



CROSSROADS

In July 1993, at the EGOS Colloquium held in Paris, Arie Lewin, editor-in-chief of *Organization Science*, heard Alfred Kieser give a speech on the importance of historical analyses of organizations and the relative absence of this perspective in contemporary organizational science. Stimulated by the energetic debate that was sparked by the presentation, he encouraged Professor Kieser to submit a paper based on this talk to *Organization Science*. He subsequently obliged and worked with me and a number of reviewers to shape the manuscript for Crossroads. In his presentation, he raises a number of intriguing arguments for the reintegration of historical analyses into organization theory and provides examples of possible contributions which such analyses have made to the field.

I invited Paul Goldman, noted for his work in the late 1970s on the labour process and the historical perspective inherent in his analyses, to read and respond to Kieser's paper. He agreed with enthusiasm to the invitation. His response is eloquent and lucid. He points out ways in which the historical perspective has informed the work of organizational scholars and adds some cautions against an uncritical embracing of history as an explanation of organizational structure, processes, and outcomes. Taken together, these two treatments of the role historical factors and analyses can play in the study of organizations are a valuable addition to the organizational literature.

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Why Organization Theory Needs Historical Analyses—And How This Should Be Performed

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Possible Contributions of Historical Studies to Organization Theory

One of the forefathers of sociology and organization theory, Max Weber, was as much a historian as a sociologist. He was convinced that in order to understand contemporary institutions one has to know how they had developed in history. For him, history and sociology were inseparable disciplines. When he took over his last chair in Munich, he dryly commented: "I now happen to be a sociologist according to my appointment papers" (Burke 1992, p. 11).

Many sociologists of organization of the following two or three generations still took history very seriously. However, with the elapse of time interest in the history of organizations vanished, and nowadays, excursions of organization researchers into history have become extremely rare.

An explanation of this rejection of the past in modern organization theory would first of all have to take the process of the professionalization of sociology into consideration. In order to create an identity that was independent of other disciplines, especially history, sociology developed a preference for specific methods such as experiments or interviews (Burke 1992, p. 13) that, in conjunction with statistical analyses, offered the prospect of a precise methodology analogous to that of science.

Organization theory followed this trend away from history with one important exception, namely labor process theory. This exception has to do with Karl Marx, another forefather of sociology. According to Marx—and labor process theory closely follows him there—a given society always has to be interpreted as an epoch in a development *process* that owes its specific dynamics to class conflicts (Marx 1964). Defining this process on the level of organizations as being determined by changing combinations of tools, machinery, skills, work practices and organization, proponents of labor process theory raise key questions: who, and in whose interests, initiated changes, and who, in the end, gained control of the pace and direction of work? Organizational changes are analysed as struggles over "contested terrain," as the title of one study indicates (Edwards (1979); other, now classic, examples in this tradition are Clawson (1980), Goldman and Van Houten (1979), Braverman (1974), Marglin (1974),

Stone (1974), Friedman (1977); for an overview see Goldman (1983)). However, this approach, regardless of the many insightful interpretations of the history of organization it produced, did very little to restore the value of history in sociology or organization theory in general. Published in journals like *Critical Society*, *Review of Radical Political Economics*, or *Radical America*, it was broadly isolated from mainstream organization theory whose proponents, if they took notice of these writings at all, felt challenged to disprove the assertions of this theory—as we will see shortly in an example—rather than being animated to rediscover the potential of historical analyses in general.

At least four good reasons can be identified why historical analyses should generally be revitalized within organization research:

(1) Structures of and behavior in present organizations reflect culture-specific historical developments. Differences between organizations in different cultures can, therefore, only be explained completely if the historical dimension is included in the comparison.

A convincing example of a study in which this was done is one by Lutz (1976). Comparing matched pairs of work organizations in France and Germany he found remarkable differences. While in one German machine tool company one supervisor in production and maintenance, on the average, had to control 22 workers, his French colleague supervised only 11 workers; while the German company had 3 hierarchical levels to coordinate 452 workers, the French company needed 8 levels to control 406 workers. In the German paper company 37 persons worked in indirect functions, in the French company this number was 104. The differences in the other pairs were in the same direction and of similar magnitude. Another finding was that in French organizations more emphasis was placed on bureaucratic coordination of production, while coordination through face-to-face communication is more intensively applied in German organizations.

These differences are, to a large extent, due to differences in qualification systems. The French system places emphasis on general education, while in the German system professional qualification through apprenticeships plays a prominent role. Consequently, in a German plant we find a relatively high percentage of workers and supervisors who have completed professional training as *Facharbeiter* and are, therefore, capable of solving a lot of technical problems on their own initiative, while in France more detailed plans, more staff personnel in order to produce these plans, and also a taller hierarchy in order to control production processes are necessary.

But why are qualification systems in France and Germany different? The causes have to be tracked down far back in history: When the Industrial Revolution took off on the continent, France had a more developed educational system available than Germany. This meant that the early German factory owners could not expect to find qualified workers, foremen, and staff personnel in sufficient numbers on the labor market; they had to qualify their personnel themselves. They solved this task by adopting the apprenticeship system of the guilds that, at this time, were still in existence on a much larger scale than in France. Taking this course, German factory owners felt very backward compared to their French colleagues. They would have preferred state-run schools to do the training of supervisors and key workers, as was the case in France. Retrospectively, however, the apprenticeship system of qualification, that was not the outcome of a great strategy but forced by necessity, was a decisive factor in establishing the late starter Germany as one of the leading economic powers around the turn of the century.

Hofstede (1991, 1980) holds that cultural differences between organizational structures reflect differences in value systems. These value systems can also be identified in the theories that are developed and favored in these different cultures (Hofstede 1994). For instance, German organization theory stresses the importance of bureaucratic rules while French organization theory places emphasis on hierarchy. Thus, values shape organizational structures as well as organization theories that legitimize these structures. But how is it that values are different across cultures? A satisfactory answer can only be found in history.

The need to explain differences in organizations by tracing them back to historical developments is even more obvious when organizations of Western cultures are compared with those of more distant ones. For example, contrary to Western norms, it is not considered good management practice in Japan to define jobs and responsibilities *for individuals*. It is not the individual but the group which is held responsible for task fulfillment. Written job descriptions are unknown in Japanese companies. Some researchers even go so far to claim that the relationship of Japanese organization members to their organizations is of a different *type* than that in the West (Deutschmann 1989). In Western organizations the member—organization relationship is characterized by “partial inclusion” (Pfeffer and Salancik 1978, p. 31), meaning that “it is recognized that while the organization has the right to coordinate and control some behaviors related to organizational tasks, the individual retains control over other behav-

iors.” In Japanese organizations a far-reaching identification of members with the organization is required and secured through specific recruiting procedures and in-house training (Ishida 1986, Clark 1979). The explanation for these differences has to be sought in history. “The Japanese company, in just the same way as the American or British, is the product of a particular history” (Clark 1979, p. 4). Consequently, a reconstruction of the specific paths that the development of organizations took in different cultures, increases the understanding of these differences. In the Japanese case, for instance, it is important to identify the “merchant house” of the Tokugawa period with its justification provided by Samurai ethics and Confucianism as a forerunner of the Keiretsu. The far stronger group orientation of Japanese people has to do with an absence of ideas and movements like the Renaissance, the Reformation or liberalism that in Western cultures were crucial for the emergence of individualism. Industrialization in Japan, in contrast, was predominantly legitimized through collectivistic Samurai values (Yoshino 1968). Sociology, and organization theory in particular, has to acknowledge that “present forms have their particular nature *by virtue* of their past” (Manicas 1987, p. 274).

(2) The identification of actual organizational problems and of their appropriate remedies is often not free of ideology. Be confronting current “fashionable” trends in organization theory and practice with similar developments in the past, we can identify and possibly overcome prejudices that characterize the presentation of these trends.

The concept of organizational culture can serve as an example to illustrate this potential contribution of historical analyses. Organizational culture is commonly characterized as a modern and efficient instrument for coordination. A look into history shows that mechanisms that are discussed in present concepts of organizational culture have also been applied in former times, often in circumstances and for purposes that we would not like to reintroduce. For instance, with regard to the use of rituals, myths, and symbols the medieval guilds far outperformed companies that are known for their strong organizational cultures like Hewlett Packard or IBM (Kieser 1989). The guild’s core symbol, the chest in which documents such as seals, privileges, the constitution of the guild, and register of members were kept, was a cultic shrine like the altar of a church, that is closely resembled. Dances and plays were performed during the numerous guild festivities, allegorically portraying the beginnings of the guild as well as highlighting important phases of its development. Extensive

initiation rituals took place for the admission of apprentices and promotions from apprentice to journeyman and journeyman to master. This intensive use of rituals, symbols, and myths ensured that the many and detailed strict rules of the guilds that concerned its economic, religious, social, military, jurisdictional, and political functions escaped criticism and that alternative modes of behavior did not occur to the members. Myths and rituals are beyond question. They are handed down from generation to generation and contain profound truths that remain beyond doubt. Consequently, the replacement of "organizational culture" by formalized procedures, and of a value-based attachment of members by a utilitarian one can be interpreted as important steps in the process of rationalization.

Another critical aspect of organizational culture becomes evident when it is confronted with the human relations movement (Ebers 1988). Similar to the organization culture approach, the human relations movement legitimized itself by pointing to the limited efficacy of technocratic and bureaucratic control mechanisms; it also nourished expectations that behavior that is guided by common values and norms would be more effective than one that is enforced on the basis of formal procedures. Both movements promised management a more efficient and, at the same time, a more flexible and less conflict-prone control of organizational members than traditional management approaches could provide.

Today we know that the human relations movement was highly ideological; its concepts remained vague, and, therefore, it did not change much of the reality of organizations, but predominantly the way in which management talked about this reality. As one of its proponents put it:

We generated a lot of new words but these words did not seem to produce anything very concrete, certainly not any visible, tangible products like machines. For all our huffing and puffing there was nothing to show. We did not even produce any sentences or propositions in a scientific sense to verify (Roethlisberger 1968, pp. 308–309).

With regard to the use of symbols, rituals and myths in order to control the thinking of organizational members, the Nazis were also virtuosos. They not only celebrated *Reichsparteitage*, they also designed a concept for a *Betriebsgemeinschaft* that included many elements of organizational culture concepts, like the stylization of *Führers* or heroes and ceremonies (Krell 1988). A management book on socializing young employees into the company that was published in 1944

dedicated a whole chapter to "The Ceremony" in which it was pointed out that

the ceremony is a means to directly mold the persons' minds... The monotony of a workday, the functional, the rational is not the whole, not the higher value for which one can totally sacrifice oneself. A ceremony makes symbolically comprehensible what is beyond all that... The ceremony makes people see the great unity (Schlieper 1944, p. 218).

Of course, all these examples are different in several respects from present concepts of organizational culture. However, they offer critical access to these: The study of medieval guilds informs us that organizational culture can jeopardize the mobility of organizational members as well as the adaptability of organizations, and that the pushing back of symbols, myths, and ceremonies has to do with the process of rationalization or disenchantment. The parallels to the *Betriebsgemeinschaft* of the Third Reich and to the human relations movement tell us that organizational culture is, in essence, management by ideology, and that we should be alert to the kind of value system or ideology on which the organizational culture is built. The case of the human relations movement reminds us that popular but vague approaches sooner or later, in order to avoid their own dissolution, have to produce more concrete concepts for research and practice.

(3) Historical analyses teach us to interpret existing organizational structures not as determined by laws but as the result of decisions in past choice opportunities, some of which were made intentionally and others more implicitly. Choice opportunities that had not been used to the advantage of the actors involved possibly present themselves again or can be restored in some way or other. Historical analyses can prepare us to better identify and to make better use of choice opportunities. The book *The Second Industrial Divide* by Piore and Sabel (1984) is a fine example of a study that demonstrates how choice opportunities were overlooked in the past and that, by interpreting the historical development as deterministic, we are in danger of overlooking alternatives for organizational design available at present. According to Piore and Sabel, the introduction of centralized mass production was generally hailed as a logical step toward progress. However, as we will see in more detail later, historical analyses reveal that putting-out systems survived as an efficient alternative to mass production in some national industries and are enjoying a renaissance in some parts of the world. Historical analyses thus help to break seeming invariances, to take up one of Galtung's (1977, p. 88) phrases. Of course, this point is not independent

of the latter insofar as ideologies are often mobilized to make certain choices appear inescapable.

(4) By confronting theories of organizational change with historical developments, these theories can be subjected to a more radical test than they have to pass when merely being confronted with data on short-run changes. For instance, organization ecology explains the evolution of organizational populations on the basis of three mechanisms (Hannan and Freeman 1989): Variation, i.e., the generation of new organizational practices that occurs predominantly when new organizations are founded and when new technologies are developed; selection, i.e., the filtering out of unfit members of an organizational population which occurs, e.g., through the bankruptcy of companies; and retention, i.e., the preservation of organizational knowledge, e.g., in documents and files. Organization ecology rests on the assumption that these evolutionary mechanisms do not change over time. When confronted with long-term developments, it becomes obvious that this assumption does not hold. Thus, the guild masters of the middle ages were prohibited from innovating. Later, in early modern times, we find so-called project makers who were paid by the rulers to experiment with new products and new processes. However, their approaches were still "pre-rational," as is indicated by their attempts to produce gold out of lead. Nowadays, researchers apply proven theories in the R & D departments of companies to systematically produce new product and process variations. They apply various evaluation procedures and tests to emulate external selection processes as realistically as possible internally before they implement innovations on a broader scale. Organizations have learned to handle a growing number of innovations and to adapt these innovations to environmental selection criteria before exposing them to the environment. Evolution mechanisms are themselves subjected to evolution (Kieser 1989). Evolution of evolution mechanisms has not come to a standstill; it continues in modern organizations, and should, therefore, be considered in evolutionary approaches to organizations.

On the Use of Organization Theory in Historical Analyses

Cooperation between sociologists and historians, if considered at all, is not free of tensions. Sociologists, and among them sociologists of organization, favor grand theories and do not want to bother too much about historical details that disconfirm these theories, while historians fundamentally distrust grand theories.

Historians stress the uniqueness of organizations, while organization theorists stress the general dimensions of organizations. These differences in approach and methods have had the consequence that each group tends to see the other one in terms of a rather negative stereotype. Many historians perceive sociologists as people who state the obvious in an abstract jargon, lack any sense of differences in culture or time, squeeze phenomena into rigid categories and, to top it all, declare these activities as "scientific." Sociologists, for their part, see historians as myopic fact-collectors without a method, the vagueness of their data matched only by their incapacity to analyse them (Burke 1992, p. 3). As MacRae (1957, p. 302), a Scottish historian, has put it: "Sociology is history with the hard work left out. History is sociology with the brains left out." Despite the existence of a few bilinguals, sociologists and historians continue to speak different languages. Therefore, their dialogue, as the French historian Fernand Braudel has coined it, is usually a "dialogue of the deaf" (quoted after Burke 1992, p. 3).

In the following we will discuss how these tensions between historians and organization theorists can be overcome. At first, a certain strategy for applying organization theory to historical analyses will be exemplified by reporting how the development of early putting-out systems in Germany has been explained by labor process theory and new institutional economists. As we will see, both approaches leave many important questions unanswered and many phenomena unexplained. This debate will lead to a discussion of alternative strategies for applying organization theory to historical studies of organizations.

Early Putting-out Systems in Germany

The first putting-out systems in Germany came into being as a consequence of the division of work that had evolved between guilds during the Middle Ages (Jahn 1941). For instance, in textile production, spinning, weaving, finishing, and dyeing had been established as separate crafts. This division of work caused severe coordination problems between guilds, and in such a situation a central coordinator is likely to emerge. In most cases, this role was taken over by craftsmen who stood at the end or at the beginning of the production process, connecting it with markets. This central coordinator then soon became the putter-outer for other craftsmen. This kind of putting-out system—a network connecting guilds—can be found from the thirteenth century on.

In the sixteenth century another kind of putting-out system evolved: long-distance merchants contracted

with guilds (Aubin and Kunze 1940). These contracts normally specified that the guild had to deliver certain products (textiles in most cases) in quantities that almost completely exhausted its production capacity. The merchants paid an advance in money in order to enable the guild masters to buy raw material and to sustain their living between delivery dates. Their contracts with guilds allowed the merchants to secure large quantities of goods in specified qualities without being forced to maintain a large administrative staff. The guilds coordinated the production and guaranteed the contracted delivery dates as well as the quality of the products. This form of putting-out proved advantageous for both sides. The guilds grew and gained a standard of living that was higher than that of comparable guilds that remained outside this system. The merchants were able to enlarge their international sales network.

The Thirty Years' War weakened the influence of town guilds that had succeeded in forestalling commercial production in rural craft shops or in the homes of peasants. Now the merchants increasingly recruited producers in the countryside where labor was cheaper and duties were lower. It was also possible to organize production in a more flexible way outside the guilds that had severe problems in changing their production in order to meet changing tastes. Putting-out systems that relied on rural outworkers could become very complex and very large. For instance, in the year 1707 a handful of putter-outers in Wuppertal gave work to more than 30,000 producers (Kisch 1981).

A putting-out system was not an organization. It rather was a complex network of contracts of manufacture. The producers were formally independent, though often highly dependent economically. Putting-out networks comprised employees of the putter-outer ("foggers"), supervisors and carriers (sub-putter-outers), sub-sub-putter-outers, and producers who often employed workers in addition to their wives and children. The producers worked in their own shops, in shops jointly owned by a number of them, in shops of a putter-outer or a sub-putter-outer or of a third person to whom the producer had to pay rent. Working in a shop of a putter-outer did not mean necessarily that the producer became a salaried worker instead of a self-employed outworker. In many cases, the producer could still determine working time and pace of work; the contract referred to the products, not to the workforce of the producer, and the money paid was not a wage but still a price for products delivered.

In spite of this complexity in relationships coordination was a relatively simple task. Subcontracting in

conjunction with economic pressure made it easier: As soon as the number of producers tended to become unmanageable, the putter-outer simply engaged sub-putter-outers who dealt on their own account with a number of producers. Instead of dealing with a large number of producers, the putter-outer then had only to deal with a much lower number of sub-putter-outers. Normally, this strategy did not increase costs since the sub-putter-outer could be obligated to deliver for the prices that the putter-outer had been paying to the producers. The sub-putter-outers made their profit by increasing pressure on the producers. Of course, this mechanism only worked as long as there was excessive supply of labor.

Putting-out systems contributed considerably to the development of the German economy: around the year 1800, 50 percent of the work force was employed outside craft production, and 85 percent of them were producers in putting-out systems (Henning 1974).

Most putter-outers maintained some central production. In the nineteenth century, they increasingly shifted work from outworkers to these centralized shops, for the following reasons (Kisch 1981): (1) Consumers demanded better quality that could only be achieved under more intensive control of central production. (2) Adaptation of products to changing demands could be achieved faster in central production; special production methods could better be kept secret in centralized production. (3) Technical progress, especially machines driven by water or steam power, required centralization of production. Factories that were founded in the course of the Industrial Revolution were highly centralized organizations right from the beginning. They replaced the bulk of putting-out systems during the second part of the nineteenth century.

Putting-out Interpreted by Labor Process Theory

Marglin (1974) argues that neither of the two decisive steps in depriving the worker of control of product and process, namely (1) the development of the minute division of labor that characterized the putting-out system and (2) the development of the centralized organization that characterizes the factory system, took place primarily for reasons of technical superiority. He holds that rather than providing more output for the same inputs, these innovations in work organization were introduced so that the capitalist could secure himself a larger share of the pie at the expense of the worker. Thus, according to Marglin, the division of work in the putting-out system came into existence, not as the result of a search for a technologically superior organization of work, but for an organization that

guaranteed to the entrepreneur and essential role in the production process, as integrator of the separate efforts of his workers into a marketable product. And, likewise, the origin and success of the factory did not lie in technological superiority, but in the substitution of the capitalists' for the worker's control of the work process and the quantity of output.

Marglin's proof of these hypotheses relies more on reasoning than on collecting historical evidence. For instance, referring to needle manufacturing in the cottage industry he maintains that

it appears to have been technologically possible to obtain the economics of reducing set-up time *without* specialization. A workman, with his wife and children, could have proceeded from task to task, first drawing out enough wire for hundreds or thousands of pins, then straightening it, then cutting it, and so on with each successive operation, thus realizing the advantages of dividing the overall production process into separate tasks (p. 70).

This argumentation is questionable insofar as costs of equipment and training in different skills are neglected.

The putter-outer, who, according to Marglin, was technologically superfluous, brought himself into play on the principle "divide and conquer":

The putter-outer's peculiar contribution to production was handsomely rewarded not because of any genuine scarcity of the ability to integrate separate functions; rather the scarcity was artificially created to preserve the capitalist's role (p. 70).

This argumentation is not in line with historical facts: in the first putting-out systems, the guild masters of the first or last production phase necessarily had to take over the role of mediators between production and markets. They did not have to divide since production in guilds was already highly specialized. Putting-out was a consequence of a division of work that had already developed rather than its cause. The merchants who contracted with guilds also did not divide anything; instead they produced access to the world markets that the guild members were unable to organize themselves. That some of these mediators took advantage of their position is another story.

In a similar vein, Marglin argues that the replacement of the putting-out system by the factory can primarily be explained by the capitalist's striving for more control over the worker. According to Marglin, the agglomeration of workers into factories was a natural outgrowth of the putting-out system, a result of its internal contradictions. The success of the factory had

little or nothing to do with the technological superiority of large-scale machinery:

The key to the success of the factory, as well as its inspiration, was the substitution of capitalists' for workers' control of the production process; discipline and supervision could indeed reduce costs *without* being technologically superior (p. 84).

Without doubt, in some instances, cottage workers did develop tendencies to slow down the working pace as soon as they had achieved a certain standard of living. However, there is ample evidence that in the majority of cases centralization of production was triggered by the need to fill the capacity of large-scale machinery.

The new...machines...were incompatible with cottage or house shops because they were power-driven, took a lot of room while growing bigger from one generation to the next, and cost more money than a modest clothier could afford. Their capacity, moreover, exceeded the needs of the usual Yorkshire unit (Landes 1986, p. 606).

The path of technological development toward centralized production was, to a large extent, dictated by the cost of power engines. As far as the exploitation of workers is concerned, the putting-out system seems to have been much more effective than the factory. The capitalists who had a preference for this model had to compromise since they could not find a technology for decentralized production that was equally efficient (Landes 1986).

Putting-out Interpreted by New Institutional Economists

According to Williamson, capitalists did not prefer hierarchies over putting-out systems because they were superior in exploiting workers but because they were more efficient. The proof for this hypothesis is provided in Table 1 (Williamson 1985, p. 226) in which these two organizational modes are rated against a number of efficiency criteria. For the following criteria hierarchies are judged a "good mode" (denoted by 1) and putting-out systems a "poor mode" (denoted by 0): transportation expense, buffer inventories, interface leakage (embezzlement), contracting (with maintenance specialists), local responsiveness (process improvements at individual stations) and system responsiveness. Only for work intensity and local innovation is the rating in favor of the putting-out system.

Jones (1982), a historian, sharply attacked this concept by raising the following points: (1) Williamson neglects that putting-out and factories operated in different sets of labor markets. (2) Ranking on the basis

of unweighted efficiency indicators is too crude a measure to do justice to the different degrees in which efficiencies or inefficiencies occurred in historical reality. (3) The scores are not assigned correctly: (a) transportation costs were small and, in most cases, had to be borne by the producers; (b) heavier stocks of work in process which had to be maintained by putter-outers were compensated for by smaller stock of finished goods and by higher flexibility in adjusting to fluctuations in demand; (c) contracting attributes were relatively unimportant because there were few trades in which outworkers employed techniques or machinery that required specialists. Jones also questions whether system responsiveness of the factory was really superior to that of putting-out (see also Brocklehurst 1989). He concludes that the "triumph of the factory system was *not* the result of any organizational superiority; nor was it the product of advantages gained through specialization and the division of labor. It was due mainly to the fact that factories incorporated machines that economized on inputs, especially labour" (Jones 1982, p. 136).

In a certain way, Williamson's model in which capitalists are treated as agents and workers as opportunists can be interpreted as a reversal of Marglin's model in which the workers are seen as the true agents and the capitalists as opportunists (William 1983, Brocklehurst 1989). In Marglin's approach, a small number of intermediaries purchase goods from a big number of producers who have very limited access to markets. Information is heavily impacted in favour of the intermediaries, who opportunistically exploit this advantage. For Williamson, the information impactedness is in favor of the producers who own the production equipment and the production know-how. They behave opportunistically by embezzling material and by avoiding investments for process, product or organizational innovations.

Neither Marglin nor Williamson take much care to present historical evidence on the motives of the actors involved.

The Decline of Putting-out Interpreted by Piore and Sabel
Piore and Sabel (1984) introduce an additional factor in order to explain why putting-out systems were replaced by factories: the power of a vision—namely that of centralized mass production—that convinced powerful actors. Piore and Sabel (1984, p. 44) maintain that centralized, mechanized mass production became a

paradigm which created

the preconditions for a new orthodoxy. This new orthodoxy is exemplified in model machines and factories whose producers and owners never tire of advertising them, and its structuring principles are propagated in technical schools by textbook and example. At best half aware that their imagination has been circumscribed by convention, technologists pushed down the new path; they ignored the hints of alternative possibilities that are constantly unearthed by their experience with markets and machines—so long as the economy they are building meets the (frequently lax) test of international competition.

In this way

mass production won out in the realm of ideas as it won out in the realm of practice. Industrialization became synonymous with mass production, and the mass-production paradigm became self-evident truth (Piore and Sabel 1984, p. 47–48).

The power of this paradigm, according to Piore and Sabel, stamped out putting-out systems in many industries in which they could have remained a viable alternative.

The Re-emergence of Putting-out

Nevertheless, putting-out has survived in a few areas and is obviously even passing through a renaissance. High quality knitware production in Modena represents an outstanding example (Lazerson 1990, 1993; Best 1990, Ch. 7, sketches the history of this example). To a large extent, this production is organized by manufacturers who subcontract to artisans and home-workers, i.e., small, legally independent firms whose main work force is often the family, production tasks like weaving, pre-pressing, embroidery, assembly, button-making, or finishing while maintaining direct control of the design of the first prototypes and the final marketing and distribution of the garments. Empirical analyses show that this kind of production is more profitable for these products than a centralized one (Bursi 1989), a finding that is at variance with Williamson's analysis. (Recently, Transaction Cost Economics has been successfully applied to this case (Mariotti and Cainarca 1986), providing that this approach is highly adaptable, or, as critics would say, that it provides a flexible language game for ex-post explanations.)

The factors that can be made accountable for this phenomenon are manifold (Lazerson 1993): (1) Because of unpredictable shifts in consumer tastes, knitware production is characterized by short production

Table 1 Simple Efficiency Properties of the Putting-out and Factory Systems

Mode	Product Flow Attributes			Assignment Attributes			Incentive Attributes					Score
	Transportation Expenses	Buffer Inventories	Interface Leakages	Station	Leadership	Contracting	Work Intensity	Equipment Utilization	Local Shock Responsiveness	Local Innovation	System Responsiveness	
Putting-out System	0	0	0	1	1	0	1	1	0	1	0	5
Factory System	1	1	1	1	1	1	0	1	1	0	1	9

runs that preclude large economies of scale. (2) Possibilities for automation are limited for many phases of this production so that small firms can use the same technologies as large ones. (3) Since artisans and homeworkers, to a large extent, rely on employment of family members, they are less affected by high labor payroll taxes. (4) This workforce is also more willing than hired labor to work overtime, for less pay. (5) Though wages for artisanal and industrial employees are about equal, legislation provides the artisan employer with a number of privileges: he or she has to pay less for overtime, weekend and night work; reimbursement for workers absent for illness is only from the fourth day on while industrial workers get their wages from the first day on; and also dismissal is easier for workers employed in artisan firms. (6) Close supervision of work through the owners who work alongside their employees leads to higher productivity than in large firms. (7) The state, regional and municipal authorities offer to artisans, among other advantages, low interest loans for investment and grants for technologically advanced machinery, cafeterias, industrial parks and quasi-public consortia to aid marketing of the products. (8) Local authorities, trade unions, and voluntary associations of artisans cooperate in order to enforce tax, labor and environmental laws and to counter the destructive forms of competition that are symbolized in sweat shops. (9) Voluntary associations of artisans also develop vocational curricula and programs to link producers with subcontractors and wholesalers. (10) The risks of asset specificity that, according to Williamson (1985, p. 211), are likely to develop in putting-out production, are offset by long-term contractual relationships between artisans and manufacturers. Because of these stable relationships and the enormous geographical concentration information on cost structures prices is readily available. All parties develop an interest in establishing and maintaining codes of fair conduct. Multiple customers offer another protection against the risks of asset specificity. Manufacturers often seek to divide their orders among several artisans and to mediate new customers to them in order to protect their supplier network from strong fluctuations in orders. (11) Costs of buffer inventories are lower than in centralized production since artisanal production is speedier, reducing the time for which work is in process, and since artisans temporarily store the unfinished products. (12) Transportation costs are not more than 0.6 to 3 percent of total production costs. (13) The long-term and close collaboration between manufacturers and artisans proves conducive for incremental but steady innovations in process, product,

and organization (Brusco 1982). Thus, "none of the issues posited by Williamson and other new institutional economists has emerged as significant within the Modena knitware district" (Lazerson 1993, p. 219).

Applying Theory to History

The studies by Marglin and Williamson on the development of putting-out systems represent a strategy that is quite common in historical sociology (Skocpol 1984): General models, i.e., models that are conceptualized independently of the phenomena which are to be explained, are applied as explanatory frames to historical data. Though this strategy is in line with what has been established as good social research practice, when it is pursued in explanation of historical events, a high degree of arbitrariness seems unavoidable. It is probably always possible to select historical facts that fit any general model, but one can never be sure that the researcher is not leaving out important facts that contradict it. It is also very unlikely that any two researchers would select the same historical data and interpret these data in the same way in order to prove the model. Therefore, charges of tailoring historical facts to fit a preconceived theory are near at hand (Goldthorpe 1991, Bryant et al. 1994). This strategy is also especially susceptible to ideologies.

A contrasting strategy is one in which theoretical concepts are used as "ideal types" to establish the particular features of historical cases. The investigator is not "proving" his model by historical "facts." He or she is aware that each model can only suggest certain motives or forces as influential in certain historical processes. He or she tries to find out, in what respects the historical case deviates from the "ideal type" (Kocka 1972). Instead of or in addition to comparing historical cases with ideal types, comparisons between structurally similar historical cases can be made. According to Bendix (1977, p. 16–17) comparisons

increase the visibility of one structure by contrasting it with another. Thus European feudalism can be more sharply defined by comparison, say, with Japanese feudalism, (and) the significance of the Church in Western civilization can be seen more clearly by contrast with civilizations in which a comparable clerical orientation did not develop.

When, in the first of this paper, we confronted the concept of organizational culture with similar earlier approaches, we also followed this strategy.

Applying this strategy to our example of putting-out systems, labor process theory and new institutional

economics could be used to formulate themes and questions that guide the analysis of preindustrialization putting-out systems. And comparisons of these putting-out systems with the modern ones in the Modena textile industry could then be used to find out by which mechanisms the latter overcome problems which had not been solved in the former. In this strategy, comparisons are used to highlight the features particular to each historical context. The aim is to clarify particularities through contrasts. Explanations of this sort rely on the reader to understand more or less intuitively the specific forms of logic that produce the differences in the contrasted cases. Their advantage is that they can convey the impression of richness to a much higher extent than approaches that aim to apply models. Their disadvantage is, according to Skocpol (1984, p. 372), that "they are likely to display inconsistent causal assertions and missed opportunities for exploring causal regularities."

In a third major strategy the investigators assume that causal regularities may be found in history. In order to identify those regularities, the researcher tries out alternative hypotheses. These may be derived from several, even contradictory theories. Ideas from distinct theories may also be combined to formulate new hypotheses that seem appropriate to explain the historical cases in question. Historical events always have multiple causes, general models tend to concentrate on only a few. Or hypotheses are generated inductively from similarities between cases that are discovered in comparative historical investigations (Chandler 1984). In contrast to the first strategy, the analysis is not guided by a preconceived general model. The theory is rather modified and generated in a constant dialogue with the historical data (Kocka 1972). The researcher is not trying to prove any existing model; instead he or she is committed to generating causal schemes that are able to explain historical developments.

In this endeavour, the researchers should avoid "the dogma of universality," i.e., the conviction that no hypothesis is worth exploring unless it can be stated as a universally applicable law. They have to be content to work with explanatory generalizations that are assumed to be "relative to a certain context or contexts" (Beer 1964, pp. 6, 9; Kocka 1972).

In this strategy, comparisons between cases are made to find new historical generalizations. Similar cases, e.g., putting-out systems in preindustrialized Germany and Italy today, can be juxtaposed in an attempt to identify causal configurations that combine to account for outcomes of interest. For example, social embed-

dedness seems to be a factor which was also present in some German preindustrialization putting-out systems (Schmoller 1891). Nevertheless, these putting-out systems also disappeared. Comparing Italian putting-out systems and these historical cases could lead to the identification of factors, that, in spite of their social embeddedness, can endanger the existence of putting-out-systems.

This "inductive strategy" that has been propagated by historians and by proponents of historical sociology, most prominently perhaps by Skocpol (1984), has been accused by sociologists of reflecting "the bias inherent in the nonsystematic nature of the sample from which they (its arguments, A.K.) were drawn" and as "empiricistic." A further point of critique is that in inductively generated theories' causal mechanisms are either absent, implicit or used in an ad hoc manner" and, therefore, "sociologists who seek consistent, testable causal explanation for historical events are ill-advised to proceed in this fashion" (Kiser and Hechter 1991, pp. 13–16). This critique overlooks the fact that all general propositions have been generated inductively. It also neglects that it is not possible to clearly distinguish hypotheses that contain causal mechanisms from those that do not (Stegmüller 1983).

Another problem is that historical events always have multiple causes (Haussman 1991). Thus, the capitalists' striving for more control over the workforce, their motivation to increase efficiency, the ideology of mass production and several other factors can be regarded as causes that all contributed to the decline of early putting-out systems. Causes of historical events need not be mutually exclusive, as Williamson argues; they can be complementary. If several factors have been identified as possible causes for a historical event, then the researcher has to clarify whether single causes alone would have been sufficient to bring about its occurrence. Events can be overdetermined, i.e., they can have several causes each of which alone would have been sufficient for it to occur. In this case it is not possible to rank causes. If none of the causes alone suffices to explain the historical event, the causes have to be regarded as *complementary*. In this case it is also unnecessary and futile to try to find out which explanation is the more adequate or the more important one. The identification of possible causes as real ones and their classification as sufficient or complementary ones is the task of a critical examination of historical sources.

If this characterization of historical explanations is accepted, the "inductive strategy" appears in a more favorable light. Its main concern is not to overlook

possible causes. The emphasis is on critical examination of historical sources. Theory building may be biased through the "unsystematic nature of the sample" but, on the other hand, a theory-induced bias in selecting and interpreting historical sources is minimized.

From "horizontal multiplicity" of causes that we have discussed so far, a "vertical multiplicity" has to be distinguished (Acham 1974, pp. 211): Conditions that have been identified as causes for specific historical events are themselves caused by conditions. The more "deep" causes, i.e., causes that influenced a number of "horizontal causes," a theory comprises, the more general and the more informative it is. General models like the ones by Marglin and Williamson claim to have identified "deep causes." However, explanations of this sort are also more susceptible to critique, since they necessarily contain assumptions on cause-event chains that are ill-specified and, therefore, not scrutinizable on the basis of historical data. Those researchers who prefer general, "deep" models should take care that the assumptions that link causes with the events that they wish to explain are specified in such a way that they can be confronted with historical sources.

Concluding this essay, it seems appropriate to point out that historical analyses within organization theory, even if performed in accordance to the third strategy, are not free of weaknesses. Since the historical material is inexhaustible, a selection cannot be avoided. This selection as well as the interpretation of events is always in danger of reflecting the ideologies of the researcher. It is no accident that Cohen and March (1986, p. 215) advocate the rule "interpret history" as a most powerful one in attempts to manipulate decision makers in organizations. This tactic takes advantage of the fact that "the belief in the relevance of history, or the legitimacy of history as a basis for action, is fairly strong," and that, at the same time, decision-makers strive to be consistent and have no time to check the appropriateness of the interpretation. As in any other theoretical approach, the results of historical analyses have to be subjected to a critical discourse. Another shortcoming of historical analyses is that recipes cannot be derived from them for the design of today's organizations. History does not repeat itself. Therefore, historical analyses can only serve to reflect on existing organizational designs and to criticize existing organizations theories. Historical analyses do not replace existing organization theory; they enrich our understanding of present-day organizations by reconstructing the human acts which created them in the course of history and by urging organization theories to

stand the test of a confrontation with historical developments.

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