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Management Fashion:
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This theory-development case study of the quality circle management fashion focuses on three features of management-knowledge entrepreneurs' discourse promoting or discrediting such fashions: its lifecycle, forces triggering stages in its lifecycle, and the type of collective learning it fostered. Results suggest, first, that variability in when different types of knowledge entrepreneurs begin, continue, and stop promoting fashions explains variability in their lifecycles; second, that historically unique conjunctions of forces, endogenous and exogenous to the management-fashion market, trigger and shape management fashions; and third, that emotionally charged, enthusiastic, and unreasoned discourse characterizes the upswings of management fashion waves, whereas more reasoned, unemotional, and qualified discourse characterizes their downswings, evidencing a pattern of superstitious collective learning.*

Organizational theorists who study management discourse—what is said and written about management-related issues—have focused on discourse promoting techniques for managing organizations and their employees (Abrahamson, 1989, 1997; Barley and Kunda, 1992; Guillén, 1994; Shenhav, 1995). This focus has originated in part from the claim that managers use discourse about management techniques to communicate to organizational stakeholders that their organizations conform to institutional norms mandating the use of these techniques (Meyer and Rowan, 1977). More recently, the importance of such management discourse has been further underscored by the proposition that it also enables the diffusion of management techniques across thousands of dissimilar organizations (Abrahamson, 1991). It does so by reinforcing the belief that these organizations are similar in ways that would cause them to benefit equally from adopting a management technique (Strang and Meyer, 1994). For example, discourse claiming that all U.S. organizations, like all Japanese organizations, would benefit from using so-called Japanese management techniques may have impelled the widespread diffusion of these techniques across thousands of disparate U.S. organizations during the 1980s and early 1990s. The notion that management discourse matters because it shapes the diffusion of management techniques has also drawn attention to the knowledge entrepreneurs who produce such discourse—management consultants, for example—and to their interests in disseminating discourse promoting certain management techniques in order to trigger their diffusion (DiMaggio, 1988; Abrahamson, 1996a, 1996b; Jackson, 1996; Meyer, 1996; Lamertz and Baum, 1998).

Research on management discourse focused originally on what has been called rhetorics: widely spoken and written discourses justifying the use of families of related techniques for managing employees (Abrahamson, 1989, 1997; Barley and Kunda, 1992; Guillén, 1994; Shenhav, 1995). The scientific management rhetoric, for example, promoted a family of related management techniques, such as time and motion studies, rate setting, job analysis, piece rate, and work measurement. In this article, we examine the parts of such rhetorics that promote a single technique. We focus on

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management fashions, relatively transitory collective beliefs, disseminated by the discourse of management-knowledge entrepreneurs, that a management technique is at the forefront of rational management progress.¹ We study the often-noted waves in the popularity of discourse that promotes single, fashionable management techniques and can cause their transient use by thousands of organizations.

We examine management fashions for two reasons. First, the focus in previous research has been on institutionalized organizational forms and techniques, rather than on understanding the rise and fall of uninstitutionalized or weakly institutionalized organizational forms and techniques. As Zucker (1988) noted, Hughes (1936: 180) defined institution as the "establishment of relative permanence of a distinct social sort." Initially, this and other definitions focused neoinstitutional theorists on the relatively permanent stability of institutions, deemphasizing the study of institutional change (Powell and DiMaggio, 1991; Hirsch and Lounsbury, 1997). As Scott (1995) noted, neoinstitutionalists have begun studying change in terms of how institutional permanence emerges or fails to emerge (e.g., Rowan, 1982; Cole, 1985, 1989; Brint and Karabel, 1991), how it diffuses and is reproduced despite environmental shocks (e.g., Tolbert and Zucker, 1983), and how it breaks down through a process of deinstitutionalization (e.g., Oliver, 1992; Davis and Thompson, 1994). The focus has remained, however, on changes influencing relatively permanent stability in institutionalized practices, rather than on relatively constant transience in practices that are not institutionalized, such as the relatively constant transience in the popularity of fashionable management discourse promoting various management techniques (Abrahamson, 1991; Tolbert and Zucker, 1996).

This deemphasis on constant transience is problematic because, as Zucker (1988: 26) noted, "Few innovations are widely adopted, by organizations or elsewhere, with most looking more like the social characterization of 'fads' than social change." Put differently, the norm may be variation in discourse promoting management techniques and the widespread selection of certain fashionable variations—job enrichment, quality circles, total quality management, business process reengineering, to name a few—followed in short order by the widespread rejection of fashions that, by definition, are not uninstitutionalized. The exception may be the retention of the rare, once-fashionable management technique, via its relatively permanent institutionalization. Thus, organizational theorists may be at risk of overemphasizing rare instances of stability in institutions, rather than the more pervasive instances of transience in fashions, even though both are important and interrelated parts of a variation-selection-retention process in the evolution of institutions (Nelson, 1995). Moreover, organizational theorists may be at risk of mistaking transient, uninstitutionalized fashions for quasi-permanent institutions. Consequently, they may fail to focus on why a small minority of fashions becomes institutionalized, whereas a majority do not, why knowledge entrepreneurs seek to deinstitutionalize institutions and replace them with a transient series of lucrative fashions, and why, therefore, temporal instability and cross-sectional diversity caused

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This definition does not imply that fashions either are or are not dysfunctional.

by constant transience characterize the use of management techniques and organizational forms.

Second, not only has there been precious little research examining why certain fashions become institutionalized and others do not (Rowan, 1982; Cole, 1985, 1989), there have also been no careful tests of recent theories (Abrahamson, 1989, 1991, 1996a, 1996b; Eccles and Nohria, 1992; Bruns-son and Olsen, 1993; Gill and Whittle, 1993; Czarniawska and Joerges, 1996; Kieser, 1997) conceptualizing why, when, and how such fashions occur in the first place. Thus, the case study that we present in this article is perhaps the first carefully documented study of why and when a single management fashion occurred and why it took the shape it did.

We draw primarily on Abrahamson's (1991, 1996a, 1996b) theory of the processes by which management-knowledge markets composed of management-knowledge suppliers and consumers, cause recurrent fashions in the popularity of a succession of management techniques. This theory leaves open three conceptual ambiguities that could be clarified with additional case-based theorizing. First, what are the overall trends of the popularity curves of management fashions, and why do they take the shapes they do? Second, to what extent are management fashions' upswings and downswings triggered and shaped by forces exogenous to the management-knowledge market, by forces endogenous to this market, or by both types of forces? Third, does fashionable management discourse evidence a pattern of real learning—carefully considered arguments triggering the onset of the fashion, with counterfactual evidence triggering its decline—or does the discourse evidence superstitious learning, emotional outbursts of unrealistic enthusiasm at the onset followed by disillusionment in the decline? We attempt to answer these questions by examining the discourse that promoted one management technique, quality circles—small groups of employees that meet regularly, without managerial supervision, to discuss ways of enhancing the efficiency of operations and the quality of outputs—and using that case to elaborate a theory of management fashion.

A THEORY OF MANAGEMENT FASHION

Abrahamson's (1991, 1996a, 1996b) theory of management fashion distinguished rational from progressive norms governing the choice of management techniques. Rational normative expectations are that management techniques will be rational (i.e., efficient means to important ends), whereas progressive normative expectations are that management techniques will progress over time (i.e., will be replaced repeatedly by new and improved techniques). These norms create a market for discourse disseminating rational, progressive management knowledge. The discourses contain labels that denote particular management techniques and specify important organizational goals and the means of attaining them most efficiently by using these techniques. The discourse promoting what it labels "quality circles," for example, theorizes important organizational goals, achieving greater quality and labor productivity, as well as the means of achieving these goals efficiently by using such quality

circles. A community of interrelated knowledge industries, populated by knowledge organizations and idea entrepreneurs, market and supply this discourse to a variety of knowledge consumers. Forces exogenous to knowledge markets shape demand for this discourse, as do endogenous forces exerted by the knowledge community. Based on this theory, the management fashion setting process is defined as the process by which management-knowledge entrepreneurs continuously redefine both their and fashion followers' collective beliefs about which management techniques are at the forefront of rational management progress (Abrahamson, 1996a).

Lifecycles

Discourse. Most articles on management fashion describe a distinct lifecycle for fashionable management discourse: a relatively long period of dormancy, after a management technique has been invented, reinvented, or rediscovered, is followed by a short-lived, bell-shaped, symmetric popularity curve (Abrahamson, 1991, 1996a, 1996b; Gill and Whittle, 1993; Huczinski, 1993). There is no clear evidence, however, that management fashions have a dormancy phase, that they have a relatively short-lived, wavelike pattern, or that this pattern is symmetrical. Moreover, it is a mystery not only whether but also why dormancy, transitoriness, and symmetry would obtain. As Rogers' (1995: 104–114) seminal review of the diffusion literature indicates, it provides little guidance in addressing such questions because it generally ignores the full diffusion-rejection lifecycle of innovations. This lack of both theory and evidence motivates the first question addressed in this study:

Research question #1: What are the shapes of the popularity curves of management fashions and what explains these shapes?

Diffusion. How might the lifecycle of discourse about a management technique relate to the lifecycle of this technique's diffusion across organizations? The literature bearing on the diffusion of management techniques has examined both the rate and extent of their diffusions as well as the sequencing of their adoptions (cf. Tolbert and Zucker, 1983; Abrahamson and Rosenkopf, 1993, 1997; Haveman, 1993) or rejection (Greve, 1995). But Strang and Meyer (1994) criticized this literature for its narrow, realist focus on how diffusion is channeled by interorganizational relations, whether they are communication links, competitive rivalries, geographic proximity, or reputation orderings. They suggested that discourse influences diffusion because of what they call "theorization": "both the development and specification of abstract categories, as well as the formulation of patterned relationships [among these categories] such as chains of cause and effect" in discourse (p. 104). The development and specification of abstract categories in theorizing discourse about management techniques define entire categories of organizations (e.g., U.S. firms) as similar in that they all suffer from a common environmentally induced performance gap (e.g., relatively low productivity and quality compared with Japanese firms) and could benefit from adopting one category of innovations to narrow such a gap (e.g., quality circles). The formulation of patterned relationships, in this theorizing discourse, explains why these environmental

changes caused a performance gap across organizations and why adopting a particular management technique can narrow this performance gap. Thus, the production of discourse about a management technique can promote the belief that entire categories of organizations will benefit from adopting this innovation, thereby increasing greatly the scope and speed of its diffusion, but it is unclear whether the diffusion of a management technique, in turn, causes an increase in the production of theorizing discourse about this technique. Abrahamson (1991) posited the existence of a positive feedback loop linking the amount of discourse promoting a management technique and its diffusion. In one part of the loop, the adoption or rejection of a management technique alerts management-knowledge entrepreneurs to a market for discourse promoting or debunking this technique and prompts them to produce more or less of such discourse. In the other part of the loop, this discourse prompts more organizations to adopt or reject this technique. This positive feedback loop cycles repeatedly between discourse and diffusion, thus raising the question:

Research question #2: Does the lifecycle of discourse promoting a fashionable management technique coevolve with the lifecycle of its diffusion across organizations?

Triggers

In Abrahamson's (1996a, 1996b) theory of management fashion, forces both exogenous and endogenous to the management-knowledge market can trigger and shape fashions. The theory does not clarify, however, whether either or both types of forces affect management fashions, and how they might interact to do so. We assume that under general norms of rationality and progress, specific beliefs exist that certain components of organizations—their employees, structures, or strategies, for instance—must be controlled using progressive and rational techniques designed explicitly to manage these components (Meyer and Rowan, 1977). These beliefs create what we call management fashion niches in management discourse: recurrent sources of demand for new discourse promoting fashionable management techniques for rationally managing particular types of organizational components. The niche for fashionable employee-management techniques, for example, is a recurrent source of demand for discourse promoting purportedly new and improved rational techniques for managing employees, such as quality circles. One discourse niche can accommodate a succession of fashionable management techniques serving varied technical, social, or political purposes. The employee-management fashion niche, for example, has accommodated fashionable techniques for union avoidance, higher productivity, and better quality, to name a few.

Exogenous explanations suggest that forces originating from outside the management-knowledge market either create or destroy management fashion niches or trigger demand for new types of techniques within an existing niche. Endogenous explanations suggest, instead, that under general norms of progress, knowledge entrepreneurs repeatedly refill existing niches with purportedly new and improved management techniques, regardless of exogenous forces. It is

possible that both processes could coexist, exogenous forces opening up or destroying fashion niches and endogenous forces refilling niches as long as they persist.

Endogenous triggers. We assume that each fashion niche has a finite carrying capacity in terms of the number of fashions it can sustain, because knowledge consumers can only attend to a limited number simultaneously. We also assume that alert and competitive management knowledge entrepreneurs rapidly refill management fashion niches to near maximal capacity because of the great financial returns from being among the first knowledge entrepreneurs to do so. It follows that at least two subtypes of endogenous triggers can set off a management fashion. First, collapse triggers, whereby the collapse within a fashion niche of demand for a fashion because it does not work or because it has become passé, free space within that niche into which vigilant knowledge entrepreneurs can launch the next fashion. So, the collapse of one fashion triggers the next. Second, are elimination triggers, wherein a purportedly new and improved fashion forces out or eliminates an older fashion in the niche.

Although collapse and elimination explanations differ, in both, the lifecycle of one management fashion should be related to the lifecycle of the next management fashion taking its place in that niche. So, the lifecycle of fashions in management techniques belonging to the same management fashion niche (e.g., the employee-management fashion niche) should tend to be related, whereas the lifecycle of techniques that do not belong to the same niche should not. Business process reengineering might replace total quality management, for example, but international joint ventures would not. Together, these arguments suggest an important question about the interrelation of the lifecycles of succeeding management fashions:

Research question #3: Does the downswing in one management fashion in a management fashion niche coincide with the upswing of the next fashion in that niche?

Explanations that focus only on exogenous triggers suggest that each force exogenous to the management-fashion market triggers independently when a fashion niche is created, refilled, or destroyed and when, therefore, fashions populating that niche emerge or disappear. Thus exogenous explanations suggest, in answer to question #3, that the lifecycles of management fashions remain independent of each other.

Exogenous triggers. The theory of management fashion assumes that the lifecycles of such fashions are loosely coupled to major technoeconomic environmental changes exogenous to the management-knowledge market (Abrahamson, 1996a, 1996b). In this article, we assume, more specifically, that at any given time, many such exogenous forces cause numerous organizations to experience a variety of different types of gaps between the performances they aspire to and those that they achieve (Hilgartner and Bosk, 1988), although every widely experienced performance gap does not trigger a management fashion designed to narrow it (Smelser, 1962; Turner and Killian, 1986). Gaps that many

consumers of management fashions neglect entirely, or place at the bottom of their strategic agenda, cannot trigger a demand for fashions promoting techniques purporting to eliminate these gaps for many organizations (Dutton and Jackson, 1987), nor can gaps perceived as resulting from random, unalterable, or organization-specific causes. For example, in the period after World War II, increasing global competition sequentially and progressively buffeted a number of key U.S. industries (steel, textile, machine tools, consumer electronics, and automobiles), causing a broad variety of performance gaps across organizations in these industries (Lawrence and Dyer, 1983). As long as performance gaps caused by growing global competition were ignored or were attributed to particular organizations' or executives' idiosyncrasies, to random events, or to unalterable historical forces, these gaps could not trigger management fashions purporting to narrow them. Management fashions for productivity and quality-enhancing Japanese management techniques, for example, were triggered only when a rash of discourse theorized that Japan posed a major competitive threat to the U.S., attributed this threat to the superior productivity and quality achieved by Japanese firms using particular productivity-enhancing and quality-enhancing management techniques, and suggested that these quality and productivity performance gaps could be narrowed by using Japanese management techniques. Thus, exogenous forces that do trigger management fashions are the few, among the many, that management discourse both pushes to the top of many fashion consumers' agendas and relates to organizational performance gaps that management techniques could eliminate. This argument prompted us to ask,

Research question #4: Does the conjunction in time of both a widespread, environmentally induced organizational performance gap and a surge of discourse highlighting this gap trigger a management fashion purporting to narrow this gap?

Learning Processes

Exogenous trigger explanations suggest that it is both forces emanating from outside the management-knowledge market and the theorization of their impact through management discourse that triggers management fashions. At least two types of explanations illustrate how this might happen. One describes processes capable of generating real learning, in which management discourse properly specifies the connection between actions (adopting a management technique) and outcomes (closing an environmentally induced organizational performance gap). Other explanations describe processes that tend to generate what Levitt and March (1988: 325) called "superstitious learning," in which "the subjective experience of learning is compelling, but the connections between actions and outcomes are misspecified." This distinction motivates the third question we addressed in this study: does fashionable management discourse evidence a pattern of real learning—carefully considered arguments triggering the upswing of the fashion wave and counterfactual evidence triggering its downswing, or does the discourse evidence superstitious learning—emotional outbursts of unrealistic enthusiasm in the upswing followed by disillusionment in the downswing?

Superstitious learning. The superstitious-learning explanation suggests that sociopsychological forces mediate the relation between environmentally induced performance gaps and fashion demand. Environmental changes open up performance gaps across organizations, but these gaps generate anxiety, which drives fashion demand and supply (Smelser, 1962; Klapp, 1969; Turner and Killian, 1986). Widespread anxiety causes demand for discourse that identifies alterable causes of the anxiety and specifies certain simple, all-powerful, and quasi-magical techniques that promise to blunt these causes and eliminate the sources of the anxiety (Smelser, 1962; Turner and Killian, 1986). Collective anxiety and the drive to find quasi-magical, instantaneous, all-powerful management solutions may spread to management-knowledge entrepreneurs, causing them to generate emotion-laden discourse promoting such solutions. Alternatively, management-knowledge entrepreneurs may remain dispassionate, but sensing nascent demand by anxious fashion followers, they produce discourse that amplifies these anxieties to launch magical, anxiety-reducing solutions more easily (McAdam, McCarthy, and Zald, 1988). These efforts are not necessarily cynical and manipulative but may result from management-knowledge entrepreneurs' belief that only enthralling rhetoric can loosen the grip of past practices and open many organizations and their managers to new management approaches. Either way, these arguments focused us on the question,

Research question #5: Does unreasoned, emotional, unqualifiedly positive discourse characterize the upswing phase in waves of fashionable discourse about a management technique?

Superstitious-learning explanations suggest that fashions may collapse of their own accord, rather than being eliminated by the next fashion. The euphoria that impels initial diffusion of the fashion cannot be sustained, causing declining fashion demand as fashion followers lose interest (Abrahamson, 1991). Alternatively, the quick-fix techniques that become fashionable may be incapable of narrowing the performance gaps they claim to address, and disappointment invariably sets in, prompting a more careful examination of these solutions, declining demand for them, and ultimately, their widespread rejection (Smelser, 1962; Gill and Whittle, 1993). Thus, we examined the question,

Research question #6: Does reasoned, unemotional, qualified discourse characterize the downswing phase in waves of fashionable discourse about a management technique?

Real learning. Unlike superstitious-learning explanations, real-learning explanations specify a direct coupling between environmental changes, the widening or narrowing of performance gaps, increasing or decreasing demand for management fashions promising to narrow these gaps, and the supply of discourse championing such techniques. Emotions as a causative factor play no roles in these accounts of what Coats and Colander (1985) called the efficient market for ideas. Rather, carefully considered arguments trigger the upswing of the wave, and counterfactual evidence triggers its downswing, suggesting, in answer to questions #5 and #6, that reasoned, unemotional, qualified discourse will characterize both the upswing and downswing phases in waves of fashionable discourse about a management technique.

METHODS

Meyerson and Katz (1957: 594) wrote that "the study of fads and fashions may serve the student of social change much as the study of fruit flies has served the geneticists: neither the sociologist nor the geneticist has to wait long for a new generation to arrive." This embarrassment of riches, however, creates its own problem, what management fashion to begin studying. A mixture of analytical, historical, and practical considerations guided our choice.

We focused on management techniques in the employee-management fashion niche. A number of authors have distinguished discourse promoting two different types of employee-management techniques (Scott, 1995; Kaufman, 1989; Guillén, 1994; Abrahamson, 1997). What Barley and Kunda (1992) called rational techniques are based on the assumption that work processes can be formalized and rationalized with the goal of optimizing labor productivity, as can the reward systems that guarantee recalcitrant employees' adherence to these formal processes. What they called normative techniques are based on the assumption that employees can be rendered more productive by shaping their thoughts and capitalizing on their emotions. Research indicates that the early 1970s marked the beginning of a swing from rational to normative discourse (Barley and Kunda, 1992), whereas the early 1990s marked the onset of a swing back to rational discourse, as evidenced by rational discourse promoting techniques such as business process reengineering (Abrahamson, 1997). Consequently, we focused on the 1970s to the 1990s.

Four major employee-management fashion waves rose and fell in this period: job enrichment, quality circles, total quality management, and business process reengineering (Cole, 1979, 1989). We focused on the second major employee-management fashion from this period, quality circles, so that we could examine whether its lifecycle was influenced by the previous employee-management fashion, job enrichment. Practical considerations also drove us to focus on quality circles, because we could obtain data on a moderately sized, full wave of discourse, in computer-readable format, making it possible both to read all this discourse and to use computer assisted text analysis to analyze its evolution. This would have been impossible had we focused on earlier fashions, such as job enrichment, that antedate the computerization of articles' texts, or later fashions, such as total quality management or business process reengineering, that are too big and have not yet undergone a full fashion cycle.

Data and Analysis

Lifecycles. In question #1, we asked about the lifecycle of management discourse about a management fashion. In terms of quality circles, we ask how and why the volume of discourse that management-knowledge entrepreneurs used to promote quality circles rose and fell following a particular pattern. To measure the volume of discourse, we counted the number of articles listed under the quality circle subject heading in ABI Inform from 1977, when the first quality circle article appears in this database, to 1995 (see Abrahamson, 1989, 1997; Barley and Kunda, 1992; Shenhav, 1995

for similar approaches). We used subject headings for two reasons. First, we compared this search strategy to a second strategy by which we searched electronically the titles and abstracts of all ABI Inform articles for word strings denoting quality circles: "QC(s)," "QCC(s)," "quality control circle(s)," and "quality circle(s)." These searches yielded a second set of articles. There was an 88.7 percent overlap between this set and the set obtained with our first search strategy. The remaining 11.3 percent of articles usually pertained to different subjects. Second, we learned from conversations with several ABI Inform content analysts that ABI Inform's assignment of articles to subject headings, like the "quality circle" heading, is accomplished and checked by trained and experienced content-analysts, working in industry- and function-specific teams.

The total number of articles indexed in ABI Inform increased markedly from 1974 to 1995. To adjust for this growth, we multiplied the number of quality circle articles in any one year by the ratio between the total number of articles indexed in 1984 and the total number of articles indexed that year. This adjustment technique is analogous to the technique used by economists to transform nominal into real currency amounts, thereby factoring out the effect of inflation. We used a similar adjustment for every other article count in this study.

In answering question #1, we were interested not only in the shape of management fashions' popularity curves but also in why they had these shapes. We explored the possibility that the quality circle fashion's distinctive shape was caused by when different types of management-knowledge-producing publications—more or less academically oriented ones, notably—began, continued, and stopped promoting this fashion. A characteristic that distinguishes more academic publications, in which mostly scholars publish, from popular-press journals, in which mostly non-academics publish, is that the former publish articles that cite references to previous articles on the topic, whereas the latter do not. We distinguished three classes of publications: (1) academic journals (e.g., *Academy of Management Review*), which publish articles that always contain references, (2) popular-press publications (e.g., *Business Week*), which never contain references, and (3) semi-academic journals (e.g., *Harvard Business Review*), which sometimes contain references. In answering question #2, we inquired about the lifecycle of the diffusion of quality circles. We used surveys of the adoption (Cole, 1989) and rejection of quality circles (Castorina and Wood, 1988) to measure their diffusion.

Triggers. With respect to endogenous forces, we wanted to explore (question #3) whether stages in the lifecycle of the quality circle discourse could have been triggered by stages in the lifecycle of the fashion preceding it (job enrichment) or those following it (total quality management and business process reengineering). We counted the number of articles under the job enrichment, total quality management, and business process reengineering headings in ABI Inform for the period from 1974, when the ABI Inform index was well established, to 1995 to measure the lifecycle of the discourse on these techniques. In each instance, the data re-

ported control for growth in index size, as discussed above. Because computerized article indexes do not cover the entire period of the job enrichment fashion, we also hand-counted the number of articles about job enrichment in the noncomputerized *Business Periodicals Index (BPI)* for the period from 1966, when articles with job enrichment in the title first appear in the index, to 1995.

We compared counts of articles in *BPI* and ABI Inform for both job enrichment and quality circles. The counts were virtually identical for both series, with the difference that ABI Inform tended to index roughly three times more articles than *BPI*. So we tripled the *BPI* job enrichment series to make it comparable with the quality circle, total quality management, and business process reengineering series. We also controlled for the growth in the *BPI* by multiplying the number of articles in any one year by the ratio of pages in the index in 1976 and the number of index pages in that given year (see Abrahamson, 1997).

Question #4 asked whether fashions are triggered by the conjunction in time of environmentally induced performance gaps and discourse bringing these gaps to the attention of management-knowledge consumers. We relied on historical treatments of the period, particularly Cole's (1979, 1985, 1989) treatment of the diffusion of small-group activity in Japan, Sweden, and the U.S., to examine environmentally induced organizational performance gaps that purportedly underlay the quality circle fashion. We measured the prevalence of these gaps using macroeconomic time series and the prevalence of discourse about these gaps using ABI Inform counts of articles about these gaps.

Learning. In questions #5 and #6 we asked how a fashion's discourse evolved between its upswing and downswing phases. We used ABI Inform abstracts of quality circle articles to observe how quality circle discourse evolved throughout its lifecycle. We sought to use both qualitative and quantitative approaches because they complement each other. To gather quantitative data, we constructed a measure allowing us to ascertain whether management-knowledge entrepreneurs' discourse promoted primarily real or superstitious learning. We used computer assisted text analysis (CATA). CATA programs classify words in a text that have a shared meaning into discrete content categories denoting that meaning and count the frequency of these words by category. A category frequency is assumed to reflect its cognitive centrality.² We selected the General Inquirer (GI) CATA program for this study. The GI uses the *Harvard III Psychosocial Dictionary* (Stone et al., 1966; Zull, Weber, and Mohler, 1989). It contains 70 categories derived from Osgood's semantic differential dimensions (Osgood, Suci, and Tannenbaum, 1957). The GI has been used to analyze a variety of texts (e.g., Seegmiller and Epperson, 1987; Namenwirth and Weber, 1987; Kabanoff, Waldersee, and Cohen, 1995). It has various strengths, including having greater content validity than human coders (Rosenberg, Schnurr, and Oxman, 1990) and being highly reliable between speech occasions (Schnurr, Rosenberg, and Oxman, 1993). The GI contains semantic categories for words denoting emotions, reasoning, and both positive and negative evaluation. These

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See Kabanoff and Abrahamson (1997) for a review of CATA's uses in management research and to the 1997 special issue on CATA of the *Journal of Management* for some recent examples of this research method.

categories allowed us to address research questions #5 and #6 in which we asked whether a management fashion's discourse would evolve from being more positive, unreasoned, and emotional in the upswing phase of this fashion wave to being more qualified (both positive and negative), reasoned, and unemotional in its downswing phase. Table 1 defines each category and provides examples of words that the program assigns to them.

Table 1

Harvard III Psychosocial Dictionary Content Categories

Category	Definition	Examples
Emotions	States of emotional excitement, drive states, indicators of personal relationships, gratification, despair, and aggression.	admire, angry, dream, detest, felt, habit
Thought	Perceptions and awareness, cognitive processes, similarity, negation, cause-effect relationships.	alike, appear, cause, consist, differ, not
Evaluation—positive	Synonyms for good.	admirable, clean, fair, suitable
Evaluation—negative	Synonyms for bad.	awful, bitter, cheap, crude

We reasoned that an increase in the number of articles about quality circles one year should cause an increase in the total number of words necessary to abstract articles about quality circles that year, as well as an increase in the number of these words belonging to each of the four coding categories. As expected, we found very high correlations between the yearly number of abstracted articles, the total number of words, and the number of these words belonging to each of the four categories. We wanted a yearly measure of words by category that factored out the causal effect of very large variations in the total number of words. Simple proportions do not work in these circumstances because large variations in the denominator of the proportion (the total number of words) exert an overwhelming influence on the proportion itself. Instead, we first counted the total number of words in each year y denoted by X_y , as well as the yearly total number of words in each of the four semantic categories, $c = 1, 2, 3$, or 4 , denoted by $Y_{yc \text{ actual}}$. We regressed $Y_{yc \text{ actual}}$ on X_y , to obtain a forecast, $Y_{yc \text{ forecasted}}$, of the number of words in the category c given the total number of words that year X_y . This very simple equation has the form $\beta_c X_y = Y_{yc \text{ forecasted}} + \varepsilon$. We then calculated $Y_{yc \text{ deviation from forecast}} = Y_{yc \text{ actual}} - Y_{yc \text{ forecasted}}$, that is, the yearly deviation in the number of words in each category from the number of words in that category that would have been predicted given the total number of words that year. A negative score in the positive evaluation category, for instance, indicates that there were fewer positive evaluation words in that year than would have been forecasted from the total number of words that year, so that the discourse was not particularly positive that year when compared with all other years.

To determine the reliability of abstracts as measures of the

content of the abstracted articles, we ran the CATA program both on 100 randomly selected abstracts of articles under the quality circles, total quality management, and reengineering subheadings and on the full text of these abstracted articles. We then correlated the abstract and full-text counts of words for each of the four categories. The correlation coefficients were positive and statistically significant for three of the four categories—emotion (.345, $p < .05$), reasoning (.474, $p < .001$), and evaluation positive (.307, $p < .05$)—but not for the negative evaluation category (–.018, $p = .869$). Nonsignificance may well have resulted because the reliability test of our negative-evaluation coding had low statistical power. A much larger sample of articles and abstracts would be necessary to detect reliably whether and how negative-category words are correlated in articles and abstracts. We report the results for the negative-category words below, with the caveat that this measure may prove to be unreliable.

To gather the qualitative data, we sorted the 1,287 abstracts in the ABI Inform database by publication date, and both of us read them sequentially. Our intent was to induce by simple reading the different types of rhetorical tactics used by management-knowledge entrepreneurs that might promote either real or superstitious learning during the upswing and downswing of the quality circle fashion wave.

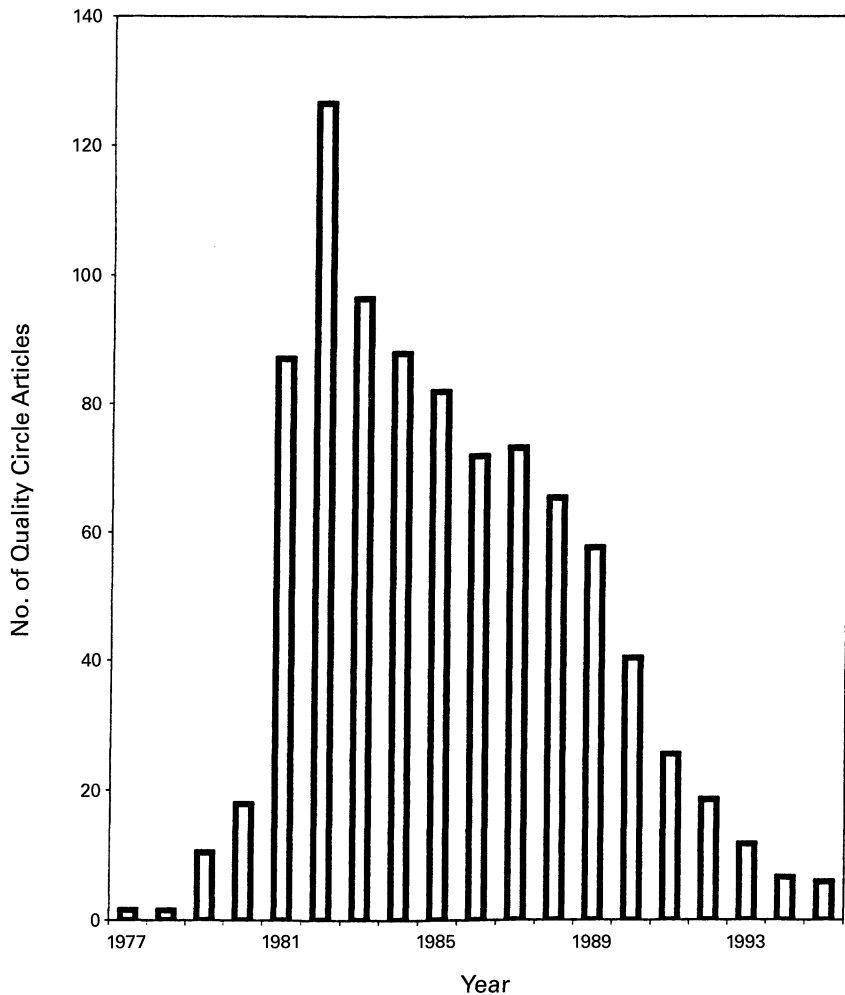
RESULTS

Lifecycles

Lifecycle of discourse. Figure 1 graphs counts of articles, adjusted for growth in the total number of abstracted articles that year, listed under the quality circles heading in the ABI Inform indexes in each of the years between 1974 and 1995. Figure 1 suggests, in answer to question #1, that the quality circle fashion had a long latency phase prior to its popularity surge. The first article promoting quality circles in the U.S. appeared in 1967 (Juran, 1967). It was followed, over the next fourteen years, by a very small and halting trickle of quality circle articles in proceedings of quality control associations until 1977 (Cole, 1989; Locke, 1996), when the number of quality circle articles began to increase. Figure 1 reveals a positively skewed, rapidly accelerating slope in the number of articles, followed by a brief and unstable apogee in 1982, giving way to a sustained decline. This quality circle fashion wave was asymmetrical, counter to general beliefs, rising much more rapidly than it fell. Figure 2 reveals that this more gradual decline occurred because the semi-academic and academic presses kept focusing on quality circles well after most of the popular business press lost interest.

Lifecycle of diffusion. Evidence also indicates, in answer to question #2, that in the early stages of the quality circle fashion, the lifecycle of discourse promoting quality circles coevolved with the lifecycle of their diffusion across organizations. A Japanese association of quality control technicians, the Union of Japanese Scientists and Engineers (JUSE), coined the term quality control circle in the early 1960s. Beginning in 1962, JUSE disseminated quality circle discourse across Japan (Ishikawa, 1968). Quality circles began defusing across Japan in 1964 (Cole, 1989). By 1967, Joseph Juran, a member of both JUSE and its U.S. ana-

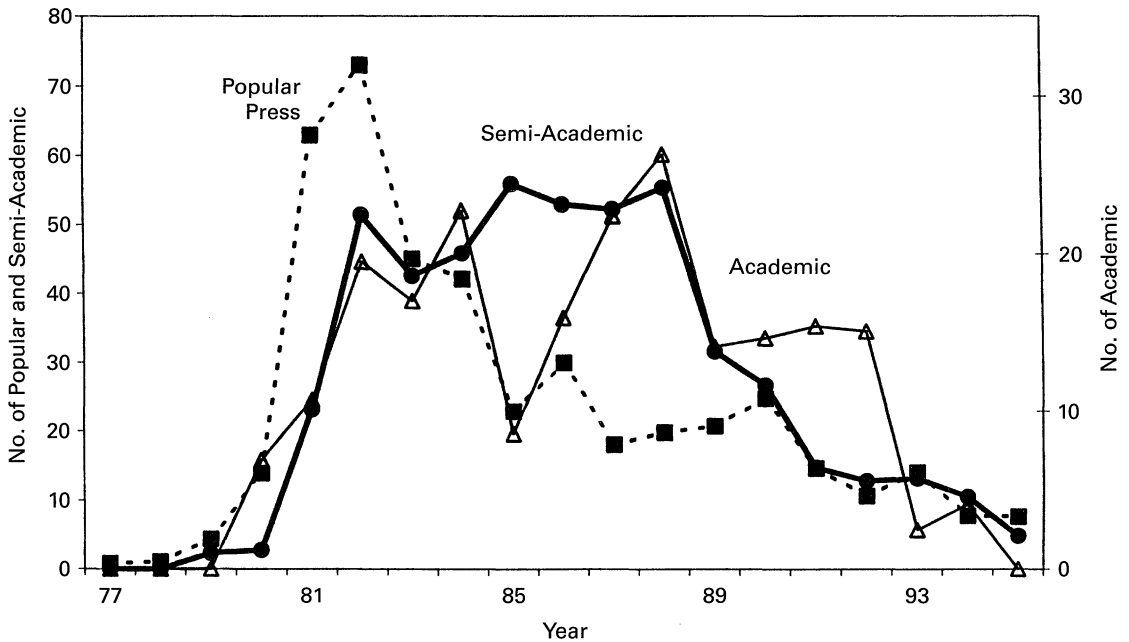
Figure 1. Adjusted number of quality circle articles.



logue, the American Society for Quality Control (ASQC), spread quality circle discourse from Japan to the U.S. (Juran, 1967). Three employees of the Missile System Division of Lockheed Aerospace Corporation who were in contact with Japan, JUSE, and the ASQC implemented quality circles at Lockheed in 1974. They left Lockheed in 1977 to found the three major quality circle consulting firms, as well as a professional association, the International Association of Quality Circles, which led in disseminating quality circle discourse across the U.S. (Beardsley and Dewar, 1977). Thus, early Japanese quality circle discourse antedated early Japanese quality circle adoption, which in turn antedated early U.S. quality circle discourse, which antedated U.S. early adoption, which antedated the widespread diffusion of quality circles and quality circle discourse in the U.S. Thus, in answer to question #2, the early history of the quality circle fashion reveals a coevolution of quality circle discourse and adoption both within Japan and from Japan to the U.S.

The evidence for coevolution is less clear beyond this early history. Figure 1 reveals an explosion in the number of articles on quality circles between 1980 and 1982. Likewise, a

Figure 2. Adjusted number of academic, semi-academic, and popular-press quality circle articles.



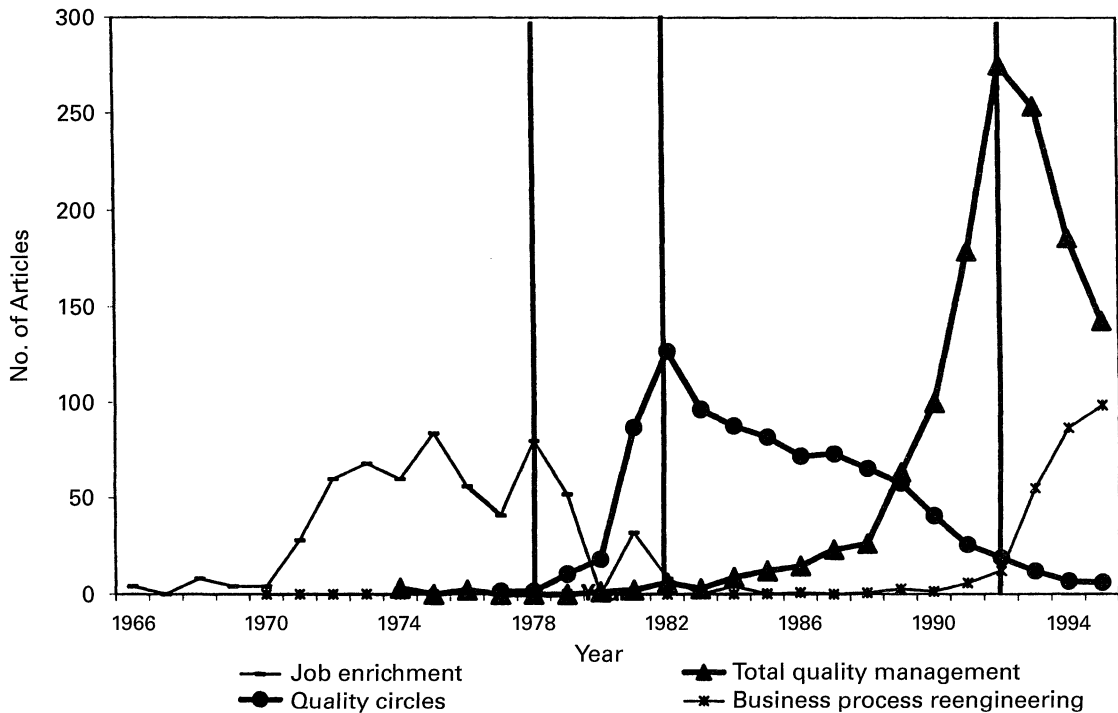
survey of 49,000 firms found that 15 percent of all U.S. firms with 500 or more employees had adopted quality circles in this period (Cole, 1989). Among large firms, those with more than 5,000 employees, 22 percent had. Lawler and Mohrman (1985) estimated that 90 percent of the *Fortune* 500 companies had adopted quality circles during this period. With respect to the downswing in the quality circle wave, figure 1 reveals a decline in the number of quality circle articles between 1983 and 1987. Likewise, a survey reveals that more than 80 percent of *Fortune* 500 firms abandoned them in this period (Castorina and Wood, 1988). Because the wave in the number of quality circle articles and their adoption coincide so closely in time, we could not, with our aggregate adoption data, determine the direction of causality between quality circle discourse and adoption.

Triggers

Figure 3 presents the results of the counts of articles, adjusted for the total number of articles abstracted, for job enrichment, quality circles, total quality management, and business process reengineering. Figure 3 suggests, in response to question #1, that all four management fashions had a latency phase followed by a wavelike, ephemeral popularity curve, although there was some variability: a nine-year apogee for job enrichment and the above-noted asymmetrical decline for quality circles.

Endogenous triggers. In response to question #3, figure 3 suggests that the lifecycles of the four management fashions studied were interdependent. It reveals a clear tendency for the sharp downswing in one fashion to antedate the sharp upswing in the next. The vertical black bars in figure 3 reveal such substitutions in 1978 (job enrichment to quality circles), 1982 (quality circles to total quality manage-

Figure 3. Adjusted number of job enrichment, quality circles, total quality management, and business process reengineering articles.



ment), and 1992 (total quality management to business process reengineering).³ Moreover, the three substitutions in figure 3 conform to what we called a collapse trigger, whereby demand for each of the new fashions resulted from collapse of demand for the previous fashion, and, therefore, the sharp decline in one fashion led to the sharp increase in the next fashion. The pattern is less consistent with what we called an elimination trigger, whereby demand for each new fashion would have eliminated demand for the previous one, and, therefore, the sharp decline in one fashion would have lagged the sharp increase in the next.

Exogenous triggers. Question #4 asked whether fashions are triggered by the conjunction in time of environmentally induced performance gaps and discourse bringing these gaps to the attention of management-fashion consumers. With respect to the first force, Cole's (1985, 1989) exhaustive comparative study of small-group activity in three countries (Japan, Sweden, and the U.S.) indicates that the U.S.'s deteriorating global, competitive position was the force, exogenous to the management fashion market, underlying the quality circle fashion (see also Cole and Tachiki, 1983). We had to examine a finer-grained picture of the U.S. competitive decline to ascertain whether and how this force triggered the quality circle fashion, since this decline did not affect all U.S. industries simultaneously and homogeneously. Rather, beginning with the end of World War II, a variety of key U.S. industries—steel, textile, machine tools, consumer electronics, and automobiles—were challenged sequentially and gradually by foreign competitors (Lawrence and Dyer,

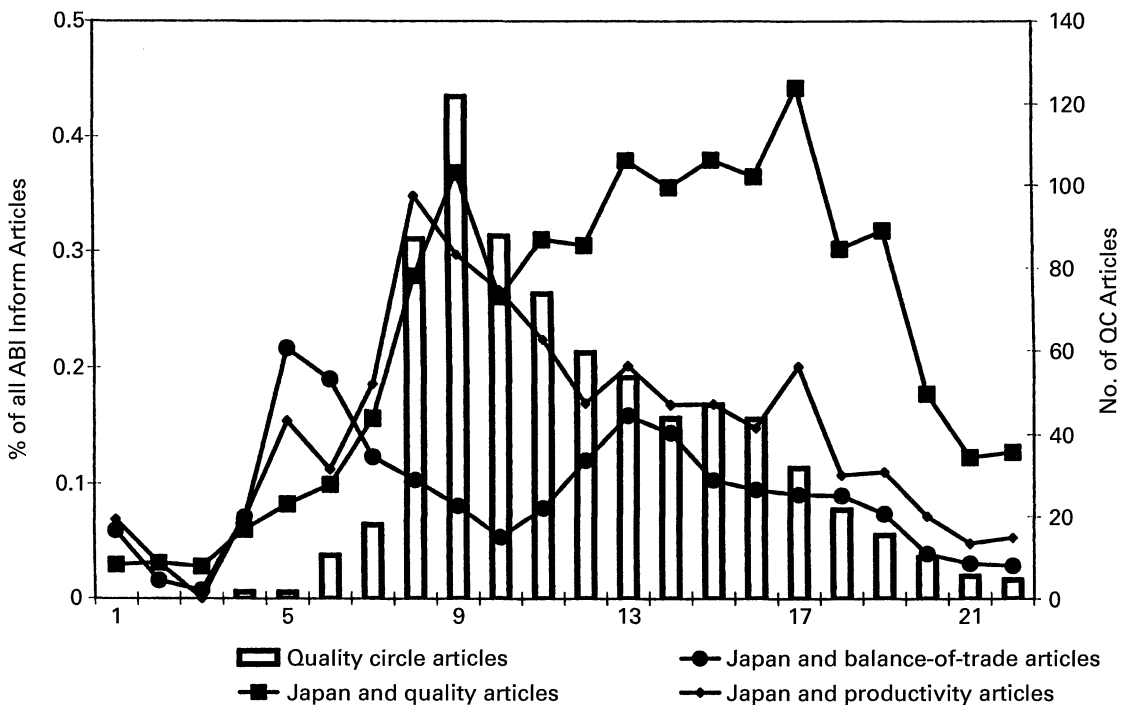
3

A recent book entitled *Beyond Reengineering* (1996), by Michael Hammer, the father of business process reengineering, suggests by its title that yet another substitution may be in the works.

1983). One of these later challenges—that presented by low-cost, high-quality, fuel-efficient Japanese cars in the late 1970s—appears to have given the quality circle fashion its idiosyncratic Japanese, small-group, productivity, and quality orientation.

The story of the U.S.'s rude awakening to and reckoning with Japanese competition in the auto industry has been well documented (Halberstam, 1986; Keller, 1989). Backed by a highly productive labor force, in the aftermath of the first (1973–1974) and second oil shocks (1979), Japanese auto producers continued making major inroads into the U.S. auto market with cheap, mid-sized, fuel-efficient cars. Japanese auto imports captured 12 percent of the U.S. market between 1976 and 1980. In 1979, for the first time, Japanese cars (Honda Accord, Toyota Camry) broke into the top ten, tending to increase their share of the U.S. top ten thereafter. Moreover, Japanese imports were not only cheap and fuel efficient, they also alerted U.S. consumers to the fact that “Made in Japan” now meant high quality. An influential period study indicated that whereas the Accord and Camry averaged less than one defect after one month of service, so-called “import busters” (Dodge Omni, Chevy Chevette, Ford Pinto) averaged 3.6 defects (National Academy of Engineering, 1982). Japanese imports’ high quality also shows up unambiguously in *Consumer Reports* data in which on a 5-point, Likert-type ranking from excellent to poor, from 1978 to 1990, Japanese automobiles averaged a high ranking of around 4, whereas U.S. automobiles averaged a low ranking of around 2. Japan’s competitive onslaught was not limited to the auto industry. The decline in the U.S.’s entire balance of trade with Japan accelerated sharply after 1976, from less than \$5 billion to more than \$60 billion in 1987.

Figure 4. Quality circle and Japanese threat articles.



Our discussion leading up to question #4 suggested that every performance gap does not trigger a fashion designed to narrow it. Discourse must highlight the gap, placing it, rather than one of many other gaps, at the top of many senior executives' agendas and engendering demand for a management technique that purports to narrow this gap. Figure 4 suggests that this condition existed. It graphs the yearly number of quality circle articles alongside the percentage of all ABI Inform articles about Japanese balance of trade, productivity, and quality. We used percentages because the number of articles about these Japanese topics was very large when compared with the number of articles on quality circles, and we wanted to keep both measures on comparable scales. Figure 4 reveals a surge of discourse highlighting Japanese balance of trade, productivity, and quality. This surge immediately antedates the upswing of the quality circle wave, suggesting that it might have contributed to triggering the wave, particularly when its discourse traced Japan's success to imitable management practices such as its quality circles (Vogel, 1979; Johnson, 1982). Thus, in answer to question #4, our results suggest that two exogenous forces triggered the quality circle fashion: (1) global competition (particularly from the Japanese auto industry), as well as the productivity and quality performance gaps it revealed in U.S. firms, and (2) the surge of discourse highlighting these performance gaps.

Learning Processes in the Fashion Upswing

Figures 5 and 6 show how the content of the quality circle discourse evolved along four semantic dimensions: positive

Figure 5. Positive and negative evaluations in quality circle articles.

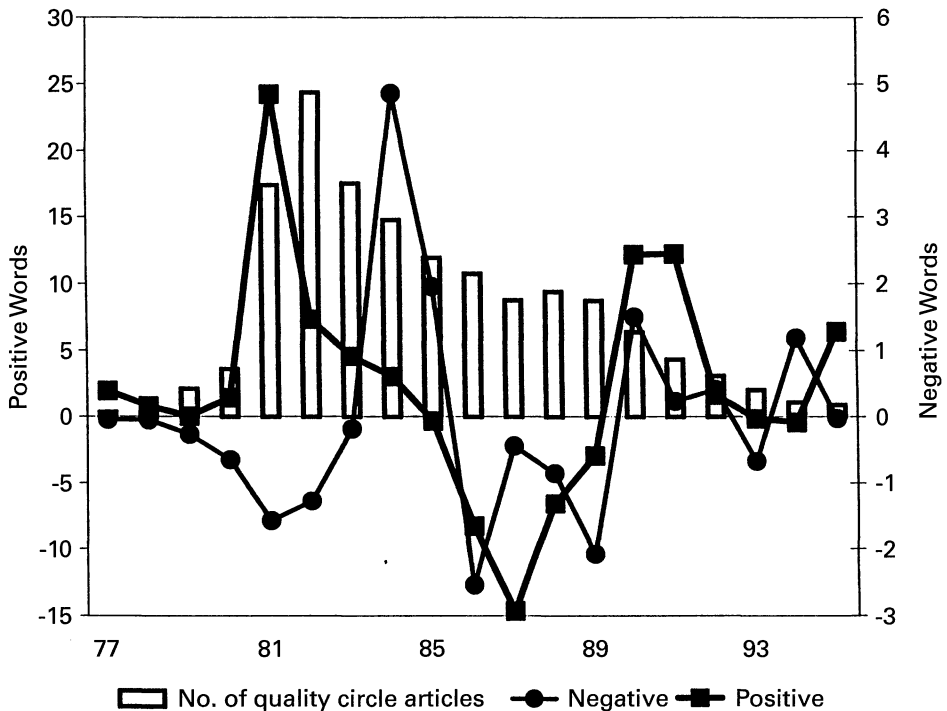
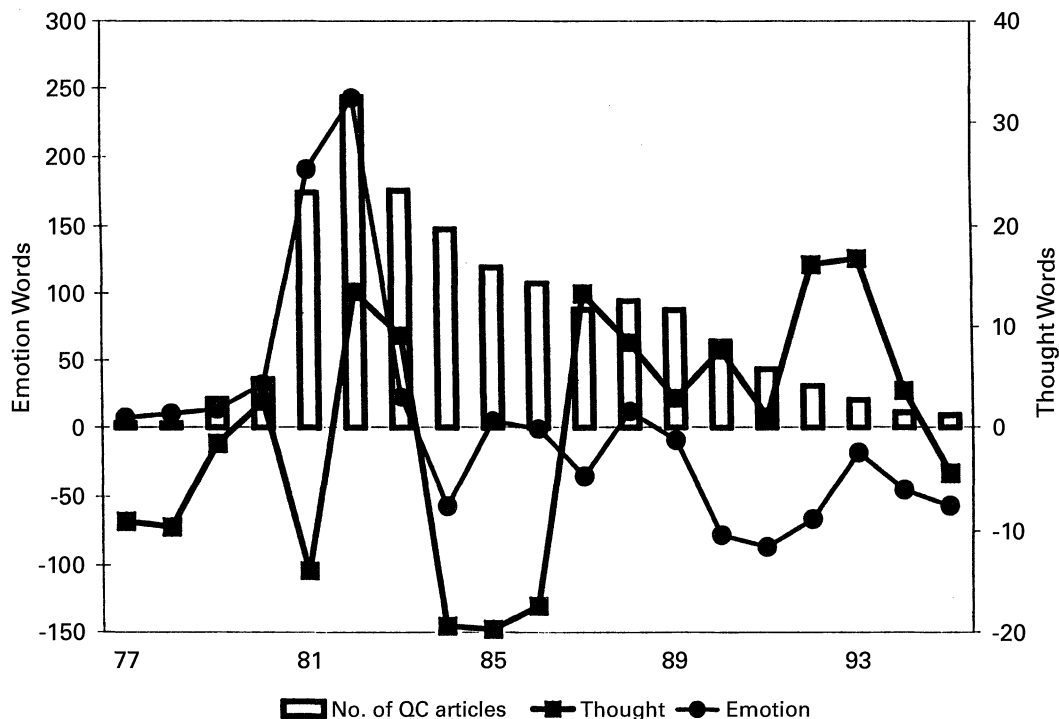


Figure 6. Emotion and thought in quality circle articles.

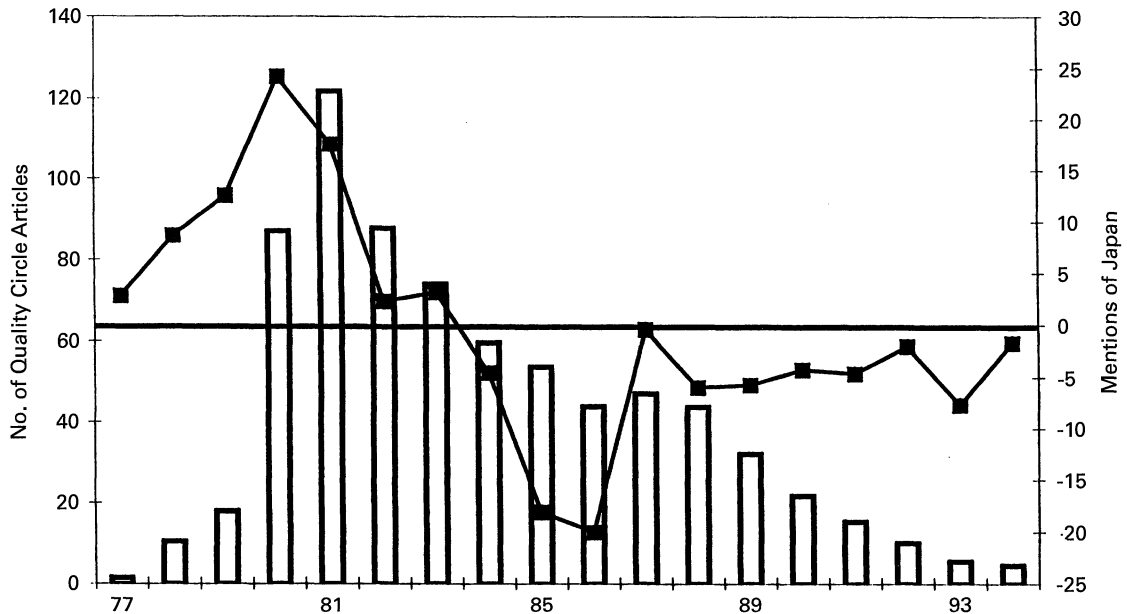


and negative evaluation, emotion, and thought. The bar graphs represent the total number of articles on quality circles, adjusted for growth in the number of articles abstracted. The lines represent the number of words in each category, controlling for the total number of words. In answer to question #5, the results of our case study indicate that discourse promoting quality circles tended to be particularly positive (fig. 5), emotionally charged, and unreasoned (fig. 6) in the upswing phase of the fashion wave. Results also indicate that this early discourse tended not to be negative, but we cannot be certain of this result because we could not establish whether the coding of the negative evaluation category was reliable.

Reading the abstracts generally supports these conclusions about the quality circle discourse, but with some important refinements that lend credence to ours and others' claims that environmental changes open up performance gaps across organizations that generate anxiety and cause demand for discourse that identifies solutions that narrow these gaps, eliminating the sources of the anxiety (Smelser, 1962; Klapp, 1969; Turner and Killian, 1986; Abrahamson, 1996b). More specifically, the discourse that launched quality circles can be broken down into three analytically distinct types. What might be called problem discourse articulates the problems facing all U.S. organizations and their managers. What might be called solution discourse explains why quality circles are the solution to these problems. Finally, what might be called bandwagon discourse reports the rapidly growing or declining number of successful or unsuccessful adopters of quality circles. Conclusions derived from

these data must remain tentative, however, because our data did not allow us to quantify the use of these rhetorical strategies at different stages of the quality circle fashions.

Figure 7. Attention to Japan in quality circle articles.



Problem discourse. The problem discourse of the quality circle fashion has a number of notable characteristics. First, it theorizes that the source of problems facing U.S. managers is the global competitive threat, particularly from Japan. Our reading of the abstracts revealed that beginning in the late 1970s and early 1980s, articles about quality circles theorized a global competitive threat to all U.S. firms. The pattern in figure 7 is consistent with our reading of the abstracts. This figure shows the change in the frequency of the word "Japan" in the abstracts, controlling for the total number of words across these abstracts, using the same technique we used for the four semantic categories. It reveals a disproportionately high attention to Japan in the early part of the quality circle fashion. The theorization of the global (particularly Japanese) competitive threat presented it in a way that could only intensify current anxiety. Consider the following two examples:

Japan and West Germany will overtake the U.S. in production per employee within a few years. This outcome, combined with the Soviet military build-up, will place the U.S. in "second-class" status. A turnaround will take place only if the U.S. largely copies the productivity techniques of the Japanese who learned them mainly from the U.S. in the first place. (*Government Executive*, 1981)⁴

Many people believe that the increases in productivity in several foreign countries threaten the lifestyle and national defense of U.S. citizens. If the U.S. is going to continue to be the most progressive nation in the world, productivity must be increased. (Ault, 1981)

Second, discourse about why the U.S. is threatened used an extremely simple quasi-theory based on a correlation-is-causation causal logic with the following structure: (1) Japanese

organizations are productive and delivering high-quality goods, (2) they are using quality circles, therefore, (3) quality circles are causing Japan's productivity successes. Typical passages have the following form:

Quality Control Circles (QCC), used in Japan to involve workers in decision-making, may be one of the keys to the higher productivity enjoyed in that country. (*Industry Week*, 1979)

The increasing awareness that U.S. industry is less able to deliver top-quality goods and services, competitively priced, is stimulating American resolve to challenge a situation in which Japan sets the standards of quality, reliability, and excellence for manufactured goods in many markets. The major vehicle in the Japanese handling of product quality and productivity has been the quality Control Circle (QC). (Zemke, 1981)

Solution discourse. Solution discourse theorized certain responses to the Japanese threat as possible and appropriate. First, it was replete with descriptions of what constitutes a quality circle. Second, it theorized how the adoption of quality circles would counter the Japanese productivity/quality threat by inverting the causal logic of problem discourse: if U.S. firms use quality circles, then they will perform as well as the Japanese. This short passage embodies the reasoning: "QCs have worked in Japan; Japanese supremacy in industrial production is testimony to that. Now, many U.S. companies are trying QCs as well" (Graham, 1981). Third, solution discourse theorized that quality circles were all-powerful in terms of their scope and impact and were problem-free. With respect to the scope of quality circles' impact, solution discourse in the upswing of the quality circle fashion presented them as universally applicable. These statements capture the tone:

The benefits that stem from the introduction of quality circles are tangible, substantial, and proven. Savings can range from large sums in huge companies to relatively small amounts that make a large difference in small firms. (Hutchins, 1981)

Proponents of QC feel it can be used not only in manufacturing, but also in scientific, clerical, engineering, and service settings. (Smith, 1981)

Quality circles were also theorized as having a powerful impact at the national, organizational, and individual level. At a national level, quality circles could bring about a national turnaround: "The success of quality circles may be instrumental in determining whether U.S. auto makers can regain sales and jobs that have been lost to the Japanese" (*Business Week*, 1981). At an organizational level, quality circles could save fortunes:

The Western world is rapidly adopting the QCCs which provide major benefits. . . . White-collar workers can comprise an effective QCC, such as the one in the purchasing department at Westinghouse which has saved over \$600,000. (Arbose, 1980)

During the first year the program operated, a number of proposals were made and implemented. In all, the company saved \$90,700. Solving the problems increased productivity and employee morale. (Candy, 1982)

At an individual level, quality circles could bring about manifold benefits:

Numerous studies have indicated that QC circles have resulted in dramatic reductions in tardiness, absenteeism, and work disruption.

The purpose of QC includes: 1. development of self and others, 2. increasing quality awareness, 3. encouraging creativity and brain power of the work force, 4. improving worker morale, 5. developing managerial ability of circle leaders, and 6. implementing and managing accepted ideas. (Yager, 1979)

J. F. Beardsley, management consultant, believes that QCs are an alternative approach to management, which will allow the industry to meet the needs of employees, clients, and prospects more effectively. . . . Some of the advantages of QCs include increased productivity, reduction of waste, improved quality of service, increased communication, better management, increased employee morale, increased job security, and better problem-solving. (Haggerty, 1981)

Finally, discourse in the quality circle fashion upswing mentioned virtually no potential problems with the use of quality circles in the U.S., or, if problems were mentioned, suggested that these problems were easily circumvented, as in the following: "There are a number of problems with the QC approach, but they can be overcome" (Bocker and Overgaard, 1982).

Bandwagon discourse. In the upswing, bandwagon discourse reported the successful adoption of quality circles. Early on, reports were of the successful adoption of quality circles by high-prestige U.S. firms, as in the following: "Lockheed is successfully using the concept of quality Control (qc) circles . . ." (*Industry Week*, 1977). There were also repeated mentions of the extensive diffusion of quality circles globally, particularly in Japan: "A major effort begun in 1962 by Japanese industry has led to the involvement of 1 out of every 8 employees in quality control (QC) circles. Over half of the major Japanese firms have such activities, and QC circles are rapidly expanding in Korea, Taiwan, and Brazil toward the Japanese level of acceptance" (*Production*, 1979). Later, the emphasis shifted to widespread successful diffusion in the U.S., as in the following: "Donald L. Dewar of the International Association of quality circles (IAQC) estimates that 2,000 to 3,000 quality circles are now functioning in over 100 US firms" (Nelson, 1980). "Quality Circles are the most rapidly-growing productivity improvement strategy in the country" (Zemke, 1980). Finally, the emphasis began shifting to unsuccessful adoptions and the widespread rejection of quality circles.

Learning Processes in the Fashion Downswing

The results suggest tentatively, in response to question #6, that quality circle discourse evolved to being more negative (fig. 5), less emotional, and more carefully reasoned (fig. 6) in the downswing of the quality circle fashion wave. Our reading of the abstracts also revealed that solution discourse about quality circles tended to become much more differentiated in the downswing. It was possible to distinguish three different rhetorical strategies in quality circle discourse in the downswing, which we call debunking strategies, surfing strategies, and sustaining strategies, although our data did not allow us to quantify their differential usages.

Debunking. Debunking strategies advocate a complete rejection of the quality circle technique, but knowledge entrepreneurs offer no substitute. In contrast to the promotional rhetoric of the upswing that portrays quality circles as universally effective, efficient, and problem free, the debunking

rhetoric of the downswing casts them as universally ineffective, inefficient, and problem-laden. The term fad is frequently used in this discourse to deride the use of quality circles and to influence the fashion downswing. The clearest example of this rhetorical tactic appears in Lawler and Mohrman's (1985) article, which received a lot of attention in 1985:

... quality circles are, as everyone knows, a fad. Some companies have tried quality circles on a trial basis simply because they symbolize modern participative management. In a number of cases we studied, the CEO [chief executive officer] of the company had seen a TV program or read a magazine article praising circles and decided to give them a try. He or she then ordered the personnel department to start a few to see how they work. In these cases, circles were simply something the top told the middle to do to the bottom.

Surfing. We use the term surfing to denote how knowledge entrepreneurs slide smoothly from one strategy to the next. To do so, surfing strategies advocate a complete rejection of the quality circle technique in favor of a substitute management technique. A typical example is the following:

Total productive maintenance (TPM), in replacing total quality control, avoids the problems of quality circles through management control. The premise of TPM is that workers are expected to be responsible for the condition of their equipment. ... By using TPM, one engine manufacturing plant, affiliated with Toyota in Japan, has reduced failures from 5,000 per month to 50. (Macaulay, 1988)

Sustaining. Not every management-knowledge entrepreneur, however, was interested in abandoning quality circles in the downswing phase of the quality circle discourse wave. The downswing discourse was laced with a rich variety of what we call sustaining rhetorical strategies, discourse advocating the continued use of the management fashion, despite problems. This strategy employs at least three analytically distinct rhetorical tactics. First, the discourse employs what we call narrowing tactics—quality circles work or do not work under certain specifiable conditions: "... quality circles or quality teams often failed in the U.S. because of: 1. Lack of effective leadership, 2. ... " (Miskin and Gmelch, 1985). Second, and relatedly, the discourse employs what we call escalation tactics—users of quality circles must increase the involvement of consultants or facilitators for quality circles to work, for example: "Much of the success of a quality circle (QC) depends upon the facilitator. The facilitator must have the ability to: 1. demonstrate an understanding of similar and different group characteristics 2. ... " (Khan, 1985). Third, the discourse employs what we call broadening tactics—quality circles are part of a larger toolkit of techniques:

Faced with the need to get serious about quality, U.S. manufacturers are reevaluating their earlier quality circle failures. Examining these failures has produced 2 breakthroughs in the understanding of quality. Quality circles were part and parcel of something bigger. They were part of what is sometimes referred to as Little Q—the tactical portion of total quality effort. Another breakthrough was the discovery of Middle Q—the corporate infrastructure required to support a total quality process. These discoveries set the stage for the next breakthrough in thinking—Big Q. This is the competitive advantage of nations. (Sheehy, 1993)

DISCUSSION

Lifecycles

The lifecycle of discourse. We looked at the lifecycles of the job enrichment, quality circle, total quality management, and business process reengineering fashions to address question #1. Results revealed an extended period during which each of these management techniques received little attention in management discourse giving way to a transient wave of discourse about these techniques (figs. 1 and 3). There were two deviations from this general pattern across the four fashions: the job enrichment wave of discourse crested for a relatively long period, and the volume of discourse on quality circles decreased slowly relative to its increase, due to sustained academic and semi-academic attention to quality circles (see also, Abrahamson and Fairchild, 2000). From this we derived two propositions that are deserving of further examination:

Proposition 1: Management fashions tend to have a lifecycle characterized by a long latency phase followed by a wave-like, often asymmetrical and ephemeral popularity curve.

Proposition 2: The variability in when different types of management-knowledge entrepreneurs—consultants, journalists and scholars, for example—begin, continue, and stop promoting fashions explains the variability in these fashions' aggregate lifecycles.

The lifecycle of diffusion. At least three aspects of our quality circle case study suggest a third proposition:

Proposition 3: The lifecycle of discourse promoting a fashionable management technique coevolves with the lifecycle of this technique's diffusion across organizations.

First, as we noted above, early Japanese quality circle discourse antedated early Japanese quality circle adoption, which in turn antedated early U.S. quality circle discourse, which then antedated U.S. early adoption, which in turn antedated the widespread diffusion of quality circle discourse and adoptions in the U.S. These results suggest that, at least during a fashion's latency phases, fashion discourse and adoptions coevolve. Second, as figure 1 indicates, the upswing in the amount of discourse about quality circles paralleled the diffusion of decisions to adopt them, whereas the downswing in the amount of discourse coincided with the diffusion of decisions to reject them (see Burns and Wholey, 1993; Abrahamson, 1997, for similar findings). While these results are consistent with a coevolution explanation for the later stages of the quality circle fashion, our aggregate data did not allow us to test for reciprocal causation, or coevolution, between fashion discourse and adoption.

Third, consistent with a coevolution story, the quality circles discourse evolved as the diffusion of their adoption gave way to the diffusion of their rejection in a way that reflected this diffusion wave and could have reinforced it. On the one hand, our reading of quality circle discourse revealed that it reflected the diffusion wave by providing both anecdotal and survey evidence about when and why a few prestigious organizations, as well as many less prestigious organizations, were adopting or rejecting quality circles. On the other hand, documenting this diffusion wave may have reinforced it by giving rise to a bandwagon process, a positive feedback loop

in which increases in the number of adopters create stronger bandwagon pressures, and stronger bandwagon pressures, in turn, cause increases in the number of adopters (Abrahamson and Rosenkopf, 1993). Such bandwagon pressures are generally thought to occur because organizations observe more and more influential organizations in their contact network adopting or rejecting an innovation (Abrahamson and Rosenkopf, 1997, for a review). Our study suggests the existence of what might be called a rhetorical bandwagon pressure to adopt or reject a management technique, which occurs because managers *read* discourse telling them that many organizations are adopting (or rejecting) this technique. The resultant belief that everybody is adopting this technique creates the pressure to jump on the bandwagon.

This study reveals a second way in which the discourse that managers read evolved to support the widespread adoption or rejection of quality circles. Strang and Meyer (1994) argued that discourse influences the speed and extent of diffusion by reinforcing the belief that organizations are similar in ways that would cause them to benefit equally from adopting a management technique. Our study revealed that discourse may have had this effect because, in the upswing stage of the quality circle fashion, it theorized pervasive environmental threats (global, particularly Japanese, competition) affecting most U.S. organizations and resulting performance gaps (inferior productivity and quality) that could be narrowed or closed efficiently by any and all of these organizations if they adopted a particular management technique (quality circles). By reinforcing the belief that any and all U.S. firms needed and could use quality circles, discourse promoting this management technique may have accelerated the speed and scope of their diffusion across a disparate set of organizations. By the same token, during the fashion downswing, discourse about quality circles suggesting that they would help few organizations might have reinforced the rapid, widespread rejection of quality circles.

Triggers

Our case study of the quality circle fashion revealed three conditions that could have triggered it: (1) a force endogenous to the fashion market, the collapse of the job enrichment fashion, as well as a conjunction of two exogenous forces, (2) global competition (particularly Japanese auto-industry competition and the productivity and quality performance gaps they revealed in U.S. firms), and (3) a surge of discourse stressing these performance gaps. The most interesting interpretation of our results, however, is encapsulated in a fourth proposition:

Proposition 4: Three conditions, when they occur in conjunction, trigger a management fashion within a niche: (1) a fashion in that niche must collapse, (2) there must be a widespread performance gap that a latency-phase replacement fashion in that niche can purportedly address, and (3) discourse must have brought this gap to the collective attention of many management-fashion consumers.

A process theory can help explain the basis for this proposition. According to Mohr (1982: 44), "Loosely, a process theory is one that tells a little story about how something comes about, but in order to qualify as a theoretical explana-

tion of recurrent behavior, the manner of storytelling must conform to narrow specifications." The story must specify each of a number of necessary conditions that must occur in conjunction to trigger the occurrence of the phenomenon being explained. The garbage can model of decision making, for example, suggests that decisions result from the chance co-occurrence of a problem, a solution, a choice opportunity, and a decision maker seeking a problem to solve (March and Olsen, 1976). To support a process theory, each individual condition must meet two tests. First, it must be shown to be necessary to trigger the phenomenon. Second, it must be shown to be insufficient, on its own, to trigger this phenomenon. Only then is the argument supported that it is the conjunction of each of these conditions, and not one alone, that triggers the phenomenon. The process theory underlying our fourth proposition suggests that a particular fashion can emerge in an established management-fashion niche only when three conditions co-occur. To support this process theory of fashion, we consider whether each of these three conditions, in the case of the quality circle fashion, meets the tests of necessity and sufficiency of process theories on both logical and empirical grounds.

Collapse or elimination of the previous fashion. First, we expected a pattern of fashion substitution within an established fashion niche, whereby the elimination or collapse of one fashion in that niche coincides with the emergence of the next fashion in that niche. Figure 3 provides support for this conclusion by revealing the substitutions of the job enrichment, quality circle, total quality management, and business process reengineering fashions. Second, we reasoned that without the elimination or collapse of a fashion in a niche, the niche would remain full and could not sustain another fashion. We expected, therefore, a second pattern, such that fashions would remain in their latency phase until the collapse of the previous fashion, at which point they would surge. Figure 3 supports this conclusion. The quality circles, total quality management, and business process reengineering fashions remained in their latency phases until the collapse of the fashion preceding them, surging thereafter. We also reasoned that the collapse of the previous fashion is a condition necessary to explain the occurrence of a particular fashion in an established fashion niche, but is it a sufficient condition to do so? Our answer is that this condition, while sufficient to explain why one of many possible potential fashions is elected, is not sufficient to explain why one particular fashion, rather than another, was selected into a fashion niche. Why, for instance, were quality circles, rather than another fashion, selected in the early 1980s? Quality circles were not the only contenders. Nor can a strong argument be mounted for the technical superiority of quality circles, or else they would have been selected sooner. It follows that other conditions had to be present for the quality circle fashion, rather than another, to be selected when it was.

Widespread performance gap. We found that a widespread performance gap is necessary to explain why one particular fashion, rather than another, is selected into a fashion niche. Abrahamson (1996a) argued that exogenous

forces shape fashion demand. We examined whether such exogenous forces might constitute the conditions necessary to explain why quality circles, rather than another fashion, were selected in the early 1980s (see also Cole, 1985, 1989). Our results indicated that global competition, particularly from Japan, created quality and productivity performance gaps across U.S. organizations that could explain the emergence of a particular management fashion like quality circles that focused on Japan, quality, and productivity. Is this second condition sufficient to cause a fashion? We believe it is not, because it is unclear how a widespread performance gap becomes perceived as a threat or opportunity by many managers and why this issue rises to the top of many managers' agendas, causing them to feel the need for a management fashion addressing this issue (Dutton and Jackson, 1987). We cannot assume that performance gaps automatically come to managers' attention. Moreover, empirically, the global competitive decline of the U.S. began immediately after World War II (Lawrence and Dyer, 1983), yet the quality circle fashion did not emerge until 1981, a full thirty-five years later. Thus, the U.S.'s quality and productivity performance gaps are not sufficient, alone, to explain why quality circles, rather than another fashion, were selected in the early 1980s.

Discourse highlighting a performance gap. If we cannot assume that performance gaps automatically come to managers' attention and rise to the top of their agenda, then we must explain by what process this happens. A substantial body of evidence reveals that mass media discourse draws attention to particular issues and pushes them up the agenda of mass media audiences (Rogers, 1995). Thus, we reasoned that management knowledge entrepreneurs' discourse highlights a few performance gaps (e.g., declining U.S. quality and productivity) among the many widespread gaps facing managers. It pushes them to the top of managers' agendas, thereby creating demand by these managers for fashions (e.g., quality circles) purporting to address these gaps. Our results support this view. They reveal a surge of discourse highlighting Japanese balance of trade, productivity, and quality immediately antedating the upswing of the quality circle wave, suggesting that this discourse surge might have contributed to triggering it.

Is this third condition sufficient to trigger a fashion? It could be argued that even if a performance gap does not exist, discourse suggesting it does might constitute a sufficient condition to trigger a fashion purporting to narrow this gap. So, for example, management-knowledge entrepreneurs could invent a nonexistent threat in order to trigger the diffusion of a fashion purportedly addressing this threat. Such an argument is both hard to sustain and to put completely to rest, but three things are clear. First, this argument suggests the cynical conclusion that thousands of gullible senior executives can be duped by cunning management-knowledge entrepreneurs into believing in nonexistent performance gaps and in fantasy solutions narrowing these imaginary gaps. Second, this argument cannot explain why one particular performance gap, rather than another, triggered a

fashion—why a fashion in the early 1980s to narrow a performance gap was measured in terms of quality rather than some other metric. Third, this argument is inconsistent with our data revealing the existence of U.S. quality and productivity performance gaps relative to Japan that could have motivated demand for a Japanese quality- and productivity-enhancing fashion in 1981 rather than another type of fashion. The above discussion leads to a fifth case-based proposition worthy of further research:

Proposition 5: Each of the three conditions is a necessary though insufficient condition to trigger a fashion, but in conjunction they can trigger a fashion.

Learning Processes

We examined whether the quality circle fashion evidenced a pattern of superstitious learning. Results from both computer assisted text analysis and reading every quality circle abstract lead us to advance a sixth proposition deserving of further analysis:

Proposition 6: Emotionally charged and largely uncritical discourse vaunting the quasi-magical potency of a management technique characterizes the upswing of a fashion wave in its popularity, and a more thoughtful and critical attitude toward this technique characterizes the downswing in this fashion wave.

Three findings supported this proposition in the case of quality circles. First, our CATA analyses were consistent with this proposition. Second, we found a number of rhetorical strategies that arguably either were designed to generate strong emotional reactions or were articulated by management-knowledge entrepreneurs in the grip of these very emotions. Third, this proposition is consistent with the strong emotions and optimism observed among participants in the quality circle movement (see particularly Cole, 1989: 199–200).

CONCLUSION

This study suggests both the outline of a broader ecological theory of the evolution of institutions and a research agenda to explore it. In this ecological theory, the term variation denotes the invention or reinvention of discourse that labels a particular management technique and theorizes and legitimizes its utility. Quality circle discourse, for example, was invented in Japan by Ishikawa (1968) and first translated, or reinvented, in the U.S. by Juran (1967). Selection denotes the widespread diffusion of this discourse throughout the fashion market. In this study, for example, we noted the wildfire diffusion of quality circle discourse beginning in 1980. Retention denotes institutionalization, in the sense of a relative permanence of a distinct social sort in the use of fashionable discourse and the practices it legitimates. An example might be the institutionalization of quality circle discourse in Japan (Cole, 1985, 1989). The absence of retention occasions rejection by both supply and demand sides of the management-knowledge market of noninstitutionalized fashionable discourse and, possibly, the practices it legitimates. We found such rejection of U.S. quality circles beginning in the mid-1980s.⁵ This evolutionary theory of institutions, as

Such rejection should not be confused with what Oliver (1992) called deinstitutionalization, the rejection of institutionalized theorizing discourse and the practices it legitimates. If an innovation is never institutionalized, as was the case with quality circles in the U.S. and with other fashions, then it cannot very well be said to have been deinstitutionalized.

we have elaborated it, raises a number of questions bearing on the determinants of variation, selection, and retention.

Toward an Ecological Theory of Fashions and Institutions

Variation. First, what causes variation? We do not know, for example, whether variation occurs in fashion markets' demand or supply sides. Galbraith (1980: 162), for instance, stated, "I know of no new form of organization that was invented by organization theorists while advancing the theory. I have seen no new form emerge from the test tubes of organization theory. Instead, the researchers record what the inventive practitioner creates and give it labels like grids, system 4, or matrix organization." Others have argued that variation generally occurs on the supply side of the management fashion market (e.g., Abrahamson, 1996a), as our study reveals it did in the case of quality circles in both Japan and the U.S.

Selection. Our evolutionary theory of institutions also suggests the question, how does selection function? The management fashion literature has distinguished a variety of knowledge entrepreneurs, the popular business press, book publishers, consultants, management consulting firms, gurus, scholars, business schools, technical organizations, and the technicians staffing them, such as quality control technicians or human resource management specialists, for instance. Yet virtually nothing is known about which of these knowledge entrepreneurs select management fashions or how they interact to do so (Abrahamson and Fairchild, 2000). Our study does indicate that the popular press led both the academic and semi-academic press in publicizing quality circles, suggesting that it may be a leader in the selection process. Much more work is necessary, however, to settle such questions. More generally, it might be useful to ask, what are the selection criteria in the evolution of fashions and institutions? Are these criteria stable, as they would be if relatively invariant fashion niches created stable demand for the same types of fashions to replace older ones? Meyer (1996), for instance, argued that organizing ideas linked to rationalistic, bureaucratic, or progressive values are more likely to be selected, whereas those linked to familial, ethnic, national, gender, communal, or religious values are less likely to be selected. Or are certain aspects of selection criteria unstable? That is, do selection criteria themselves evolve? Such evolution might be called second-order evolution and defined as the evolution of selection criteria, to distinguish it from what might be called first-order evolution—the selection of management discourse and the techniques it legitimates. There is reason to believe that such second-order evolution exists. Research indicates that business discourse swings, with pendulum-like regularity, between a rational-rhetorical pole and a normative-rhetorical pole (Barley and Kunda, 1992; Abrahamson, 1997). This suggests the existence of a pendulum-like, second-order evolution between selection criteria favoring rational fashionable discourse and selection criteria favoring normative fashionable discourse.

Retention. Our ecological theory also problematizes the retention stage of first-order evolution. Suppose, as Zucker (1977) has, that variation-selection-rejection sequences are

the norm, whereas variation-selection-retention sequences are the exception (see also Tolbert and Zucker, 1996). Then, what explains the infrequent retention by way of institutionalization of certain fashionable management discourses and the techniques they legitimate? Why, for example, did a technique that emerged around the turn of the century, the fashion of giving employees vacations to secure their goodwill (Brandes, 1976) become institutionalized rather than becoming a passing fashion? To answer such a question, researchers will need to explore forces capable of vitiating the counterinstitutionalizing forces of management fashion—forces that stem from both norms of progress and the financial interests of knowledge entrepreneurs in debunking incipient institutions in order to continue profiting from the progressive appetite of fashion consumers for ever-new management fashions.

Our simultaneous focus on variation, selection, retention, and rejection, rather than institutional theory's narrower focus primarily on retention, recommends itself for a number of reasons. It allows us to distinguish fashions that are not institutionalized and retained from more stable retained fashions or institutions (Westphal, Gulati, and Shortell, 1997). It allows us to recognize the role of professors, and knowledge entrepreneurs more generally, in the formation, retention, and dissolution of fashions and institutions (Abrahamson and Fairchild, 2000). It allows us, more generally, to better understand how fashions and institutions evolve. This is not a trivial endeavor. Our results suggest that management fashions intended to be both rational and progressive may in fact be irrational and, thus, retrogressive from the point of view of the thousands of organizations and millions of managers and employees who use these fashionable techniques both nationally and globally. Such widespread perpetual change, if it is technically inefficient, has the potential to generate pervasive waste, burnout, and cynicism about the potential for all forms of advancement in management. Thus, the continued study of administrative fads and fashions is squarely aligned with the *Administrative Science Quarterly's* dedication to advancing the understanding of administration through empirical investigation and theoretical analysis.

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