

"FRIENDSHIP PATTERNS AND CULTURAL
ATTRIBUTIONS: THE CONTROL OF
ORGANIZATIONAL DIVERSITY"

by
David KRACKHARDT*
and
Martin KILDUFF**

N° 89 / 27

- * Johnson Graduate School of Management, Cornell University
- ** Assistant Professor of Organizational Behaviour, INSEAD,
Boulevard de Constance, 77305 Fontainebleau, France

Director of Publication:

Charles WYPLOSZ, Associate Dean
for Research and Development

Printed at INSEAD,
Fontainebleau, France

Friendship Patterns and Cultural Attributions: The Control of Organizational Diversity*

by

David Krackhardt
Johnson Graduate School of Management
Cornell University

and

Martin Kilduff
INSEAD
Fontainebleau, France

*We wish to thank Dan Brass and Charles O'Reilly for helpful comments on earlier drafts of this paper.

Friendship Patterns and Cultural Attributions: The Control of Organizational Diversity

Forty-seven key members of an entrepreneurial organization rated each other on dimensions tailored to the culture of this organization. As predicted, friends construed the members of the organization more similarly than non-friends. These results remained significant even controlling for either a cohort effect or an organization position effect. Further, individuals who disagreed with their friends' perceptions tended to be dissatisfied with their jobs. People's attributions appear to be controlled by the need to be in harmony with others in their friendship networks. The control of organizational diversity, therefore, may be as much an interpersonal initiative as it is a prerogative of management manipulation.

Friendship Patterns and Cultural Attributions:

The Control of Organizational Diversity

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; Deal and Kennedy, 1982; for a critique see Barley, Meyer, & Gash, 1988). From this "culture as managerial tool" perspective, an effective organization is like a clan in Durkheim's terms, in that it relies on mechanical solidarity — a religious adherence to common beliefs and practices — to ensure cooperation (Durkheim, 1933, pp. 175-178). The clan cannot tolerate any divergence from the "totality of belief and sentiments common to all members of the group" (Durkheim, 1933, p. 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).

Thus we see two different views on organizational culture in the literature. From the “managerial tool” perspective, culture is a unifying force, a normative glue that binds people together (Siehl, 1985). On the other hand, 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 paper 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, p. 36). These shared constructs allow organizational members to make sense of on-going organizational activities.

In this paper, we treat culture as a cognitive system (as defined by Keesing, 1971) 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 site for the research was a small regional distributor that we will call Pacific Distributors Incorporated (PacDis).¹ PacDis

¹All proper names, including the name of the firm, are pseudonyms in order to protect the anonymity of the company and its personnel.

employed a total of 162 people at its headquarters and four branch offices. The company had been founded by its current President, John Briggs. It 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 routinely scheduled organizational development interventions designed to improve communications between the different factions in the company. According to the consultants' reports, there was an on-going 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 OD 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. Previous research has indicated that the majority of all constructs can be generated by a relatively small sample within a population (Dunn, Cahill, Dukes, & Ginsberg, 1986: 372). Our interview sample included representatives from different functional areas and hierarchical levels. 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 that 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 ninety minutes using the structured but informal grid technique outlined recently by Eden, Jones, & 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).

In summary, ten PacDis employees were interviewed to elicit the constructs they used to capture, organize and anticipate the varieties of behavior of their fellow coworkers.

Results of Phase 1

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 6 out of the 10 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.

Insert Table 1 About Here

These constructs summarize the major contrasts in behavioral styles experienced by organizational members. From the perspective of 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 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, easygoing company, and those who, like Ralph Gibson, preferred a critical, rulebased 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 7 constructs was elicited from a subsample of 10 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 organization.

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 and Spencer, 1972; Duck, 1973), and that supervisors and subordinates who like each other think in terms of the same constructs (Triandis, 1959). But we predict that people will 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 expect that PacDis employees will tend to agree with their friends on how flexible or inflexible other employees are, how people-oriented versus task-oriented they are, etc. Through processes of social comparison (Festinger, 1954), the attributions people make about others in the organization will 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, Schacter, and Back, 1950; Kilduff, 1988).

Based on the above discussion, we hypothesize that, relative to nonfriends, friends will construe fellow workers similarly. Specifically:

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, however, 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 The sample

²Our original sample contained 48 employees. However, one person did not fill out the questionnaire. Thus, while the questionnaire contained 48 names, only the responses from the 47 people who completed the instrument were included in the subsequent analysis.

included all the supervisors and management personnel at headquarters and at each of the four branches. In addition, non-supervisory headquarters staff in accounting, purchasing, and manufacturing who were judged by the researchers and the PacDis executives to play critical roles in the operations of the company were sampled. 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 person 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 one. 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 of 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 (Camman, Fichman, Jenkins, and Klesh, 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 non-friends, 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 $N \times (N - 1)$ non-independent observations. Thus, a nonparametric test, the quadratic assignment procedure (QAP), was used to test the significance of the correlation.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 (Hubert & Schultz, 1976) such as is contained in the Friendship Matrix.

The subsequent hypothesis that, relative to those who agreed with their friends, those who disagreed would be less satisfied was tested by creating an index

³ The QAP is a permutation-based test of significance for interdependent data of the sort encountered here (Krackhardt, 1988). See Baker and Hubert (1981) and Krackhardt (1987) for an introduction to the technique and Hubert and Schultz (1976) and Hubert (1985) for more thorough treatments.

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 are friends with the President, but not with each other. There are five individuals who have no friendship links with anyone (persons 47, 39, 30, 2 and 6, located in the upper right hand corner of Figure 1). These individuals are either from the computer group or from outlying branches. Their contact with other organizational members is minimal and mainly involves questions of technical support.

Insert Figure 1 About Here

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

Insert Table 2 About Here

The heterogeneity assumption is also supported 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," the average Pearson correlation between the 1081 possible pairs of individuals' vectors was .21, with a standard deviation of .24. On this dimension, 17 per cent 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 are highly correlated with each other. That is, can the 7 dimensions be reduced to fewer dimensions for analysis (i.e., do 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 Breathers 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

Insert Table 3 About Here

The first hypothesis asks: was this 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 non-friends 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.

Insert Table 4 About Here

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). The question is, then, does the observed relationship between friendship and attributional similarity 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

⁴ A common factor analysis was also conducted on these data. The results showed no factors of dominant size, although the first two factors had eigenvalues of 1.88 and 1.20, respectively. A varimax rotated solution grouped dimensions 1, 3, 5, 6 and 7 together in the first factor (explaining just over one quarter of the variance) and the second factor grouped the remaining two variables together (explaining 17% of the variance). These subsidiary analyses did not dissuade us from analyzing the dimensions separately.

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 controlling for tenure. The p -values range from .005 to .0001, and the gammas range from .22 to .31 (compared to .24 to .33 if tenure is not controlled for).

The second alternative explanation that we considered derives from the idea that people in similar organizational positions make similar kinds of judgments (Walker, 1985). Perhaps people make friendship choices from among those in similar roles, and thus the observed correlation between friendship and attribution similarity is spurious. To test this alternative explanation, we controlled for formal organizational position. An $N \times N$ matrix describing the formal organization was created such that the (i, j) cell was set equal to one if i reported to j in the formal organizational chart; the (i, j) cell was set to zero otherwise. As the results in Table 5 show, the hypothesized relation between friendship and attributional similarity was still highly significant (p -values ranging from .005 to .0001), and the gammas, ranging from .18 to .27, continued to indicate a moderately strong correlation.

Insert Table 5 About Here

Thus the hypothesis that pairs of friends would be more similar in how they construe their fellow workers received strong support. The relationship between friendship and attributional similarity remained significant even controlling for either cohort or organizational structure effects. Friends construe the organization similarly.

But what if individuals disagree with their friends? The results in Table 6 suggest that such disagreement reduces job satisfaction, as predicted in Hypothesis

2. For five of the seven dimensions, the Pearson correlations between agreement and satisfaction ranged from .45 to .69 (p -values from .001 to .0001). These high correlations indicate that whether individuals agreed or disagreed with how their friends viewed others in the organization had a powerful influence on their levels of job satisfaction.

Insert Table 6 About Here

Discussion

In this paper, we have described a method for uncovering the cultural constructs that people use to make sense of their interpersonal experiences in organizations. In the first phase of the research, we found that the repertory grid technique captured the on-going tension in the PacDis organization between established and emergent norms. The original values of flexibility and people-orientation stressed by the organization's founders were being challenged by a much more rule-bounded and task-oriented approach.

In the second phase of the research, we confirmed that interpersonal networks support individual interpretations of experience, and that these networks help control the diversity of possible interpretations. Interpersonal networks are one of the media through which organizational culture is maintained and challenged. Those who find support among their friends for idiosyncratic interpretations of the culture are more satisfied with their jobs than those whose interpretations run counter to friends' views.

One implication of these findings is that organizational culture can be only an imperfect management control device. To the extent that the culture of the organization is transmitted and transmuted by the friendship network, it is clearly

outside the control of the formal organizational socialization and reward system. A sub-culture can flourish among a group of friends who use the same constructs as everyone else, but interpret them differently. For example, everyone in the organization may believe in the virtues of both honesty and initiative but people may differ as to how a specific behavior such as insider trading should be interpreted. Should one view those engaging in insider trading with admiration, because they display great initiative? Or should one condemn these traders because they are dishonest? The present research suggests that within any organizational culture the same set of cultural values can lead to discrepant attributions about the same people.

Much previous research in applied anthropology has suggested that social relationships at work affect whether people are satisfied with their jobs (e.g., Colins, Dalton and Roy, 1946; Roy, 1953; 1954; Walker, Guest and Turner, 1956). More recently, network analysts have tested the effects of social relationships on such important outcomes as turnover (Krackhardt and Porter, 1985) and organizational choice (Kilduff, 1988). The current study goes further in examining the relationship between network ties and organizational outcomes in the context of organizational culture. The two phase research design allowed us to capture some of the richness of a particular organizational setting in the actual questionnaire used to test theoretically derived hypotheses.

Of course, the present study lacks much of the thick description that characterizes earlier ethnographic studies of informal relationships at work (e.g., Dalton, 1959; Whyte, 1948). In addition, the cross-sectional nature of this research limits our understanding of the dynamics of cultural change. These limitations of the study suggest the need for future research that looks at how culture evolves through social relationships over time throughout the organization.

In conclusion, we have found that friends significantly affect people's evaluations of fellow employees on culturally relevant criteria. People's attributions are to some extent controlled by the need to be in harmony with others in their friendship

networks. These networks are likely to strongly resist management attempts to initiate discrepant cultural values or interpretations (cf. Siehl, 1985). The organization can be depicted as a magnetic field in which individual components attract and repel each other (Nord, 1985). Within this fragmented universe, friends can establish mutually reinforcing interpretive systems. The control of organizational diversity, therefore, may be as much an interpersonal initiative as it is a prerogative of management manipulation.

TABLE 1

**The Seven Elicited Constructs and the Number of People
Who Used Each Construct**

**Number
of people
who used
construct
(max=10)**

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

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%

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 Cor- ners	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, Competi- tive	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

TABLE 5

Partial Correlations Between Friendship Network and Agreement on Each Construct Controlling for Alternative Explanations

Construct:	Controlling for:	Gamma	Z (QAP)	p-level
Flexible, Tolerant	Tenure:	.29	3.961	.0001
	Formal Organization:	.26	3.735	.0001
Eats, Sleeps and Breathes PacDis	Tenure:	.27	3.327	.0005
	Formal Organization:	.25	3.302	.0005
Prepared to Cut Corners	Tenure:	.27	3.855	.0001
	Formal Organization:	.25	3.777	.0001
Efficient, Organized	Tenure:	.31	4.277	.0001
	Formal Organization:	.27	4.081	.0001
Aggressive, Competitive	Tenure:	.22	2.872	.005
	Formal Organization:	.18	2.619	.005
Straightforward, Blunt	Tenure:	.26	3.203	.001
	Formal Organization:	.20	2.911	.005
Task-oriented	Tenure:	.27	4.355	.0001
	Formal Organization:	.25	4.098	.0001

TABLE 6

Correlations Between Attitudes and Average Agreement with Friends

Construct:	r	t-value	p-level
Flexible, Tolerant	.48	3.627	.0005
Eats, Sleeps and Breathes PacDis	.47	3.615	.0005
Prepared to Cut Corners	.69	6.355	.0001
Efficient, Organized	.47	3.540	.0005
Aggressive, Competitive	.22	1.484	ns
Straightforward, Blunt	.45	3.384	.001
Task-oriented	.23	1.620	ns

REFERENCES

- Adams-Webber, Jack R.
1979 Personal construct theory: concepts and applications. Chichester, England: Wiley.
- Baba, Marietta L.
1986 Business and industrial anthropology: An overview. American Anthropological Association.
- Baker, Frank B. and Lawrence J. Hubert
1981 The analysis of social interaction data: A nonparametric technique. Sociological Methods and Research, 9:339-361.
- Bannister, D. and J.M.M. Mair
1968 The evaluation of personal constructs. London: Academic Press.
- Barley, Stephen R., Gordon W. Meyer, and Debra C. Gash
1988 Up against the wall of control: The pragmatics of organizational culture. Paper delivered at the Standing conference on Organizational Symbolism, University of Quebec.
1988 Cultures of Culture: Academics, Practitioners and the pragmatics of normative control. Administrative Science Quarterly 33:24-60.
- Burton, Michael L. and Sara B. Nerlove
1976 Balanced designs for triads tests: Two examples from English. Social Science Research, 5:247-267.
- Camman, Cortland, Mark Fichman, G. Douglas Jenkins, Jr., and John R. Klesh
1983 Assessing the attitudes and perceptions of organizational members. In Stanley E. Seashore, Edward E. Lawler, III, Philip H. Mirvis, and Cortland Cammann (eds.), Assessing organizational change: . New York: Wiley.
- Collins, O., Dalton, M., & Roy, D.
1946 Restriction of output and social change in industry. Applied Anthropology, 5:1-14.
- Coser, Lewis A.
1956 The functions of social conflict. Glencoe, IL: Free Press.
- Dalton, Melville
1959 Men who Manage New York: John Wiley.
- Deal, Terence E., and Allan A. Kennedy
1982 Corporate cultures. Reading, MA: Addison-Wesley.
- Duck, Steven W.
1973 Personal relationships and personal constructs: A study of friendship formation. London: Wiley.
- Duck, Steven W. and C. Spencer
1972 Personal constructs and friendship formation. Journal of Personality and Social Psychology, 23: 40-45.

- Dunn, William N., Anthony G. Cahill, Mary J. Dukes, and Ari Ginsberg
1986 The policy grid: A cognitive methodology for assessing policy dynamics.
In William N. Dunn (ed.), Policy analysis: Perspectives, concepts, and
methods: 355-375. Greenwich, CT: JAI Press.
- Durkheim, Emile
1933 The division of labor in society. Glencoe, IL: the Free Press.
- Eden, Colin, Sue Jones, and David Sims
1983 Messing about in problems. Oxford: Pergamon Press.
- Festinger, Leon
1954 A theory of social comparison processes. Human Relations, 7:117-40.
1957 A theory of cognitive dissonance. New York: Row, Peterson.
- Festinger, L., Schachter, S., and Back, K.
1950 Social pressures in informal groups: a study of human factors in
housing, New York: Jarper.
- Geertz, Clifford
1973 Ritual and social change: A Javanese example. In The interpretation of
cultures: Selected essays by Clifford Geertz: 142-169. New York: Basic
Books.
- Goodman, Leo A. and William H. Kruskal
1963 Measures of association for cross-classifications, III: Approximate
sampling theory. Journal of the American Statistical Association,
58:310-364.
- Gouldner, Alvin W.
1954 Wildcat strike. Yellow Springs, OH: the Antioch Press.
- Gregory, Kathleen L.
1983 Native-view paradigms: Multiple cultures and culture conflicts in
organizations. Administrative Science Quarterly, 28:359-376.
- Holzberg, Carol S., & Maureen J. Giovannini
1981 Anthropology and industry: Reappraisal and new directions. Annual
Review of Anthropology, 10:317-360.
- Hubert, Lawrence J.
1987 Assignment methods in combinatorial data analysis, New York: Marcel
Dekker Inc.
- Hubert, L. and J. Schultz
1978 Quadratic Assignment as a general data analysis strategy. British
Journal of Mathematical and Statistical Psychology, 29:190-241.
- Hunt, David E.
1951 Studies in role concept repertory: Conceptual consistency. Unpublished
master's thesis, Ohio State University.
- Keesing, Roger M.
1974 Theories of Culture. Annual Review of Anthropology.

- Kelly, George A.
1955 The psychology of personal constructs. New York: Norton.
- Kilduff, Martin
1988 Decision making in context: Social and personality correlates of choices of organizations. Best Paper Proceedings of the Academy of Management, 48:211-215.
- Krackhardt, David
1987 QAP Partialling as a test of spuriousness. Social Networks, 10:171-186.
1988 Predicting with networks: Nonparametric multiple regression analysis of dyadic data. Social Networks, 10:359-381.
- Krackhardt, David, and Lyman W. Porter
1986 The snowball effect: Turnover embedded in communication networks. Journal of Applied Psychology, 71:1-6.
- Ouchi, William G.
1980 Markets, bureaucracies, and clans. Administrative Science Quarterly, 25:129-141.
- Pettigrew, Andrew M.
1979 On studying organizational cultures. Administrative Science Quarterly, 24:570-581.
- Pfeffer, Jeffrey
1983 Organizational demography. In Larry L. Cummings and Barry M. Staw (eds.), Research in organizational behavior, 5:299-357. Greenwich, CT: JAI Press.
- Roethlisberger, Fritz J., and Dickson, W. J.
1939 Management and worker: An account of a research program conducted by the Western Electric Company, Hawthorne Works, Chicago Cambridge: Harvard University Press.
- Romney, A. Kimball, and Roy, G. D'Andrade
1964 Cognitive aspects of English Kinship terms. American Anthropologist, 66, 146-170.
- Roy, D.
1953 Work satisfaction and social reward in quota achievement. American Sociological Review, 18:507-514.
1954 Efficiency and the fix: Informal intergroup relations in a piece-work machine shop. American Journal of Sociology, 60:255-266.
- Siehl, Caren
1985 After the founder: An opportunity to manage culture. In Peter Frost, Larry F. Moore, Meryl Reis Louis, Craig C. Lundberg, & Joanne Martin (Eds.), Organizational Culture, 125-140. Beverly Hills, CA: Sage.
- Stoffle, Richard W.
1975 Reservation-based industry: A case from Zuni, New Mexico. Human Organization, 34:217-225.

Triandis, Harry C.

1959 Cognitive similarity and interpersonal communication in industry.
Journal of Applied Psychology, 43:321-326.

Trice, Harrison M.

1985 Rites and ceremonials in organizational culture. Research in the Sociology of Organizations, 4:271-309.

Wagner, W. Gary, Jeffrey Pfeffer, and Charles A. O'Reilly, III.

1984 Organizational demography and turnover in top-management groups.
Administrative Science Quarterly, 29:74-92.

Walker, C.R., Guest, R.H., & Turner, A.

1956 The foreman on the assembly line. Cambridge, MA: Harvard University Press.

Walker, Gordon

1985 Network position and cognition in a computer software firm.
Administrative Science Quarterly, 30:103-130.

Wallace, Anthony F.C.

1970 Culture and personality. New York: Random House.

Wexler, Kenneth, and A. Kimball Romney

1972 Individual variations in cognitive structures. In A. Kimball Romney, Roger N. Shepard and Sara B. Nerlove (Eds.) Multidimensional scaling: Theory and applications in the behavioral sciences, Volume II. New York: Seminar Press.

Whyte, W.F.

1948 Human relations in the restaurant industry. New York: McGraw Hill.
1951 Pattern for industrial piece. New York: Harper & Row.

INSEAD WORKING PAPERS SERIES

1986

- | | | | | | |
|-------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 86/01 | Arnoud DE MEYER | "The R & D/Production interface". | 86/16 | B. Espen ECKBO and
Hervig M. LANGOHR | "Les primes des offres publiques, la note
d'information et le marché des transferts de
contrôle des sociétés". |
| 86/02 | Philippe A. NAERT
Marcel VEVERBERGH
and Guido VERSWIJVEL | "Subjective estimation in integrating
communication budget and allocation
decisions: a case study", January 1986. | 86/17 | David B. JEMISON | "Strategic capability transfer in acquisition
integration", May 1986. |
| 86/03 | Michael BRIMM | "Sponsorship and the diffusion of
organizational innovation: a preliminary view". | 86/18 | James TEBOUL
and V. MALLERET | "Towards an operational definition of
services", 1986. |
| 86/04 | Spyros MAKRIDAKIS
and Michèle HIBON | "Confidence intervals: an empirical
investigation for the series in the M-
Competition" . | 86/19 | Rob R. WEITZ | "Nostradamus: a knowledge-based forecasting
advisor". |
| 86/05 | Charles A. WYPLOSZ | "A note on the reduction of the workweek",
July 1985. | 86/20 | Albert CORHAY,
Gabriel HAWAVINI
and Pierre A. MICHEL | "The pricing of equity on the London stock
exchange: seasonality and size premium",
June 1986. |
| 86/06 | Francesco GIAVAZZI,
Jeff R. SHEEN and
Charles A. WYPLOSZ | "The real exchange rate and the fiscal
aspects of a natural resource discovery",
Revised version: February 1986. | 86/21 | Albert CORHAY,
Gabriel A. HAWAVINI
and Pierre A. MICHEL | "Risk-premia seasonality in U.S. and European
equity markets", February 1986. |
| 86/07 | Douglas L. MacLACHLAN
and Spyros MAKRIDAKIS | "Judgmental biases in sales forecasting",
February 1986. | 86/22 | Albert CORHAY,
Gabriel A. HAWAVINI
and Pierre A. MICHEL | "Seasonality in the risk-return relationships
some international evidence", July 1986. |
| 86/08 | José de la TORRE and
David H. NECKAR | "Forecasting political risks for
international operations", Second Draft:
March 3, 1986. | 86/23 | Arnoud DE MEYER | "An exploratory study on the integration of
information systems in manufacturing",
July 1986. |
| 86/09 | Philippe C. HASPELACH | "Conceptualizing the strategic process in
diversified firms: the role and nature of the
corporate influence process", February 1986. | 86/24 | David GAUTSCHI
and Vithala R. RAO | "A methodology for specification and
aggregation in product concept testing",
July 1986. |
| 86/10 | R. HOENART,
Arnoud DE MEYER,
J. BARBE and
D. DESCHOOLMEESTER. | "Analysing the issues concerning
technological de-maturity". | 86/25 | B. Peter GRAY
and Ingo WALTER | "Protection", August 1986. |
| 86/11 | Philippe A. NAERT
and Alain BULTEZ | "From "Lydiometry" to "Pinkhamization":
mispredicting advertising dynamics rarely
affects profitability". | 86/26 | Barry EICHENGREEN
and Charles WYPLOSZ | "The economic consequences of the Franc
Poincare", September 1986. |
| 86/12 | Roger BETANCOURT
and David GAUTSCHI | "The economics of retail firms", Revised
April 1986. | 86/27 | Karel COOL
and Ingemar DIERICKX | "Negative risk-return relationships in
business strategy: paradox or truism?",
October 1986. |
| 86/13 | S.P. ANDERSON
and Damian J. NEVEN | "Spatial competition à la Cournot". | 86/28 | Manfred KETS DE
VRIES and Danny MILLER | "Interpreting organizational texts. |
| 86/14 | Charles WALDMAN | "Comparaison internationale des marges brutes
du commerce", June 1985. | 86/29 | Manfred KETS DE VRIES | "Why follow the leader?". |
| 86/15 | Mihkel TOMBAK and
Arnoud DE MEYER | "How the managerial attitudes of firms with
FMS differ from other manufacturing firms:
survey results". June 1986. | 86/30 | Manfred KETS DE VRIES | "The succession game: the real story. |
| | | | 86/31 | Arnoud DE MEYER | "Flexibility: the next competitive battle",
October 1986. |
| | | | 86/31 | Arnoud DE MEYER,
Jinichiro NAKANE,
Jeffrey G. MILLER
and Kasra FERDOVS | "Flexibility: the next competitive battle",
Revised Version: March 1987 |
| | | | 86/32 | Karel COOL
and Dan SCHENDEL | Performance differences among strategic group
members", October 1986. |

- 86/33 Ernst BALTENSPERGER and Jean DERMINE "The role of public policy in insuring financial stability: a cross-country, comparative perspective", August 1986, Revised November 1986.
- 86/34 Philippe HASPELACH and David JEMISON "Acquisitions: myths and reality", July 1986.
- 86/35 Jean DERMINE "Measuring the market value of a bank, a primer", November 1986.
- 86/36 Albert CORHAY and Gabriel HAVAVINI "Seasonality in the risk-return relationship: some international evidence", July 1986.
- 86/37 David GAUTSCHI and Roger BETANCOURT "The evolution of retailing: a suggested economic interpretation".
- 86/38 Gabriel HAVAVINI "Financial innovation and recent developments in the French capital markets", Updated: September 1986.
- 86/39 Gabriel HAVAVINI Pierre MICHEL and Albert CORRAY "The pricing of common stocks on the Brussels stock exchange: a re-examination of the evidence", November 1986.
- 86/40 Charles VYPLOSZ "Capital flows liberalization and the EMS, a French perspective", December 1986.
- 86/41 Kasra FERDOVS and Wickham SKINNER "Manufacturing in a new perspective", July 1986.
- 86/42 Kasra FERDOVS and Per LINDBERG "FMS as indicator of manufacturing strategy", December 1986.
- 86/43 Damien NEVEN "On the existence of equilibrium in hotelling's model", November 1986.
- 86/44 Ingemar DIERICKX Carmen MATUTES and Damien NEVEN "Value added tax and competition", December 1986.
- 1987
- 87/01 Manfred KETS DE VRIES "Prisoners of leadership".
- 87/02 Claude VIALLET "An empirical investigation of international asset pricing", November 1986.
- 87/03 David GAUTSCHI and Vithala RAO "A methodology for specification and aggregation in product concept testing", Revised Version: January 1987.
- 87/04 Sumantra GHOSHAL and Christopher BARTLETT "Organizing for innovations: case of the multinational corporation", February 1987.
- 87/05 Arnoud DE MEYER and Kasra FERDOVS "Managerial focal points in manufacturing strategy", February 1987.
- 87/06 Arun K. JAIN, Christian PINSON and Naresh K. MALHOTRA "Customer loyalty as a construct in the marketing of banking services", July 1986.
- 87/07 Rolf BANZ and Gabriel HAVAVINI "Equity pricing and stock market anomalies", February 1987.
- 87/08 Manfred KETS DE VRIES "Leaders who can't manage", February 1987.
- 87/09 Lister VICKERY, Mark PILKINGTON and Paul READ "Entrepreneurial activities of European MBAs", March 1987.
- 87/10 André LAURENT "A cultural view of organizational change", March 1987.
- 87/11 Robert FILDES and Spyros MAKRIDAKIS "Forecasting and loss functions", March 1987.
- 87/12 Fernando BARTOLOME and André LAURENT "The Janus Head: learning from the superior and subordinate faces of the manager's job", April 1987.
- 87/13 Sumantra GHOSHAL and Nitin NOHRIA "Multinational corporations as differentiated networks", April 1987.
- 87/14 Landis GABEL "Product Standards and Competitive Strategy: An Analysis of the Principles", May 1987.
- 87/15 Spyros MAKRIDAKIS "METAFORCASTING: Ways of improving Forecasting. Accuracy and Usefulness", May 1987.
- 87/16 Susan SCHNEIDER and Roger DUNBAR "Takeover attempts: what does the language tell us?", June 1987.
- 87/17 André LAURENT and Fernando BARTOLOME "Managers' cognitive maps for upward and downward relationships", June 1987.
- 87/18 Reinhard ANGELMAR and Christoph LIEBSCHER "Patents and the European biotechnology lag: a study of large European pharmaceutical firms", June 1987.
- 87/19 David BEGG and Charles VYPLOSZ "Why the EMS? Dynamic games and the equilibrium policy regime", May 1987.
- 87/20 Spyros MAKRIDAKIS "A new approach to statistical forecasting", June 1987.
- 87/21 Susan SCHNEIDER "Strategy formulation: the impact of national culture", Revised: July 1987.
- 87/22 Susan SCHNEIDER "Conflicting ideologies: structural and motivational consequences", August 1987.
- 87/23 Roger BETANCOURT David GAUTSCHI "The demand for retail products and the household production model: new views on complementarity and substitutability".

87/24	C.B. DERR and André LAURENT	"The internal and external careers: a theoretical and cross-cultural perspective", Spring 1987.	87/41	Gavriel HAVAVINI and Claude VIALLET	"Seasonality, size premium and the relationship between the risk and the return of French common stocks", November 1987
87/25	A. K. JAIN, N. K. MALHOTRA and Christian PINSON	"The robustness of MDS configurations in the face of incomplete data", March 1987, Revised: July 1987.	87/42	Damien NEVEN and Jacques-P. THISSE	"Combining horizontal and vertical differentiation: the principle of max-min differentiation", December 1987
87/26	Roger BETANCOURT and David GAUTSCHI	"Demand complementarities, household production and retail assortments", July 1987.	87/43	Jean GABSZEVICZ and Jacques-F. THISSE	"Location", December 1987
87/27	Michael MURDA	"Is there a capital shortage in Europe?", August 1987.	87/44	Jonathan HAMILTON, Jacques-F. THISSE and Anita WESKAMP	"Spatial discrimination: Bertrand vs. Cournot in a model of location choice", December 1987
87/28	Gabriel HAVAVINI	"Controlling the interest-rate risk of bonds: an introduction to duration analysis and immunization strategies", September 1987.	87/45	Karel COOL, David JEMISON and Ingemar DIERICKX	"Business strategy, market structure and risk-return relationships: a causal interpretation", December 1987.
87/29	Susan SCHNEIDER and Paul SHRIVASTAVA	"Interpreting strategic behavior: basic assumptions themes in organizations", September 1987	87/46	Ingemar DIERICKX and Karel COOL	"Asset stock accumulation and sustainability of competitive advantage", December 1987.
87/30	Jonathan HAMILTON V. Bentley MACLEOD and J. F. THISSE	"Spatial competition and the Core", August 1987.	<u>1988</u>		
87/31	Martine QUINZII and J. P. THISSE	"On the optimality of central places", September 1987.	88/01	Michael LAWRENCE and Spyros MAKRIDAKIS	"Factors affecting judgemental forecasts and confidence intervals", January 1988.
87/32	Arnoud DE MEYER	"German, French and British manufacturing strategies less different than one thinks", September 1987.	88/02	Spyros MAKRIDAKIS	"Predicting recessions and other turning points", January 1988.
87/33	Yves DOZ and Amy SHUEN	"A process framework for analyzing cooperation between firms", September 1987.	88/03	James TEBOUL	"De-industrialize service for quality", January 1988.
87/34	Kasra FERDOVS and Arnoud DE MEYER	"European manufacturers: the dangers of complacency. Insights from the 1987 European manufacturing futures survey, October 1987.	88/04	Susan SCHNEIDER	"National vs. corporate culture: implications for human resource management", January 1988.
87/35	P. J. LEDERER and J. P. THISSE	"Competitive location on networks under discriminatory pricing", September 1987.	88/05	Charles WYPLOSZ	"The swinging dollar: is Europe out of step?", January 1988.
87/36	Manfred KETS DE VRIES	"Prisoners of leadership", Revised version October 1987.	88/06	Reinhard ANGELMAR	"Les conflits dans les canaux de distribution", January 1988.
87/37	Landis GABEL	"Privatization: its motives and likely consequences", October 1987.	88/07	Ingemar DIERICKX and Karel COOL	"Competitive advantage: a resource based perspective", January 1988.
87/38	Susan SCHNEIDER	"Strategy formulation: the impact of national culture", October 1987.	88/08	Reinhard ANGELMAR and Susan SCHNEIDER	"Issues in the study of organizational cognition", February 1988.
87/39	Manfred KETS DE VRIES 1987	"The dark side of CEO succession", November 1987	88/09	Bernard SINCLAIR- DESGAGNÉ	"Price formation and product design through bidding", February 1988.
87/40	Carmen MATUTES and Pierre REGIBEAU	"Product compatibility and the scope of entry", November 1987	88/10	Bernard SINCLAIR- DESGAGNÉ	"The robustness of some standard auction game forms", February 1988.
			88/11	Bernard SINCLAIR- DESGAGNÉ	"When stationary strategies are equilibrium bidding strategy: The single-crossing property", February 1988.

88/12	Spyros MAKRIDAKIS	"Business firms and managers in the 21st century", February 1988	88/29	Naresh K. MALHOTRA, Christian PIMSON and Arun K. JAIN	"Consumer cognitive complexity and the dimensionality of multidimensional scaling configurations", May 1988.
88/13	Manfred KETS DE VRIES	"Alexithymia in organizational life: the organization man revisited", February 1988.	88/30	Catherine C. ECKEL and Theo VERMAELEN	"The financial fallout from Chernobyl: risk perceptions and regulatory response", May 1988.
88/14	Alain NOEL	"The interpretation of strategies: a study of the impact of CEOs on the corporation", March 1988.	88/31	Sumantra GHOSHAL and Christopher BARTLETT	"Creation, adoption, and diffusion of innovations by subsidiaries of multinational corporations", June 1988.
88/15	Anil DEOLALIKAR and Lars-Hendrik RÖLLER	"The production of and returns from industrial innovation: an econometric analysis for a developing country", December 1987.	88/32	Kasra FERDOVS and David SACKRIDER	"International manufacturing: positioning plants for success", June 1988.
88/16	Gabriel HAVAVINI	"Market efficiency and equity pricing: international evidence and implications for global investing", March 1988.	88/33	Mihkel M. TOMBAK	"The importance of flexibility in manufacturing", June 1988.
88/17	Michael BURDA	"Monopolistic competition, costs of adjustment and the behavior of European employment", September 1987.	88/34	Mihkel M. TOMBAK	"Flexibility: an important dimension in manufacturing", June 1988.
88/18	Michael BURDA	"Reflections on 'Vault Unemployment' in Europe", November 1987, revised February 1988.	88/35	Mihkel M. TOMBAK	"A strategic analysis of investment in flexible manufacturing systems", July 1988.
88/19	M.J. LAWRENCE and Spyros MAKRIDAKIS	"Individual bias in judgements of confidence", March 1988.	88/36	Vikas TIDREVALA and Bruce BUCHANAN	"A Predictive Test of the NBD Model that Controls for Non-stationarity", June 1988.
88/20	Jean DERMINE, Damien NEVEN and J.F. THUISSE	"Portfolio selection by mutual funds, an equilibrium model", March 1988.	88/37	Murugappa KRISHNAN and Lars-Hendrik RÖLLER	"Regulating Price-Liability Competition To Improve Welfare", July 1988.
88/21	James TEBOUL	"De-industrialize service for quality", March 1988 (88/03 Revised).	88/38	Manfred KETS DE VRIES	"The Motivating Role of Envy: A Forgotten Factor in Management", April 88.
88/22	Lars-Hendrik RÖLLER	"Proper Quadratic Functions with an Application to AT&T", May 1987 (Revised March 1988).	88/39	Manfred KETS DE VRIES	"The Leader as Mirror: Clinical Reflections", July 1988.
88/23	Sjur Didrik FLAM and Georges ZACCOUR	"Equilibres de Nash-Cournot dans le marché européen du gaz: un cas où les solutions en boucle ouverte et en feedback coïncident", Mars 1988	88/40	Josef LAKONISNIK and Theo VERMAELEN	"Anomalous price behavior around repurchase tender offers", August 1988.
88/24	B. Espen ECKBO and Hervig LANGOHR	"Information disclosure, means of payment, and takeover premia. Public and Private tender offers in France", July 1985, Sixth revision, April 1988.	88/41	Charles VYPLOSZ	"Asymmetry in the EMS: intentional or systemic?", August 1988.
88/25	Everette S. GARDNER and Spyros MAKRIDAKIS	"The future of forecasting", April 1988.	88/42	Paul EVANS	"Organizational development in the transnational enterprise", June 1988.
88/26	Sjur Didrik FLAM and Georges ZACCOUR	"Seal-competitive Cournot equilibrium in multistage oligopolies", April 1988.	88/43	B. SINCLAIR-DESGACHE	"Group decision support systems implement Bayesian rationality", September 1988.
88/27	Murugappa KRISHNAN and Lars-Hendrik RÖLLER	"Entry game with resalable capacity", April 1988.	88/44	Essam MAHMOUD and Spyros MAKRIDAKIS	"The state of the art and future directions in combining forecasts", September 1988.
88/28	Sumantra GHOSHAL and C. A. BARTLETT	"The multinational corporation as a network: perspectives from interorganizational theory", May 1988.	88/45	Robert KORAJCZYK and Claude VIALLET	"An empirical investigation of international asset pricing", November 1986, revised August 1988.
			88/46	Yves DOZ and Amy SHUEN	"From intent to outcome: a process framework for partnerships", August 1988.

88/47	Alain BULTEZ, Els GIJSBREGHTS, Philippe NAERT and Piet VANDEN ABEELE	"Asymmetric cannibalism between substitute items listed by retailers", September 1988.	88/63	Fernando NASCIMENTO and Wilfried R. VANBONACKER	"Strategic pricing of differentiated consumer durables in a dynamic duopoly: a numerical analysis", October 1988.
88/48	Michael BURDA	"Reflections on 'Vault unemployment' in Europe, II", April 1988 revised September 1988.	88/64	Kasra FERDOVS	"Charting strategic roles for international factories", December 1988.
88/49	Nathalie DIERKENS	"Information asymmetry and equity issues", September 1988.	88/65	Arnoud DE MEYER and Kasra FERDOVS	"Quality up, technology down", October 1988.
88/50	Rob VEITZ and Arnoud DE MEYER	"Managing expert systems: from inception through updating", October 1987.	88/66	Nathalie DIERKENS	"A discussion of exact measures of information asymmetry: the example of Myers and Majluf model or the importance of the asset structure of the firm", December 1988.
88/51	Rob VEITZ	"Technology, work, and the organizations: the impact of expert systems", July 1988.	88/67	Paul S. ADLER and Kasra FERDOVS	"The chief technology officer", December 1988.
88/52	Susan SCHNEIDER and Reinhard ANGELMAR	"Cognition and organizational analysis: who's winding the store?", September 1988.	1989		
88/53	Manfred KETS DE VRIES	"Whatever happened to the philosopher-king: the leader's addiction to power", September 1988.	89/01	Joyce K. BYRER and Tawfik JELASSI	"The impact of language theories on DSS dialog", January 1989.
88/54	Lars-Hendrik RÖLLER and Mihkel M. TOMBAK	"Strategic choice of flexible production technologies and welfare implications", October 1988	89/02	Louis A. LE BLANC and Tawfik JELASSI	"DSS software selection: a multiple criteria decision methodology", January 1989.
88/55	Peter BOSSAERTS and Pierre HILLION	"Method of moments tests of contingent claims asset pricing models", October 1988.	89/03	Beth H. JONES and Tawfik JELASSI	"Negotiation support: the effects of computer intervention and conflict level on bargaining outcome", January 1989.
88/56	Pierre HILLION	"Size-sorted portfolios and the violation of the random walk hypothesis: Additional empirical evidence and implication for tests of asset pricing models", June 1988.	89/04	Kasra FERDOVS and Arnoud DE MEYER	"Lasting improvement in manufacturing performance: In search of a new theory", January 1989.
88/57	Wilfried VANBONACKER and Lydia PRICE	"Data transferability: estimating the response effect of future events based on historical analogy", October 1988.	89/05	Martin KILDUPP and Reinhard ANGELMAR	"Shared history or shared culture? The effects of time, culture, and performance on institutionalization in simulated organizations", January 1989.
88/58	B. SINCLAIR-DESGAGNE and Mihkel M. TOMBAK	"Assessing economic inequality", November 1988.	89/06	Mihkel M. TOMBAK and B. SINCLAIR-DESGAGNE	"Coordinating manufacturing and business strategies: I", February 1989.
88/59	Martin KILDUPP	"The interpersonal structure of decision making: a social comparison approach to organizational choice", November 1988.	89/07	Damien J. NEVEN	"Structural adjustment in European retail banking. Some view from industrial organisation", January 1989.
88/60	Michael BURDA	"Is mismatch really the problem? Some estimates of the Chelwood Gate II model with US data", September 1988.	89/08	Arnoud DE MEYER and Hellmut SCRÜTTE	"Trends in the development of technology and their effects on the production structure in the European Community", January 1989.
88/61	Lars-Hendrik RÖLLER	"Modelling cost structures: the Bell System revisited", November 1988.	89/09	Damien NEVEN, Carmen MATUTES and Marcel CORSTJENS	"Brand proliferation and entry deterrence", February 1989.
88/62	Cynthia VAN HULLE, Theo VERMAELEN and Paul DE VOUTERS	"Regulation, taxes and the market for corporate control in Belgium", September 1988.	89/10	Nathalie DIERKENS, Bruno GERARD and Pierre HILLION	"A market based approach to the valuation of the assets in place and the growth opportunities of the firm", December 1988.

- 89/11 Manfred KETS DE VRIES and Alain NOEL "Understanding the leader-strategy interface: application of the strategic relationship interview method", February 1989.
- 89/12 Wilfried VANHONACKER "Estimating dynamic response models when the data are subject to different temporal aggregation", January 1989.
- 89/13 Manfred KETS DE VRIES "The impostor syndrome: a disquieting phenomenon in organizational life", February 1989.
- 89/14 Reinhard ANGELMAR "Product innovation: a tool for competitive advantage", March 1989.
- 89/15 Reinhard ANGELMAR "Evaluating a firm's product innovation performance", March 1989.
- 89/16 Wilfried VANHONACKER, Donald LEHMANN and Fareena SULTAN "Combining related and sparse data in linear regression models", February 1989
- 89/17 Gilles AMADO, Claude FAUCHEUX and André LAURENT "Changement organisationnel et réalités culturelles: contrastes franco-américains", March 1989
- 89/18 Srinivasan BALAK-RISHNAN and Mitchell KOZA "Information asymmetry, market failure and joint-ventures: theory and evidence", March 1989
- 89/19 Wilfried VANHONACKER, Donald LEHMANN and Fareena SULTAN "Combining related and sparse data in linear regression models", Revised March 1989
- 89/20 Wilfried VANHONACKER and Russell WINER "A rational random behavior model of choice", Revised March 1989
- 89/21 Arnoud de MEYER and Kasra FERDOVS "Influence of manufacturing improvement programmes on performance", April 1989
- 89/22 Manfred KETS DE VRIES and Sydney PERZOW "What is the role of character in psychoanalysis?" April 1989
- 89/23 Robert KORAJCZYK and Claude VIALLET "Equity risk premia and the pricing of foreign exchange risk" April 1989
- 89/24 Martin KILDUPP and Mitchel ABOLAFIA "The social destruction of reality: Organisational conflict as social drama" April 1989
- 89/25 Roger BETANCOURT and David GAUTSCHI "Two essential characteristics of retail markets and their economic consequences" March 1989
- 89/26 Charles BEAN, Edmond MALINVAUD, Peter BERNHOLZ, Francesco GIAVAZZI and Charles WYPLOSZ "Macroeconomic policies for 1992: the transition and after", April 1989