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Friendship Patterns and Culture: The Control of Organizational Diversity

Organizational culture is often described as a management control device, but this view obscures the importance of informal social interactions for the emergence and modification of culture. We elicited seven cultural dimensions used by employees to predict and make sense of the behavior patterns of others in an entrepreneurial firm. Forty-seven key employees rated each other on these dimensions. Consistent with predictions, friends, relative to nonfriends, made similar attributions about fellow employees across the seven dimensions. The pattern of results remained significant even controlling for demographic and positional similarities. Further, the more people disagreed with their friends, the more they tended to be dissatisfied with their jobs. The control of organizational diversity may be as much an interpersonal initiative as it is a prerogative of management manipulation.

HOW DO PEOPLE WITH DIVERSE BACKGROUNDS, GOALS, AND VALUES successfully coordinate their activities in organizations? What enables people in organizations to plan their own productive efforts in concert with their fellow workers? The usual answer to this question in the organizational-culture literature is that cooperative behavior is elicited through the rigorous socialization of new members to a set of managerially determined social norms. This managerial view treats the culture of an organization as an independent variable that can be manipulated to control deviant behavior (e.g., Ouchi 1980; for a critique see Barley, Meyer, and Gash 1988). From this culture-as-a-managerial-tool perspective, an effective organization is like a clan, in that it relies on mechanical solidarity—a religious adherence to common beliefs and practices—to ensure cooperation (Durkheim 1933:175–178). The clan cannot tolerate any divergence from the “totality of belief and sentiments common to all members of the group” (Durkheim 1933:129).

The tradition of industrial anthropology offers a quite different answer to the question of the control of diversity. Starting with the Hawthorne Studies (Roethlisberger and Dickson 1939) and continuing through the applied anthropology movement in organizational behavior, the emphasis is on the importance of informal relations between coworkers (see Baba 1986; Holzberg and Giovannini 1981; and Trice 1985, for reviews). From this perspective, organizational culture is not a cohesive, organization-wide control system implemented by top management, but an emergent property of informal relationships within work groups. Researchers within this tradition have investigated how norms, beliefs, attributions, behaviors, and other aspects of organizational culture are controlled through the informal networks of coworkers. One implication of this literature has been that ignoring cultural variety in the workplace can lead to unanticipated organizational conflict (cf. Stoffle 1975; Whyte 1951).

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Thus we see two different views on organizational culture in the literature. From the culture-as-a-managerial-tool perspective, culture is a unifying force, a normative glue that binds people together (Siehl 1985). Culture as an emergent property of personal relationships suggests a much more fragmented view of culture, with the possibility of competing subcultures existing within the same organization (cf. Gregory 1983). This article builds on both of these perspectives to suggest that institutionalized traditions, set in place by the organization's founders, shape and are shaped by emergent beliefs and actions. Organizational culture, at any point in time, can be expressed as a set of social constructs negotiated between organizational members to anticipate and control the motivational and cognitive diversity in the organization (cf. Wallace 1970:36). These shared constructs allow organizational members to make sense of ongoing organizational activities.

In this article, we treat culture as a cognitive system (as defined by Keesing 1974) that is negotiated between interacting individuals who create what Geertz (1973) has referred to as locally shared systems of meaning. We first describe a method for eliciting the overarching cultural constructs utilized by people in organizations. Second, we look at how the network of informal relationships in the organization patterns the way people use culturally defined constructs. Third, we investigate whether the social network operates to control cognitive diversity in the organization.

The Site

The organization selected as the research site was a small regional distributor called Pacific Distributors Incorporated (PacDis)¹ that employed a total of 162 people at its headquarters and four branch offices. The company had been founded by its current president, John Briggs, but was run on a day-to-day basis by Bob Jamison, who had been with the firm since its inception. Jamison had worked his way up from salesman to chief operating officer.

Both Briggs and Jamison were strong advocates of the importance of good employee relations. Over the past few years, as the organization's success had led to rapid expansion of employees and facilities, Briggs and Jamison had routinely scheduled organizational development interventions designed to improve communications between the different factions in the company. According to the consultants' reports, there was an ongoing ideological struggle between two main groups in the organization. On the one hand, there were those like Bob Jamison, who believed in the primary importance of maintaining good social relations within the organization. On the other hand, there were those like Ralph Gibson, the chief financial officer, who believed that financial control and the bottom line were of paramount importance.

According to the consultants, Jamison spent most of his time dealing with day-to-day coordination problems and had no time to plan long-term strategy. During our talks with Jamison, he referred to the chief financial officer, Gibson, as a "bean counter" and described the consultants' intervention efforts as attempts to persuade people like Gibson to be less rigid and demanding in their treatment of others. Gibson, on the other hand, was concerned with how much the consultants were costing the company. He believed that, since his entry into the organization from a Big Eight accounting firm, much needed attention had been given to financial controls and accountability. According to Gibson, the organization under Jamison's control was in danger of being run too loosely.

Compared to Jamison and Gibson, president Briggs was removed from the everyday running of the organization, but as the founder of PacDis he had been instrumental in establishing the cultural and expressive components of the company (cf. Pettigrew 1979:574). He was a strong believer in the importance of a friendly, open style of management that placed a great deal of trust in each employee. As a result of his guiding influence, the atmosphere at PacDis was noticeably informal. Executives worked with their doors open and jackets off, subordinates were on a first-name basis with executives

and engaged in mutual joking and kidding rituals. Standards of dress varied widely from the casually rumpled to the professionally businesslike.

We conducted a series of structured interviews with a sample of PacDis employees to uncover the emic cultural dimensions that characterize the workplace. This phase was essentially exploratory, designed to elicit a set of constructs used by these employees to organize the diversity of styles and approaches we had observed and to anticipate each other's behavior. Based on the results of this first phase, we developed a questionnaire to examine how the network of relationships influenced the applications and interpretations of these emic cultural constructs.

Phase 1: Eliciting the Cultural Constructs

Method

Subjects. We interviewed six men and four women, chosen from the full sample of key management and operational personnel we planned to include in the second phase (see Phase 2 method section, below). Previous research has indicated that the majority of all constructs can be generated by a relatively small sample within a population (Dunn et al. 1986:372). We wanted to capture the diversity of perspectives that existed in the organization. To this end, we interviewed the three top executives who epitomized the cultural tensions in the firm (the owner, the chief operating officer, and the chief financial officer) and seven other employees selected to represent four diverse functional areas and various levels in the firm (two department heads, three supervisors, and two nonsupervisory employees). Each individual in the sample was promised and provided with personalized feedback concerning the constructs elicited in the interviews.

Procedure. In order to operationalize our view of organizational culture, we turned to personal construct theory (Kelly 1955) for a technique designed specifically to elicit the constructs that individuals use to anticipate the behavior of others. Kelly's repertory grid technique has been used in a wide variety of settings to enable individuals to verbalize the cognitive constructs they use to organize and anticipate events (e.g., Romney and D'Andrade 1964; Wexler and Romney 1972). Only a brief discussion of this technique is possible here, but the definitive review of the psychometric properties of this method is provided by Bannister and Mair (1968), and a major review of personal construct research is contained in a book by Adams-Webber (1979). The important point to make is that the repertory grid technique was developed to measure exactly the kind of personal constructs that, according to many cognitive anthropologists (e.g., Wallace 1970), constitute the ideational dimensions of culture.

Each of the ten employees was interviewed at the work site by a researcher for up to 90 minutes using the structured but informal grid technique outlined recently by Eden, Jones, and Sims (1983). The interviewers presented the participants with three names at a time, asking: "In what important way are two of these people alike but different from the third?" and "How is this person different?" Nine names of PacDis employees were utilized, and 24 triads were presented to each participant so that each pair of names occurred twice (Burton and Nerlove 1976). Research has shown that each individual has only a limited number of constructs relevant to any particular domain, and that few new constructs are elicited after twenty or so triads have been presented (Hunt 1951).

For each triad a similarity and a difference were elicited to form the verbal labels of two poles of a bipolar construct. The interviewers followed Kelly's method of encouraging participants to articulate the distinctions and similarities suggested by the triads, to spontaneously elaborate on the bases for their discriminations. Facile similarities such as "They're both in marketing" were not ignored, but following Kelly (1955:222), participants were encouraged to keep talking so that important psychological similarities and differences would emerge. As verbal labels for construct poles were elicited, they were written down by the researchers and confirmed by the participants. The informality of

this technique was designed to encourage "thinking aloud," the verbalization of unconscious and taken-for-granted constructs. This flexible form of the repertory grid technique provides much more information about the subjects' constructs than paper and pencil tests (Kelly 1955:224).

Results of Phase I

On average, each subject used 21 constructs (standard deviation = 4.5), with the number ranging from 13 to 29. We examined the ten lists of elicited constructs to see if any common constructs were present. According to Kelly, verbal labels are not the constructs themselves but merely signify processes that may or may not have been previously verbalized. Therefore, we looked for similarities in ideas rather than in exact wording. For example, "Follows procedures vs. More freewheeling" and "Likely to go by the book vs. Likely to break rules" were counted as representing the same basic construct. Seven such constructs were identified, each of which had been spontaneously generated by at least six out of the ten participants. Verbal labels for the poles of the seven constructs were selected from individual protocols to accurately reflect their consensual ideas. The seven constructs are presented in Table 1.

These constructs summarize the major contrasts in behavioral styles experienced by organizational members. According to Wallace's (1970) view of culture, these constructs allow organizational members to anticipate the diversity of behaviors in the organization. The constructs capture various aspects of the organization's main ideological struggle as delineated by the consultants' reports and supported by our own observations. This struggle was between those who, like Bob Jamison, favored a flexible, easy-going company, and those who, like Ralph Gibson, preferred a critical, rule-based approach.

Gouldner (1954), in his classic account of a wildcat strike at a gypsum company, found a similar pattern of opposed expectations. The indulgent pattern, practiced by the late manager, Doug, was in complete contrast to the production orientation of the new manager, Peele. The culture of the company was organized around several dichotomies: leniency versus strictness, flexibility versus inflexibility, and rule-bending versus rule-binding. Gouldner documented how the sudden switch in management style violated workers' anticipations and disrupted cooperative relationships within the company.

In summary, a set of seven constructs was elicited from a subsample of ten people using Kelly's repertory grid technique. By eliciting the cultural constructs from organizational members, we were able to approach culture from the participants' rather than the survey researchers' point of view. The seven constructs were assumed to express vital aspects of the organization's culture and to possess psychological resonance for each individual in the organization.

Table 1
The seven elicited constructs and the number of people who used each construct.

Number of people who used construct (maximum = 10)	Constructs	
10	Inflexible, critical	Flexible, tolerant
8	Does the job and nothing more	Eats, sleeps, and breathes PacDis
9	Goes by the book	Prepared to cut corners
6	Lets things slide	Efficient, organized
9	Easy-going, relaxed	Aggressive, competitive
6	Tactful, diplomatic	Straightforward, blunt
10	People-oriented	Task-oriented

Phase 2: Network Relations and Cultural Attributions

Our view of organizational culture as a cognitive system negotiated between interacting individuals suggests that people use the social network to find support for their own interpretations of experience. Previous work has focused mainly on showing that friends share similar constructs (Duck 1973; Duck and Spencer 1972), and that supervisors and subordinates who like each other think in terms of the same constructs (Triandis 1959). But we predicted that people would tend not only to use the same constructs as their friends but also to use these constructs to make similar predictions about coworkers' behaviors. In other words, we expected that PacDis employees would tend to agree with their friends on how flexible or inflexible other employees were, how people-oriented versus task-oriented they were, and so on. Through processes of social comparison (Festinger 1954), the attributions people make about others in the organization tend to be influenced by and aligned with the attributions of their friends. From the social comparison perspective, people evaluate beliefs (such as whether Smith is efficient) by comparing their uncertain opinions with others in their social network (Festinger, Schachter, and Back 1950; Kilduff 1990).

Based on the above discussion, we hypothesized that, relative to nonfriends, friends would construe fellow workers similarly.

Hypothesis 1: Relative to pairs who are not friends, pairs who are friends will have similar patterns of cultural attributions on each of the seven dimensions.

The social network operates not only to support idiosyncratic patterns of attributions but also to control the diversity of possible attributions. People who can find little support for their opinions among their friends are likely to be in a state of discomfort or cognitive dissonance (Festinger 1957) because they hold two beliefs that are incongruous with each other, namely: "I like my friends," and "My friends dislike my opinions." This discomfort is likely to manifest itself in a number of ways, including a reduction in overall satisfaction with work.

Hypothesis 2: There will be a positive correlation between how closely individuals agree with their friends and how satisfied they are with their jobs.

Method

Subjects. Forty-seven of the 162 PacDis employees (24 men and 23 women) were paid \$10 each to complete and return a lengthy questionnaire.² We used two criteria for selection in the sample. First, we included all the supervisors and management personnel at headquarters and at each of the four branches. Second, we asked the chief operating officer, Mr. Jamison, to assist us in identifying key operating personnel in accounting, purchasing, and manufacturing in the organization. We added these employees to our sample to ensure that we captured the entire operational core of the organization. Each subject was thoroughly briefed concerning the aims and outcomes of the research after the study was completed.

Measures. In order to measure friendship choices, each person was provided with a list of all 48 people in the sample and asked to check the names of his or her personal friends. On a separate form each respondent was also asked to check the names of individuals whom the respondent thought would consider the respondent a personal friend. These data were aggregated into one $N \times N$ matrix using the following rule: If persons i and j both agree that person i considers person j to be a personal friend, then entry (i, j) in the matrix equals 1. Otherwise, entry (i, j) equals 0. The resulting adjacency matrix was labeled the Friendship Matrix.

Attributions about fellow workers were measured using the seven elicited constructs from phase 1. For each of the seven constructs, each person rated every other person on a seven-point Likert scale (where 1 = one end of the bipolar dimension, and 7 = the opposing end of the same dimension). For example, Bob Jamison rated Ralph Gibson on how flexible and tolerant he was (as opposed to inflexible and critical), how task-oriented

he was (as opposed to people-oriented), and so on. Jamison then rated each of the other 47 people (including himself) on the same scales.

From these data, a coefficient of similarity for each pair of individuals for each construct was created. This was accomplished by calculating the Pearson correlation between their vectors of ratings. For example, the coefficient of similarity on the flexibility construct for Jamison and Gibson was the correlation between Jamison's vector of "flexibility" ratings for each of the 48 employees and Gibson's corresponding "flexibility" ratings for those same 48 employees. Repeating this procedure for each pair of individuals permitted the creation of an $N \times N$ similarity matrix of such scores for each of the seven constructs. These seven Attribution Similarity Matrices were hypothesized to map onto the friendship social network.

Overall job satisfaction was measured using the five items from the Michigan Organizational Assessment Questionnaire (Cammann et al. 1983). These items consisted of seven-point Likert scales with end points labeled "strongly disagree" and "strongly agree."

Analyses. To test Hypothesis 1 (relative to nonfriends, friends would construe fellow workers similarly), the Friendship Matrix was correlated with each of the seven Attribution Similarity Matrices. To the extent that the hypothesis is true, a positive correlation should be observed between these matrices (i.e., the 1's in the Friendship Matrix should match up with high similarity scores in the Attribution Similarity Matrix). Since the unit of analysis for this correlation was the dyad, the test for this correlation was based on $N \times (N - 1)$ nonindependent observations. Thus, a nonparametric test, the quadratic assignment procedure, or QAP, was used to test the significance of the correlation (Baker and Hubert 1981; Hubert 1987; Hubert and Schultz 1976).³

Although the QAP procedure provides a significance test (expressed as a Z score), it does not reveal the strength of the relationship between two matrices. To measure the strength of the correlations, we calculated Goodman and Kruskal's (1963) gamma, a nonparametric correlation coefficient that is a more appropriate descriptive measure than Pearson's r for skewed and binary data such as is contained in the Friendship Matrix.

The second hypothesis, that relative to those who agreed with their friends, those who disagreed would be less satisfied, was tested by creating an index of average agreement with friends for each individual. This index was the arithmetic mean of the attributional similarity scores that were calculated between each person and his or her friends. The agreement index was correlated with satisfaction scores for each person. Pearson correlations and t -tests were used, instead of the gammas and QAP tests used for the first hypothesis, because Hypothesis 2 involved predictions at the level of the individual.

A multidimensional scaling was performed on the graph-theoretic distance matrix derived from the Friendship Matrix in order to provide a visual picture of the friendship network in the organization. The two-dimensional scaling solution (stress = .11) was overlaid with the sociogram of friendship relations.

Results of Phase 2

A map of the friendship links in the organization (Figure 1) shows a center-periphery structure in which there are no obvious cliques. At the center of the network, with many friends, is the chief operating officer, Bob Jamison (21). Close to Jamison, in terms of his role in the informal network, is the president, John Briggs (13), but far removed from the center of the network is the chief financial officer, Ralph Gibson (41). Consistent with our informal observations, the map shows that both Gibson and Jamison were friends with the president, but not with each other. There were five individuals who had no friendship links with anyone (persons 47, 39, 30, 2, and 6, located in the upper right-hand corner of Figure 1). These individuals were either from the computer group or from outlying branches. Their contact with other organizational members was minimal and mainly involved questions of technical support.

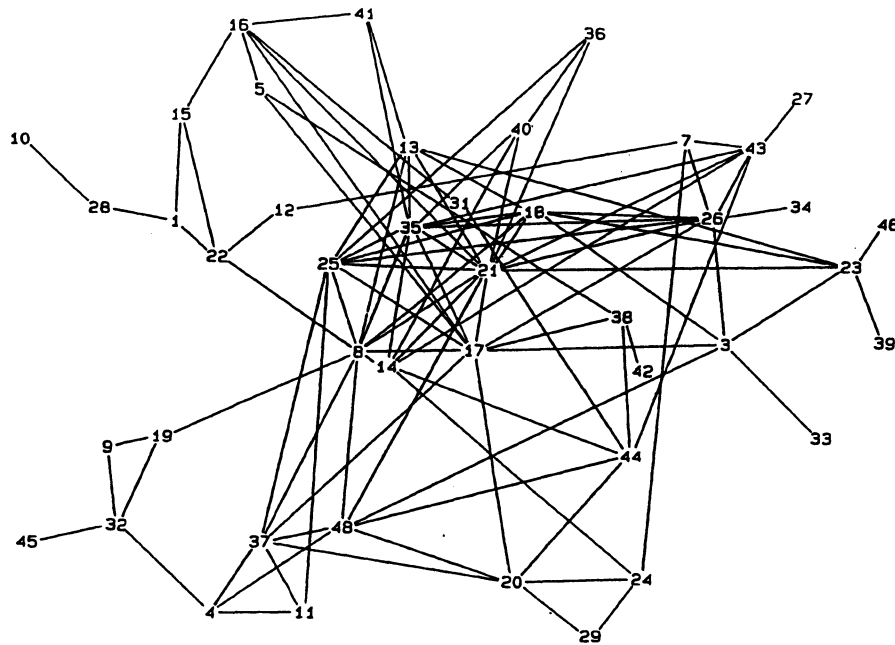


Figure 1
Friendship sociogram on multidimensional scaling representation of path distances.

Table 2
Distributions of Attribution Similarity Scores for each construct.

Construct	Mean Attribution Similarity Score	Standard deviation	Minimum	Maximum	% of Scores below 0.0
Flexible, tolerant	.33	.21	-.50	1.00	6.3%
Eats, sleeps, and breathes PacDis	.44	.21	-1.00	1.00	1.7%
Prepared to cut corners	.21	.24	-.98	1.00	17.3%
Efficient, organized	.30	.22	-.78	1.00	8.9%
Aggressive, competitive	.37	.21	-.58	.93	3.8%
Straightforward, blunt	.32	.24	-.98	.96	8.8%
Task-oriented	.26	.22	-.81	1.00	11.5%

The first question to ask is: How much diversity was there concerning attributions about fellow workers in this organization? Table 2 indicates that the diversity of evaluations on the shared constructs was extreme: some pairs of individuals agreed completely on how they viewed others, whereas other pairs disagreed completely (correlations ranged from -1 to $+1$).

The diversity of opinions that existed in this organization is also indicated by the magnitude of the standard deviations of the average correlations between attributional vectors. For example, on the construct "Prepared to cut corners vs. Goes by the book," Table 2 shows that the average Pearson correlation between the 1,081 possible pairs of individuals' vectors was .21, with a standard deviation of .24. On this dimension, 17% of the correlations were actually less than zero, indicating considerable differences in how individuals construed their fellow workers.

Another descriptive issue is whether these dimensions were highly correlated with each other. That is, could the seven dimensions be reduced to fewer dimensions for analysis (i.e., did people think of "flexibility" and "prepared to cut corners" as the same thing)? To shed light on this issue, the correlations among the seven dimensions are reported in Table 3. In fact, most of the correlations were small. Of 21 pairs of dimensions, only one pair was correlated higher than .3: "Eats, sleeps, and breathes PacDis" and "Efficient, organized" were correlated at .33. Rather than collapsing these dimensions into subscales, we considered these dimensions to be sufficiently independent to warrant separate analyses.⁴

The first hypothesis asks: Was the diversity of attributions random, or was the diversity patterned by the friendship network? The answer is given in Table 4, which shows that the attributions of friends were significantly more similar than those of nonfriends for each of the seven constructs ($p \leq .005$ for each construct). The gammas, ranging from .24 to .33, indicate a moderately strong relationship between friendship and attribution similarity.

There are at least two alternative explanations for this relationship. From a demographic perspective, those who join a firm around the same time form a cohort within which attitudes are likely to be similar (because of similar experiences), and friendships are likely to develop (Pfeffer 1983; Wagner, Pfeffer, and O'Reilly 1984). From this perspective, we would expect the observed relationship between friendship and attributional similarity to disappear when we control for tenure in the organization.

To test for this alternative explanation, we used a multiple regression extension of QAP (Krackhardt 1987, 1988). To partial out the effects of tenure, we created an $N \times N$ matrix whose (i, j) cell was set equal to one if i and j arrived the same year at PacDis (i.e., were cohorts in the same entering "class"); otherwise the cell (i, j) was set equal to zero. Table 5 shows that the hypothesized relationship remained strong and significant, even con-

Table 3
Correlations among the seven dimensions.

	Dim1	Dim2	Dim3	Dim4	Dim5	Dim6	Dim7
Dim1: Flexible, tolerant	1.000	0.091	0.149	0.126	0.275	0.220	0.224
Dim2: Eats, sleeps, and breathes PacDis	0.091	1.000	-0.012	0.330	0.167	0.111	0.113
Dim3: Prepared to cut corners	0.149	-0.012	1.000	0.061	0.083	0.117	0.095
Dim4: Efficient, organized	0.126	0.330	0.061	1.000	0.069	0.023	0.088
Dim5: Aggressive, competitive	0.275	0.167	0.083	0.069	1.000	0.181	0.181
Dim6: Straightforward, blunt	0.220	0.111	0.117	0.023	0.181	1.000	0.249
Dim7: Task-oriented	0.224	0.113	0.095	0.088	0.181	0.249	1.000

Table 4
The relationship between friendship links and similarity of cultural attributions.

Construct	Gamma	Z (QAP)	p-level
Flexible, tolerant	.33	3.960	.0001
Eats, sleeps, and breathes PacDis	.28	3.330	.0005
Prepared to cut corners	.31	3.854	.0001
Efficient, organized	.33	4.276	.0001
Aggressive, competitive	.24	2.866	.005
Straightforward, blunt	.27	3.205	.001
Task-oriented	.32	4.342	.0001

