory (OCI; Cooke & Lafferty, 1987) is a quantitative instrument that measures 12 sets of behavioral norms associated with three general types of organizational cultures: Constructive, Passive/Defensive, and Aggressive/Defensive. Since its introduction, the OCT has been used by thousands of organizations and completed by over 2 million respondents throughout the world. It has been used for a variety of purposes, including to direct, evaluate, and monitor organizational change (e.g., Gaucher & Kratochwill, 1993); identify and transfer the cultures of high-performing units (Human Synergistics, 1986); study and enhance system reliability and safety (Haber, O'Brien, Metlay, & Crouch, 1991); facilitate strategic alliances and mergers (Slowinski, 1992); promote collaborative relations within and

across units (Leeds, 1999); and test hypotheses on the relationships among culture, outcomes, and antecedent variables (Klein, Masi, & Weidner, 1995). This wide range of applications has produced an extensive information base regarding the ways in which culture operates in different types of organizations.

In this chapter, we briefly describe the OCI, its underlying conceptual framework, and the behavioral norms it measures. We then propose a theoretical model of "how culture works" based on findings reported in previous studies, along with the results of new analyses of OCT data. These findings and results illustrate how the behavioral norms measured by the inventory are related to individual-, group-, and system-level criteria of effectiveness, as well as to antecedent variables (which can serve as levers for cultural

change). The theoretical model also explains why the operating cultures of organizations are often inconsistent with their missions and the espoused values of members, and why culture is not always related to effectiveness in the manner expected.

THE ORGANIZATIONAL CULTURE INVENTORY

The OCT assesses 12 sets of norms that describe the thinking and behavioral styles that might be implicitly or explicitly required for people to "fit in" and "meet expectations" in an organization or organizational subunit. These behavioral norms specify the ways in which all members of an organization—or at least those in similar positions or organizational locations—are expected to approach their work and interact with one another.

Conceptual Framework

The behavioral norms measured by the OCT are defined by two underlying dimensions, the first of which distinguishes between a *concern for people* and a *concern for task*. The second dimension distinguishes between expectations for behaviors directed toward fulfilling higher-order *satisfaction* needs and those directed toward protecting and maintaining lower-order *security* needs. Based on these dimensions, the 12 sets of norms measured by the OCT are categorized into three general "clusters" or types of organizational cultures, which are labeled Constructive, Passive/Defensive, and Aggressive/Defensive. Empirical support for these clusters, and therefore the construct validity of the inventory, has been provided by the results of principal-components analyses presented elsewhere (e.g., Cooke & Rousseau, 1988; Cooke & Szumal, 1993; Xenikou & Fumham, 1996).

The 12 behavioral norms measured by the OCT are described in Figure 9.1. Constructive

cultures, which are characterized by norms for Achievement, Self-Actualizing, Humanistic-Encouraging, and Affiliative behaviors, encourage members to interact with *people* and approach *tasks* in ways that will help them to meet their higher-order *satisfaction* needs. Passive/Defensive cultures, characterized by Approval, Conventional, Dependent, and Avoidance norms, encourage or implicitly require members to interact with *people* in ways that will not threaten their own personal *security*. Aggressive/Defensive cultures encompassing Oppositional, Power, Competitive, and Perfectionistic norms, encourage or drive members to approach *tasks* in forceful ways to protect their status and *security*.

The OCI Circumplex

Respondents' OCT scale scores are plotted on a circumplex (see Figure 9.2), a circular diagram on which the distances between the behavioral norms reflect their degree of similarity and correlation (Guttman, 1954). Behavioral norms on the right-hand side of the OCT circumplex reflect expectations for behaviors that are people oriented; those on the left-hand side reflect expectations for behavior that are relatively task oriented. Norms toward the top of the circumplex promote behaviors that are directed toward the fulfillment of higher-order satisfaction needs; those near the bottom promote behaviors directed toward the fulfillment of lower-order security needs.

The statistically normed OCT circumplex allows members of an organization to compare their results to those of others who have completed the inventory. The bold center ring in the circumplex reflects the median score for each of the 12 styles. More specifically, the concentric circles (from the center of the circumplex outward) represent the 10th, 25th, 50th, 75th, 90th, and 99th percentiles, or progressively stronger norms along each of the 12 styles.

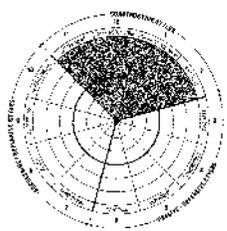
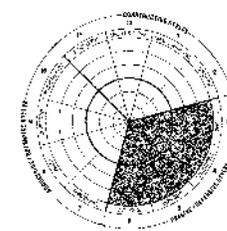
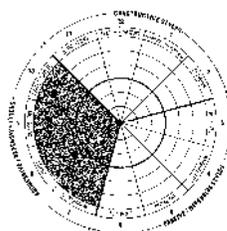
<p>Constructive Cultures</p> 	<p>Achievement norms (11): Members are expected to set challenging but realistic goals, establish plans to reach those goals, and pursue them with enthusiasm</p> <p>Self-Actualizing norms (12): Members are expected to enjoy their work, develop themselves, and take on new and interesting tasks.</p> <p>Humanistic-Encouraging norms (1): Members are expected to be supportive, constructive, and open to influence in their dealings with one another.</p> <p>Affiliative norms (2): Members are expected to be friendly, cooperative, and sensitive to the satisfaction of their work group.</p>
<p>Passive/Defensive Cultures</p> 	<p>Approval norms (3): Members are expected to agree with, gain the approval of, and be liked by others.</p> <p>Conventional norms (4): Members are expected to conform, follow the rules, and make a good impression.</p> <p>Dependent norms (5): Members are expected to do what they're told and clear all decisions with superiors.</p> <p>Avoidance norms (6): Members are expected to shift responsibilities to others and avoid any possibility of being blamed for a problem.</p>
<p>Aggressive/Defensive Cultures</p> 	<p>Oppositional norms (7): Members are expected to be critical, oppose ideas of others, and make safe (but ineffectual) decisions.</p> <p>Power norms (8): Members are expected to take charge, control subordinates, and yield to the demands of superiors.</p> <p>Competitive norms (9): Members are expected to operate in a "win-lose" framework, outperform others, and work against (rather than with) their peers.</p> <p>Perfectionistic norms (10): Members are expected to appear competent, keep track of everything, and work long hours to attain narrowly-defined objectives.</p>

Figure 9.1. Descriptions of the Behavioral Norms Measured by the Organizational Culture Inventory
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Ideal Versus Current Cultures

Beyond assessing the current operating cultures of organizations, the OCT is used also to identify the ideal cultures for organizations and subunits. A parallel form of the inventory, the OCI-Ideal, asks respondents to consider the extent to which members *ideally* should be expected to exhibit the 12 behav

ioral styles to maximize individual motivation and organizational performance (Cooke & Lafferty, 1994).

The ideal profiles generated by members of organizations usually emphasize a preference for Constructive behaviors. For example, the ideal profiles for organizations in the United States, Australia, Canada, New Zealand, and the United Kingdom typically show strong expectations for Constructive behaviors, moderate to weak expectations for Ag-

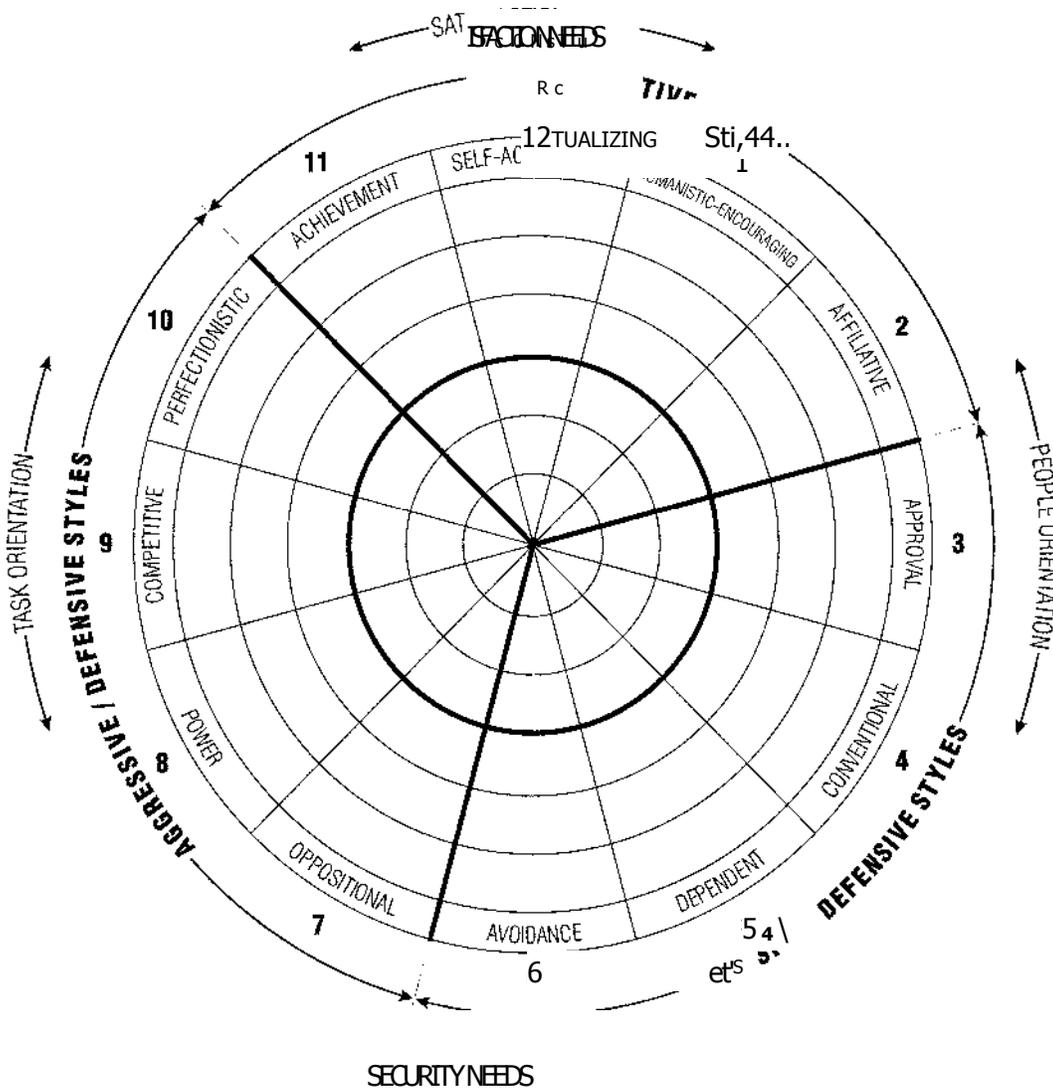


Figure 9.2. The OCT Circumplex
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gressive/Defensive behaviors, and weak expectations for Passive/Defensive behaviors. Ideal profiles for organizations in countries outside the Anglo cluster (e.g., Latin Europe, Latin America, and the Far East) also tend to be characterized by strong expectations for Constructive behaviors; however, expectations for some of the Defensive styles tend to be pronounced as well.

Similarly, differences across industries—and across organizations with different environments and technologies—can be observed, but such differences are much smaller than those who embrace "contingency" the-

ones of culture might predict. For example, researchers studying "reliability-oriented" systems, such as nuclear aircraft carriers, have questioned whether those organizations "would function as well under cultural features found in other [performance-oriented] organizations" (Roberts, Rousseau, & La Porte, 1994, p. 158). However, OCT-Ideal surveys administered in nuclear power plants, chemical and oil refineries, and reliability-oriented military units consistently produce ideal culture profiles that are predominantly Constructive. Similarly, research findings indicate that reliability-oriented sys-

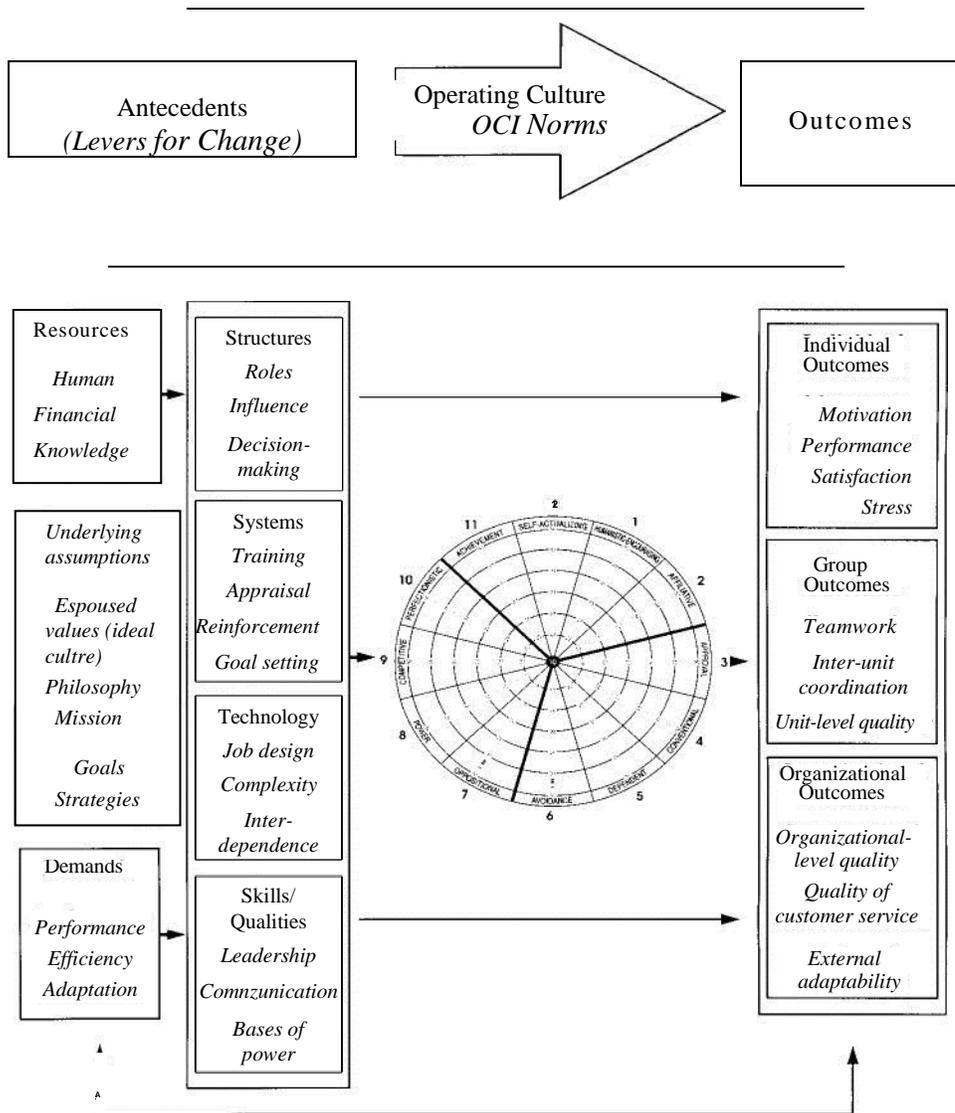


Figure 9.3 Theoretical Model: How Culture Works
 SOURCE: Reprinted by peithission. Copyright © 1987 held by R.A. Cooke (model) and Human Synergetics, Inc. (circumplex).

tems (e.g., nuclear power plants) with Constructive norms perform better under emergency conditions than do those with more Defensive norms (Shurberg & Haber, 1992).

More generally, responses to the OCT-Ideal are based in part on societal values and beliefs regarding how things work and the types of behaviors likely to lead to individual and organizational effectiveness. Given the relatively strong individualistic, weak uncer

tainty avoidance, and moderate power distance societal values (Hofstede; 1980a), respondents in the United States strongly endorse Constructive norms as those most likely to promote performance—regardless of the types of organizations they are describing. Similarly, the emphasis on certain Defensive norms found in the ideal profiles generated for organizations in Latin European, Latin American, and Far East Asian countries

likely reflect their stronger collectivistic, power distance, and/or uncertainty avoidance values (Hofstede, 1980a).

THEORETICAL MODEL: HOW CULTURE WORKS

Although the operating cultures of organizations have been viewed as a direct function of the assumptions and values shared by members and, in turn, as important determinants of individual and organizational performance, research with the OCT suggests a more complex picture of how culture really works (see Figure 9.3). First, the model proposes a disconnect between underlying assumptions and espoused values on the one hand and operating cultures in terms of behavioral norms and expectations on the other. This disconnect is due to the direct influence of structures, systems, technology, and skills/qualities—which do not necessarily reflect underlying assumptions and values—on the operating cultures of organizations.

Second, the model proposes a relation between culture and outcomes consistent with, for example, the work of Kotter and Heskett (1992). Their description of the effects of adaptive versus nonadaptive cultures on organizational performance, problem solving, enthusiasm, and innovation suggests that Constructive (as opposed to Defensive) norms should lead to effectiveness. Our model, however, shows that a number of other factors are causally related to outcomes—and these factors can suppress or counteract the effects of cultural norms.

Finally, the model displayed in Figure 9.3 proposes that organizational resources and environmental demands play an important role in explaining inconsistencies among values and philosophies, operating cultures, and organizational effectiveness. Resources and demands account for the misattributions often made when organizations with dysfunctional cultures appear to be successful. They also

explain why attempts to overcome or bypass the negative effects of a Defensive culture (through the use of structures, systems, and technology to control members' behaviors directly) may appear to be effective—at least temporarily along certain criteria of effectiveness.

THE CULTURE DISCONNECT

Conceptual models of organizational culture (e.g., Schein, 1981; Trompenaars & Hampden-Turner, 1998) suggest that the more salient aspects of culture (as measured by the OCI) should reflect, and be shaped by, the more fundamental aspects of culture, such as the underlying assumptions and values shared by members (reflected in responses to the OCT-Ideal). Consistent with these models, our perspective on "how culture works" shows that the assumptions held by members (internalized or unrecognized beliefs and values) and their espoused values (what they say is important) influence the mission and philosophy of their organization and its strategies and goals. However, in contrast to other models, our perspective is that values, missions, goals, and strategies have only marginal impacts on the operating cultures of many organizations.

The disconnect between values and mission on the one hand and norms and expectations on the other is illustrated by data collected from approximately 90 organizational units. The managers of these units were asked about the clarity and strength of their organizations' values, philosophies, and missions; their subordinates were asked to complete the OCT. Although the results of correlation analyses suggest that Constructive norms are related to strong philosophies and Defensive norms are related to weak missions, none of the coefficients were significant, and a few were close to zero. Similarly, the same managers were asked about the importance (or

value) their organizations place on specific sets of behaviors corresponding to the Constructive, Passive/Defensive, and Aggressive/Defensive behavioral norms. The correlations between values and norms were in the expected direction, but, again, were not significant.

It is not unusual to see strong Defensive cultural norms operating in organizations with mission statements emphasizing high-quality service, innovation, teamwork, and the growth and development of members and correspondingly Constructive OCI-Ideal profiles. As Lawler (1996) notes, the mission and values statements drafted by top managers are often disregarded by organizational members, as well as by those who wrote the statements. How can the operating cultures of these organizations be so diametrically opposed to the cultures that members deem to be ideal? The reason is that the norms that emerge in many organizations are not a direct function of the values and assumptions of leaders and founders, but rather are determined by the organizational conditions and realities that members face on a day-to-day basis.

THE IMPACTS OF STRUCTURES, SYSTEMS, TECHNOLOGY, AND SKILLS/QUALITIES ON OPERATING CULTURES

The behavioral norms that emerge in organizations are products of members' collective learning regarding what it takes to get things done and succeed—or to stay out of trouble and survive—in the system. In discerning what behaviors are appropriate, members may react cautiously or even skeptically to mission statements, change programs, and what managers "say" they want. Instead, they infer what is expected on the basis of cues or signals from the forces they face on a daily basis. These forces—which include structures, systems, technologies, and skills/qualities—

may or may not be consistent with the more fundamental aspects of the organization's culture. Nevertheless, they determine whether members come to believe that they should behave in Constructive versus Defensive ways and shape the true operating culture of the organization (as shown in Figure 9.3). We describe below the ways in which these factors shape and reinforce behavioral norms, basing our discussion on analyses of data from the OCI, manager interviews, and other sources. These other sources include the Organizational Effectiveness Inventory (Cooke, 1997), a survey that measures outcomes of culture as well as potential levers for change.

Structures and the OCI Norms

Structure refers to the manner in which components are ordered and coupled to create an organization (Georgopoulos, 1986). Within organizations, structure manifests itself along multiple dimensions, including centralization of authority, hierarchy of influence, and degree of role specification. These dimensions shape the operating culture by making possible or requiring certain types of behaviors and ruling out or making difficult other types of behaviors. Possibly for these reasons, structures have been proposed to constitute a necessary (but not sufficient) lever for culture change (Cummings & Worley, 1998; Miles, 1997b; Nadler, 1998; Nevis, Lancourt, & Vassallo, 1996).

The correlations reported in Table 9.1 illustrate some of the ways in which dimensions of structure are related to behavioral norms. For example, the positive correlation between role specification and Constructive norms suggests that the specification of clear (although not necessarily narrow) roles promotes Constructive behaviors by defining incumbents' responsibilities, reducing uncertainty, and enabling members to take initiative and be proactive. Similarly, the correlation between the amount of influence exercised by members across organizational

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TABLE 9.1 Correlations: Structures, Systems, Technology, and Skills/Qualities as Related to Culture

<i>Antecedents (levers for change)</i>	<i>OCI Norms'</i>		
	<i>Constructive</i>	<i>Passive/ Defensive</i>	<i>Aggressive/ Defensive</i>
<i>Structure</i>			.27***
Role Specification' (n= 358)	.28***	-.00	.06
Total influence" (n = 610 to 611)	.39***	-.10*	.01
Hierarchy of influence" (n = 610 to 611)	-.24***		
Centralization of decision making' (n = 327)	-.18**	.17**	.03
<i>Systems</i>			
Fairness of appraisals' (n = 107)	.61***	-.14	.06
Rewards-use of praise" (n = 466)	.48***	-.23***	-.04
Punishment-use of criticism' (n = 466)	-.24***		.29***
Goal clarity' (n = 515 to 516)	.28***	-.14**	-.06
Goal difficulty" (n= 515 to 516)	.13**	-.13**	-.04
Participation in goal setting' (n = 515 to 516)	.21***		-.25***
<i>Technology</i>			
Job design-autonomy' (n= 466)	.30***		-.29***
Job design-skill variety' (n = 466)	.37***	-.18***	
Job design-task identity' (n= 466)	.22***	.00	.01
Job design-task significance' (n = 466)	.21***	-.10*	-.03
Job design-feedback' (n = 466)	.15**	-.04	-.02
Job complexity-data' (n = 312)	.16**	-.21***	-.05
Job complexity-people' (n= 312)	.22***	-.21***	
Job complexity-things' (n = 312)	.02	-.07	-.11
Interdependence' (n = 156 to 157)	.27**	-.09	.00
<i>Skills/qualities</i>			
Leadership-interaction facilitation' (n = 265)	.51***	-.17**	.07
Leadership-task facilitation' (n = 265)	.43***	-.11	.10
Leadership-goal emphasis' (n = 265)	.48***	-.21***	.00
Leadership _ consideration' (n = 155)	.47***	-.13	-.06
Bases of power-organizational ^a (n = 156 to 157)	.10		.24**
Bases of power-personal ^a (n = 156 to 157)	.53***	-.22**	-.13

a. Based on employees' reports (aggregated to the unit level).
 b. Based on managers' reports.
 c. Based on data from the U.S. Department of Labor (1991).
 *p < .05; **p < .01; ***p < .001.

levels (i.e., total influence as defined by Tannenbaum, 1968) and Constructive norms suggest that expectations for proactive and positive behaviors are strong when members at all levels of the organizational hierarchy exercise influence.

On the other hand, hierarchy of influence (estimated by computing the difference between the influence of members at the bottom of the organization and the influence of those at the top) is negatively related to Constructive norms and positively related to both sets of Defensive norms. Centralized decision-making structures are also negatively correlated with Constructive norms and positively correlated with Passive/Defensive norms. Such structures serve as a constant reminder to members of the need to follow rules and directives while suppressing opportunities to approach their work and interact with others in self-fulfilling ways. More generally, organizational structures (which may or may not reflect shared values) shape the operating culture by influencing the behaviors that members come to believe are necessary and appropriate.

Systems and the OCI Norms

Systems refer to the interrelated sets of procedures—such as human resource, information, accounting, environmental scanning, and quality-control systems—an organization uses to support its core activities and to solve problems. Organizational systems, particularly those for human resource management, have been proposed by others to be a potentially powerful lever for shaping and changing the culture of an organization (Allen, 1985; Schein, 1983; Sethia & Von Glinow, 1985; Ulrich, 1997). More generally, research with the OCT indicates that human resource systems, simply by virtue of their design and implementation, have impacts on norms and expectations that go beyond the specific behaviors these systems are designed to reinforce.

For example, the perceived fairness of performance appraisals is positively correlated with Constructive norms (see Table 9.1). Simi-

larly, the use of praise for good work is positively correlated with Constructive norms and negatively correlated with Passive/Defensive norms. In contrast, the use of criticism when mistakes are made is negatively related to Constructive norms and promotes self-protective (both Passive/Defensive and Aggressive/Defensive) norms.

The degree of member participation in the setting of job-level goals is also positively associated with Constructive norms and negatively associated with both Passive/Defensive and Aggressive/Defensive norms. Systems that produce clear goals are positively associated with Constructive norms and negatively associated with Passive/Defensive norms. Finally, reasonably challenging goals are related to the strength of Constructive norms; goals that are too easy or too difficult to achieve are related to Passive/Defensive norms. Thus, although the foci of organizational systems can direct members' attention and behavior, such systems implicitly shape organizational culture simply as a function of their design and implementation.

Technology and the OCI Norms

The methods by which an organization transforms inputs into outputs also shape behavioral norms and expectations. The impact of technology on culture was first suggested by Trist and Bamforth's (1951) classic study of coal miners, which describes how a change in technology led to a new set of norms. Later, Hackman and Oldham (1980) diagnosed technology at the job level and identified a set of core job characteristics causally related to outcomes such as work motivation and performance. These same core characteristics, as well as other dimensions of job design, shape individual normative beliefs and shared behavioral expectations, particularly when members of an organizational unit are performing similar jobs.

Jobs that provide high levels of autonomy, skill variety, task identity, task significance, and feedback are positively associated with

Constructive norms (see Table 9.1, which presents results for those units in which members held the same or similar jobs). Conversely, jobs that lack autonomy and skill variety are associated with both sets of Defensive norms, and those that have little significance in terms of their impact on people are associated with Passive/Defensive norms.

Similarly, job complexity with respect to working with data is positively associated with Constructive norms and negatively associated with Passive/Defensive norms. The complexity of jobs with respect to working with people is related positively to Constructive norms and negatively to both sets of Defensive norms. More generally, jobs that are simple and routine implicitly establish norms for compliant and "detached" behaviors and suppress expectations for achievement, growth, and collaboration.

Finally, the degree of interdependence among members is positively associated with Constructive norms. When interdependencies are sequential or reciprocal, the job performance of incumbents is contingent not only on the performance of others but also on their ability to coordinate their activities. Thus technologies based on teams, self-regulating work groups, and sociotechnical approaches appear to require, and are likely to promulgate and reinforce, Constructive operating cultures.

Skills/Qualities and the OCI Norms

The skills and qualities of organizational members, particularly those who hold leadership roles, can shape, reinforce, and change the culture of an organization or subunit (Allen, 1985; Human Synergistics, 1986; Kotter & Heskett, 1992; Nevis et al., 1996; Schein, 1983). Because of their position in the organizational hierarchy, managers tend to be viewed by other members as role models—whether or not they exemplify their espoused values or the philosophy of the organization. Additionally, the leadership behaviors of managers—which reflect their interpersonal

and organizational skills—can shape the culture by constraining or facilitating members' work activities and interactions with others.

For example, leadership styles that emphasize interaction and open communication among employees (interaction facilitation) and the achievement of goals (goal emphasis) are positively associated with Constructive norms and negatively associated with Passive/Defensive norms (see the bottom of Table 9.1). Leaders who demonstrate concern for employees (supportiveness) and help them identify ways to solve problems and complete their assignments (task facilitation) are also more likely to promote Constructive cultures than are leaders who do not demonstrate these styles. Similarly, reliance on organizational bases of power (legitimate, reward, and coercive power) is positively associated with Defensive norms. Conversely, reliance on personal bases of power (expert and referent power) is positively associated with Constructive norms and negatively associated with Passive/Defensive norms.

More generally, the skills and qualities of members at all levels can influence an organization's operating culture and the subcultures of its units. Constructive norms are likely to emerge when members' interpersonal and communication skills are well developed and when their behaviors exemplify these skills. Conversely, when members lack the skills and qualities needed to perform their jobs, they tend to approach others in Defensive ways (Szumal, 1998), increase the security needs of those around them, and inadvertently establish norms for, and patterns of, Defensive behavior.

THE IMPACT OF OPERATING CULTURE ON OUTCOMES

Although organizational outcomes are influenced by myriad factors, the OCT norms are expected to have effects that are discernible

and significant. Specifically, strong norms for Constructive behaviors should lead to desirable outcomes (e.g., individual motivation, performance, job satisfaction, teamwork, quality of work relations, and quality of customer service) and should minimize undesirable outcomes (e.g., social loafing and stress). Conversely, expectations for Defensive behaviors, particularly those that are Passive, should have the opposite impact, according to our model of how culture works. The findings reported by others, along with analyses carried out on the previously mentioned OCT data set (which also contains manager interview and Organizational Effectiveness Inventory data), illustrate the relationships between norms and various effectiveness criteria.

The OCI Norms and Individual Outcomes

As shown in Table 9.2, Constructive norms are positively associated with members' reports regarding motivation and job satisfaction and managers' reports of the percentage of their employees demonstrating high levels of performance. Constructive norms are also negatively related to members' reports of stress and managers' reports of the percentage of employees who engage in social loafing. Conversely, expectations for Passive/Defensive behaviors are negatively associated with employee motivation and job satisfaction and are positively associated with employee stress and the percentage of employees who engage in social loafing and put forth little effort. Finally, Aggressive/Defensive norms are negatively correlated with employee job satisfaction and positively correlated with stress.

The results reported in Table 9.2 are based on correlations conducted on unit-level data; that is, the responses of individual members were aggregated to the unit level prior to analysis. Similar findings, however, have been reported at the individual level with respect to the rela-

tionship between culture and stress (van der Velde & Class, 1995) and that between culture and member satisfaction (Haley, 1998; Klein, Bigley, & Roberts, 1995; McDaniel & Stumpf, 1995; Rousseau, 1990c).

Additional insight into the impact of operating cultures on employees is provided by other studies incorporating the OCT. For example, Haley (1998) found that Constructive norms were positively associated with *affective* commitment (that is, commitment based on emotional attachment to the organization). On the other hand, Lahiry (1994) found that Defensive norms (particularly Passive/Defensive) were positively related to *continuance* commitment (that is, when people stay with their organizations because they feel that the costs of leaving are relatively great). Finally, Weidner (1997) has shown a positive relationship between Constructive norms and the trust of hospital personnel in their supervisors and the organization.

The OCI Norms and Group Outcomes

Our analyses (Table 9.2) show that Constructive norms are positively associated with employees' reports regarding teamwork and unit-level quality and with managers' reports of the quality of work relations among employees. In contrast, Defensive norms have a detrimental effect on employees' ability to work together, as reflected in both their own perceptions of teamwork and their managers' reports regarding the quality of work relations.

The link between the OCT norms and these group outcomes is probably neither direct nor simple; instead, it is likely that other factors are involved and operate as intervening or causally prior variables. For example, other variables that have been found to be associated with the OCT norms—including communication self-efficacy (Leeds, 1999), conflict resolution styles (Keenan, Cooke, & Hillis, 1998), and group cohesion (Hsieh, 1998)—potentially are causally related to

TABLE 9.2 Correlations Between Culture and Outcomes			
Outcomes	OCI Norms ^a		
	Constructive	Passive/ Defensive	Aggressive/ Defensive
<i>Individual outcomes</i>			
Motivation' (n = 409 to 410)	.56***	-.33***	-.08
Social loafing ^b (n=446)	-.23***	.18***	.04
High performance ^b (n = 352)	.17**	-.08	.02
Job satisfaction' (n = 606 to 607)	.60***	-.32***	-.13**
Stress' (n = 314 to 315)	-.25***	.21***	
<i>Group outcomes</i>			
Teamwork' (n = 598 to 599)	.44***	-.25***	
Quality of work relations ^b (n = 447)	.20***	-.16***	
Unit-level quality' (n = 107)	.59***	-.13	.11
<i>Organizational outcomes</i>			
Quality of customer service' (n = 369)	.58***	-.19***	.07

a. Based on employees' reports (aggregated to the unit level).
b. Based on managers' reports.
p < .05; *p < .01; ****p < .001.

outcomes such as teamwork and quality of work performed.

The OCI Norms and Organizational Outcomes

Quality of customer service is one of the most important and most commonly measured outcomes in studies of organizational culture. As shown at the bottom of Table 9.2, quality of service (measured on the basis of members' perceptions) is positively related to the strength of Constructive norms and inversely related to Passive/Defensive norms. These findings are consistent with those of A.S. Klein et al. (1995), whose analyses suggest that this relationship is further explained by employees' perceptions of control.

Quality of customer service has been considered in a number of cultural analyses of health care organizations (e.g., Haley,

1998; Kosmoski-Goepfert, 1994; Shortell et al., 1991). Haley's (1998) study is particularly interesting in that it included patient satisfaction data and other quality indicators (e.g., "untoward events" such as medication error rates and patient falls). Consistent with Haley's hypotheses, patient satisfaction was positively related to Humanistic (Constructive) norms and negatively related to Dependent (Passive/Defensive) norms. In contrast, rates of medication errors and patient falls appeared to be higher in units with Constructive cultures and lower in units with Defensive cultures. Based on qualitative data collected on the units and previous research on the discrepancies between the number of untoward events that *actually occur* in hospitals and the number that are *reported*, Haley proposes that Constructive norms encourage and permit nurses to report problems; in contrast, Defensive norms may impede the re-

porting of errors by forcing members to look good and to please those in positions of authority.

Beyond quality of service, cross-sectional studies on culture have considered a number of other organizational-level outcomes. A reanalysis of OCT data on supermarkets (Human Synergistics, 1986) found that Achievement (Constructive) norms were positively related to sales per square foot of selling space as well as to subjective measures of store effectiveness. Klein (1992) found a significant relationship between the Constructive norms and sales growth in a study of apparel stores. Thornbury's (1994) study of 17 units of four European companies showed that effectiveness in dealing with change was positively related to Constructive norms and negatively related to Passive/Defensive norms. Rousseau's (1990c) study of multiple units of a large fund-raising organization demonstrated that Passive/Defensive norms were negatively related to the generation of revenues.

Evidence that the norms measured by the OCT are causally related to performance is provided by cultural change programs that have been evaluated longitudinally (Dale, 1997; Human Synergistics/New Zealand, 1998; "IBM Division Reborn," 1998; Sarkis, Sanders & Pattillo, 1992; United Auto Workers, 1990). Such programs were designed to bring about cultural change and performance improvements by means of interventions directed at systems, structures, technologies, and/or skills. These case studies, although not based on controlled experimental designs, lend support to the notion that culture has an impact on effectiveness.

THE EFFECTS OF RESOURCES AND DEMANDS ON HOW CULTURE REALLY WORKS

Although culture likely has an impact on effectiveness, our experiences with using the OCI, along with the observations of others (e.g., Kotter & Heskett, 1992; Nadler, 1998), suggest

suggest that the success of an organization can also affect all the other variables in our model and create inconsistencies between the different levels of culture and between culture and outcomes. Specifically, our model of how culture works is reinforced by two critical sets of variables: *resources* and *demands*. The variables in the first set, which are partly based on the organization's historical performance or effectiveness, include financial reserves, members' technical expertise, and patents and copyrights, as well as more tangible resources. The variables in the second set include demands for performance, efficiency, adaptation, and change. These demands emanate from various sectors of the environment (including customers, suppliers, competitors, and shareholders, as well as the local community and larger society) and, like resources, partly result from the organization's prior effectiveness and impact on its environment.

As shown in Figure 9.3, resources and demands influence outcomes at the individual, group, and organizational levels both directly and indirectly. Holding other factors constant, the magnitude of an organization's resources has a direct and positive impact on such outcomes, whereas the magnitude of the demands placed on it has a negative impact. Organizations with vast resources and little or no competition are simply in an advantageous position to grow and prosper relative to those that have limited resources and are operating in highly competitive and demanding environments. At the same time, resources and demands can influence structures, systems, technologies, and skills/qualities and, in turn, shape the organization's operating culture. Culture disconnects (discussed earlier) occur when these factors are more influential in shaping systems and related antecedents than are the espoused values of members or the organization's mission or philosophy.

More generally, the direct and indirect effects of resources and demands on outcomes explain why a subset of organizations with Defensive cultures nevertheless appear to be

relatively effective. We discuss these dynamics below in terms of the defensive misattribution of success and the culture bypass.

The Defensive Misattribution of Success

Resources and demands, particularly when the former are substantial and the latter are minimal, can have a greater bearing than cultural norms on the short-term performance of an organization. Organizations that enjoy strong franchises, munificent environments, extensive patents and copyrights, and/or massive financial resources are likely to perform quite adequately, at least in the short term and possible even over the long term, if environmental pressures for innovation, adaptation, or flexibility remain minimal.

However, the indirect effects of resources and demands on outcomes are not always consistent with the direct effects, particularly when managers lose sight of important core values and/or the factors that led to the organization's success in the first place. Although an abundance of assets and a nonthreatening environment can make it "easy" for an organization to perform effectively, these same factors provide members with slack resources and obliterate accountability and feedback on the true impacts they are having on the organization (Zoltners, Sinha, & Murphy, 1997). Managers can "get away" with implementing ineffective systems, designing organizational silos and unwieldy hierarchical structures, introducing technologies that destroy motivation, and providing leadership based on questionable skills (Nadler, 1998)—and, in the process, creating an Aggressive and/or Passive organizational culture.

This dynamic is further complicated by managers' tendencies to assume that the organization is functioning well, that resources and environment conditions will not change, and that current successes will continue. In such situations, it is particularly difficult to gain managers' acceptance of, or

support for, the need for cultural change. Although they accept their Defensive OCT cultural profiles, attribution theory and self-serving biases (Levy, 1993) almost assure that they will attribute successes to themselves and failures to external factors. Because they created the dysfunctional culture (or inadvertently allowed it to emerge), they credit it as being the source of the organization's effectiveness. Systems thinking, however, would reveal that their effectiveness is a function of a complex array of factors. Although the impact of culture may be overshadowed by the impacts of resources and demands, Constructive norms would nevertheless enhance the performance of these organizations, increase their adaptability, and protect them from being blindsided by forceful and unanticipated environmental changes.

The Culture Bypass

The culture bypass is another dynamic that accounts for inconsistencies among values and philosophy, operating culture, and organizational effectiveness. Certain organizations adopt strategies for their operating units that produce negative cultures but are nevertheless successful—at least in terms of specific criteria of performance. These strategies typically revolve around special resources, proprietary technologies, or standardized products that provide the organization with some type of competitive advantage—often in terms of cost. The technologies implemented, and the structures and systems put into place to support them, are implicitly designed to "bypass" culture or its impact by directly controlling members' behaviors. Unfortunately, many of these substitutes for culture promote norms for Defensive behavior and, ultimately, have negative effects on members and, sometimes, the organization.

The culture bypass can be observed most frequently in organizations that have substantial resources, operate in environments with considerable competitive and other pressures, and have many geographically dispersed units (e.g., branches or stores) that carry out the same or similar activities. Examples of such organizations can be found in the fast-food, banking, and other service (e.g., hotel) industries, where highly efficient technologies for operations at the store or branch level have been developed to maintain control, promote consistency, and reduce the need for a highly skilled or expensive workforce. In terms of our model of culture, the strategy is to emphasize systems, structures, and technologies and to downplay the importance of members' skills and culture with respect to task accomplishment.

For example, to control members' behavior and performance, jobs within culture-bypass organizations are carefully specified and designed to be simple. However, because such jobs inherently lack the core characteristics associated with motivation and satisfaction, centralized structures and systems are needed to reinforce the technology to assure that employees do what is necessary and maintain standards. Although initially intended to bypass culture or to overcome its effects, these systems and structures inevitably lead to the emergence of fairly strong Defensive cultural norms. Beyond affecting employees' behavior and performance, Defensive norms lead to marginal levels of commitment and increased turnover (Cooke & Szumal, 1993). In response, jobs are further simplified to make it easier to replace and train people, which, in a recursive manner, results in even stronger Defensive norms. Although questions might be raised about customer satisfaction and employee growth, culture-bypass organizations often appear to be successful, at least temporarily, from financial and internal business-process perspectives.

Nevertheless, there is reason to believe that the culture-bypass strategy is suboptimal and that Constructive cultural norms could en-

hance the effectiveness of the operating units of these organizations. For example, when stores or outlets within the same firm are considered, research indicates that Constructive norms have a positive impact on outcomes such as job satisfaction, perceived quality of service, and sales growth (Klein, 1992). Further, unpublished case studies based on the OCT have identified markedly strong Constructive cultures in some units of companies that seem to operate on the bypass strategy. Without exception, these units performed above average if not exceptionally in terms of sales, employee satisfaction and retention, and perceptions regarding customer service.

CONCLUSIONS

Our model of how culture works, in consideration of organizational resources and demands, requires further testing and possible elaboration. Particularly useful would be multivariate studies across industries permitting analyses of the potentially contradictory direct and indirect effects of resources and demands on effectiveness. Additional studies within industries (and across multiple units within single organizations) would also be useful in that they control, to an extent, for factors such as resources and demands. There is also a need for this type of research across countries. We have noted that the societal norms prevailing in certain countries lead to more Defensive OCT ideal profiles. This finding raises questions regarding the impact of Constructive and Defensive norms on the effectiveness of organizations in Southeast Asian, South American, and Latin American countries. Finally, action research studies based on quasi-experimental designs with control groups (subunits, stores, departments) would provide important information on the effects of cultural change programs on behavioral norms and outcome variables.

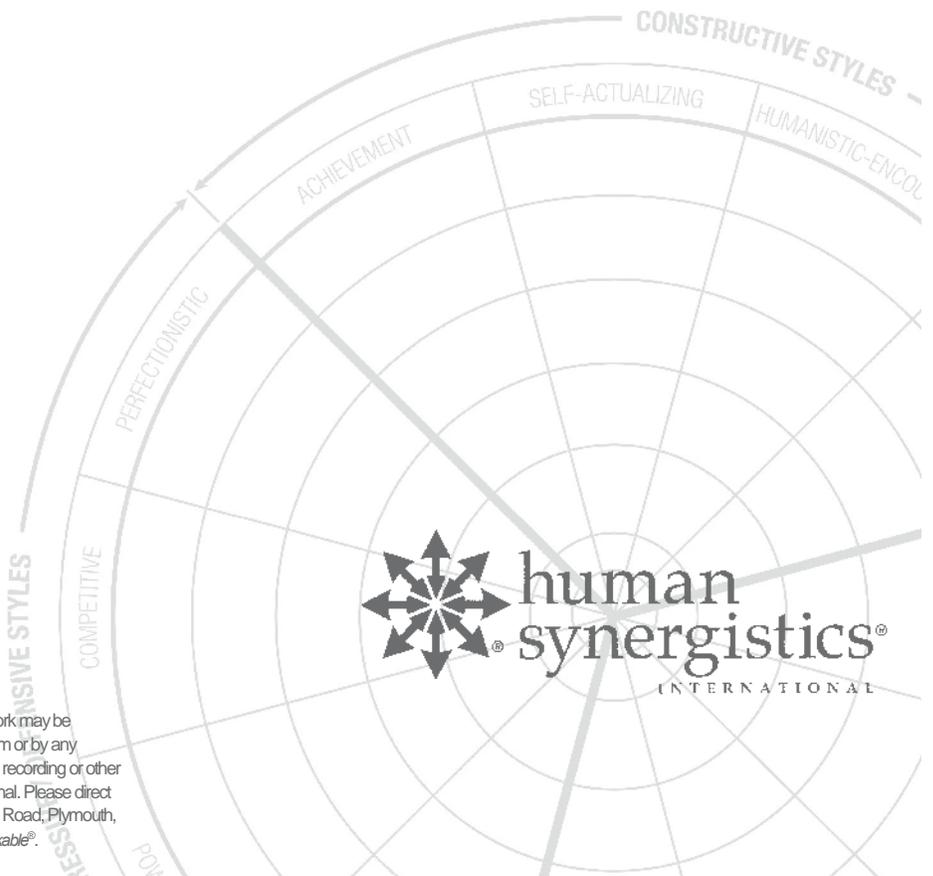
The culture disconnect, the defensive misattribution of success, and the culture bypass highlight the importance of alignment, systems thinking, and organizational learning to cultural change. The frequency with which we have observed cultural disconnects suggests that many organizations need to bring their missions and goals into alignment with shared values and assumptions, and then make appropriate changes or improvements in systems, structures, technologies, and skills of members. Operating cultures are molded on a day-to-day basis, thus strategically directing a culture requires not only the clarification of visions and values but also the identification of indirect (and otherwise unanticipated) consequences of

changes in technologies, structures, and systems. In turn, organizational learning and similar interventions designed to enhance systems and critical thinking (Argyris, 1982; Senge, 1990) may be prerequisite to cultural change in many organizations. Ironically, organizational learning and systems analysis are inconsistent with the Passive/Defensive and Aggressive/Defensive norms prevailing in those organizations most in need of cultural change. Thus quantitative data that clearly portray the direction of an organization's culture and its impact on effectiveness are needed to reveal the inadequacies of current strategies and to motivate learning at the individual, group, and organizational levels.

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