THE MONDRAGON SYSTEM OF WORKER PRODUCTION COOPERATIVES

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THIS is a success story in a field where failure has been the general rule—a rule well summarized in the following statement by Paul Blumberg:

> ...Producers' cooperatives, which do involve workers significantly in management, have repeatedly been proved both economically and socially an inappropriate vehicle for workers' management. Economically, they have always been plagued with chronic shortages of capital, stemming from their inadequate initial resources, and the hostile milieu in which they operate makes borrowing from the private capital market quite difficult. In the Western world, they are economically inconsequential, especially when compared to the flourishing consumers' cooperative movement.
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> Socially, producers' cooperatives have a tendency to "degenerate" as the Webbs and others observed long ago, due in part to the lack of outside public control of their activities. This "degeneration" takes some of the following forms: transforming the cooperative into a simple profit-making, profit-seeking business, indistinguishable from a private enterprise; exploiting a monopoly situation, often to public disadvantage (as has happened in Israel) ; closing off of cooperative membership; raising the cost of membership to a prohibitively high level; and resorting to the anti-cooperative device of taking on hired labor.[1]

The Blumberg statement applies very well to the general scene, but there is one important exception: the system of production cooperatives centered in the small Basque city of Mondragón in Spain. If we can come to understand the conditions that have enabled this system to overcome the well-documented general rule, we shall advance our knowledge regarding the human potential for extending worker ownership and management in production organizations.

The system is so complex that we can present here only a preliminary interpretation based upon 1975 field work (seven weeks by Johnson, two weeks by Whyte) and extensive documentary records. Johnson will continue the study with field work in 1977, but this report is based upon the 1975 field project and subsequent analysis.

Components of the System

The first firm of the cooperative system of Mondragón was founded in 1956 by five

The Mondragón system of industrial production cooperatives in the Basque country of Spain is a major exception to the time-honored belief that production firms organized on a cooperative basis of worker ownership are doomed to a short and precarious existence. This paper traces the evolution of the Mondragón industrial firms, in association with cooperative educational, banking, and commercial institutions, and examines the personal, cultural, organizational, and economic factors that account for the extraordinary growth and dynamism of the system since its founding in 1956. The authors also describe the lessons of the Mondragón experience they believe are applicable to the development of more successful industrial cooperatives in the United States and elsewhere.

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[1]Paul Blumberg, *Industrial Democracy: The Sociology of Participation* (New York: Schocken, 1968), pp. 3–4.

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men supported by a larger group of friends; by the end of 1976 the system had grown to 65 firms with 14,665 members. The firms' production ranges widely, from the labor-intensive process of furniture making to the manufacture of sophisticated machine tools and heavy equipment. All those working in the co-op become members after a brief probationary period, with the exception of a few specialists brought in by contract to perform jobs for which there is not sufficient talent within the system.

The industrial cooperative complex was built upon three institutional bases. The first was an educational system that grew out of a two-year technical school originally founded to provide training for the young people so that they could qualify as skilled workers upon entering employment. In succeeding years the school's program was expanded to include instruction up through the college level, leading to engineering degrees, and the student body was expanded from twenty-four in the first year to over a thousand today. While the curriculum concentrates on technical subjects, the school itself is operated in the form of a cooperative.

In the years following the formation of the first industrial firms, the educational system developed two additional supporting institutions. One was Alecoop—a cooperative factory that serves a dual purpose. Students work in the firm five hours a day to earn tuition and living expenses so that they can devote another five hours to their educational program. Alecoop produces components used by the other production cooperatives and also takes on jobs in the open market.

Recently the system set up another support—a two million dollar building of offices and research laboratories and shops designed to undertake projects of long-term importance that cannot be expected to yield short-run benefits to particular firms. Although the older firms of the system have maintained their own research and development units to provide technical innovations for the near future, this new complex will enable a larger scope of planning.

The second institutional basis upon which the co-op of Mondragón was built was the League for Education and Culture, a broad association of parents, teachers, students, and supporters from the community. The league has played the important role of linking the educational system to the cooperative firms and to the community in general. Members of the league have helped to work out legal and political problems with municipalities and with the national government.

The third institution was a credit union, the *Caja Laboral Popular,* which was founded in 1958 to support the expansion of the industrial cooperatives. The Caja has been growing at an accelerating rate: in the eight years up through 1974 membership multiplied twenty-two times and assets thirty-five times. By the end of 1976 membership had reached 206,841.

Individual Leadership for Collective Achievement

Although this system has been built upon the integrated efforts of many people, its origins and main line of development can be traced to Father José María Arizmendi, a veteran of the Spanish Civil War (on the Republican side) who settled in Mondragón in 1941 and began working to revive two moribund church associations, one including parents, the other including blue-collar youth. Don José María prided himself on never having made decisions for others. Nevertheless, it was his concern for combining practical and technical development with a social mission that led to the founding of the school, Escuela Politécnica Profesional. He also wrote the first draft of the constitution and by-laws for the first production cooperative, and the document that finally emerged for that firm has provided the framework for every firm founded since then.

It was not Don José María who first proposed the rule that the ratio between top and bottom pay in a cooperative should not be greater than 3 to 1 (the then prevailing relationship between workers and supervisors in private firms), but he was influential in maintaining this exceptionally low differential. The first 40 members of the original firm, Ulgor, voted for the 3 to 1 ratio with little debate or recognition that the members were establishing a policy that would bind thousands of future members in scores of firms yet to be created. Since the policy makers aim to equate the weighted average of all rates of pay in the cooperative firm with the weighted average prevailing in comparable firms in private industry, where the ratio may be as high as 15 to 1, the Mondragón formula means that workers entering at the bottom of the scale earn substantially more and that executives toward the top of the scale earn substantially less than their counterparts in private firms. (The pegging of average wage and salary rates with private industry was designed to assure the members that the profits or surplus of the cooperative firm would be based upon superior productivity and not upon a lower wage bill.)

While others worked out the technical formulas, it was Don José María who particularly shaped the decision to distribute each member's share in profits or surplus to the accounts members held with the firm rather than paying out these shares in cash. As we shall see, this was a critical decision for organizational growth.

It was also Father Arizmendi who first urged the members to found the Caja Laboral Popular. As one of the founders of Ulgor commented, the idea seemed absurd to them at first.

> We told him, yesterday we were craftsmen, foremen, and engineers. Today we are trying to learn how to be managers and executives. Tomorrow you want us to become bankers. That is impossible.

Father Arizmendi continued to argue that cooperative production organizations could not develop to their full potential without capital, that credit would not be available to them under acceptable conditions through private banks, and that therefore they must build their own banking system. Within two years after the founding of Ulgor in 1956, the Caja came into being.

The cooperative educational system was first supported by community contributions and small tuition fees paid by students. As the cooperative production firms grew in numbers and in financial strength, they provided increasing support for education. Nevertheless, as the educational system expanded in numbers of students and especially in the more costly programs at the college level, it seemed that substantial tuition increases would be required. Don José María argued that it would be a violation of cooperative principles to exclude intellectually qualified students too poor to pay such tuition. Instead he proposed an organizational solution: Alecoop, the cooperative student-operated factory.

Was José María Arizmendi a charismatic leader? The term suggests one who speaks eloquently, stirs deep emotions, and builds a personal following. According to the founders of Ulgor, Don José María was never an eloquent speaker; in fact, especially in the early years of the movement, he often had trouble finding the words to express his ideas. It was not always easy to understand what he was getting at, yet the members listened patiently and reflectively for they sensed that he was following a vision of a better world that they could help create. Clearly he did stir emotions, but they did not come to center upon himself. He stirred people to *think* and *act*. An apt description of the essence of his leadership comes from the present Director of the Escuela Politécnica, Javier Retegui: "[Arizmendi] sees the future—and makes us face it."

Although Don José María never held an executive position, he had influence as a trusted and revered advisor at every stage in the development of the system. He was the chief actor in linking Mondragón to the surrounding social, political, and economic institutions. Through the League for Education and Culture, he was in continuous contact with authorities and local citizens. He did research on social security and health care systems to help the cooperative organizations develop needed programs that were not supported by the state. His legal research helped the cooperatives take advantage of laws enacted to help other organizations and to support other purposes.

Few individuals in history have been as socially creative as Don José María, and yet his creations never depended upon him for survival, development, and expansion. Well before his death in 1976, the leader had achieved the institutionalization of the social system he inspired and guided.

The Economic and Cultural Base

When the outsider first hears of the Mondragón system, he is likely to ask himself, as we did, "How could such a thing happen in Spain?" The fact is that the Basque country, while politically part of Spain, differs considerably from Castille and other southern provinces that have created the image of Spain projected to the outside world. The differences are linguistic, economic, and cultural. Although the Basques also speak Spanish, they have their own language, which is not related to Spanish or to any other Indoeuropean language.

When the Mondragón cooperatives began, the Basque country was one of the few parts of Spain that had a well-developed industrial tradition. There were a number of small and medium-sized metallurgic and manufacturing firms in the area, based in part on natural resources such as iron ore. Population growth and the scarcity of agricultural land had shaped a system of inheritance that displaced may young adult males from the land and into industrial towns. Spain's relative isolation from the rest of the world gave the Basques a comparative advantage in reaching the general Spanish market, which began to grow rapidly in the 1950s.

The Basques also had a comparative advantage for industrial growth in their attitudes toward manual labor. In Castille and Andalucia, for example, to be considered *hidalgo* (meaning illustrious, derived from *hijo de algo,* literally "son of something" or of somebody special), one must be above working with his hands. In the Mondragón area, on the other hand, according to native writers

> ...in order to be considered "hidalgo" it was enough to demonstrate that one was descended from ancestors native to the province, and to dedicate oneself to manual work was not an obstacle, as in other parts of the country, to being hidalgo.[2]

In addition to the enterprising spirit and dedication to industrial work on which the Basques pride themselves, there is another very important cultural characteristic, called by the Basques the "associative spirit." We see this spirit in the after-work promenade in Mondragón (as in other Basque cities). Groups of three to six or eight men or women walk together from bar to bar, taking a few sips of wine at each stop and then moving on. Such groups come together directly from factory or office, and, in the same group we may see men in rough work clothes and others with white collars, ties, and business suits. If we watched day after day, we would see the same men together again and again. Basque social groups last for years.

This associative spirit, which cuts across class lines, is supported by their high evaluation of social equality. Greenwood points out that the Basques (especially those of Guipúzcoa) have traditionally held the concept of "collective nobility."[3] Regardless of social class differences, all native born Guipúzcoans are of pure Christian blood and thus considered "noble" (and therefore equal) by definition. Caro Baroja has made a similar observation regarding social class differentiation in the Basque country, which he calls a matter of "private right" *(derecho privado)* as opposed to "public rights" (*derecho público*), meaning that inequality has not been accepted beyond the level of personal interactions of people involved in exchange processes.[4] In a study of conceptions of equitable payment for work, Johnson found that the students in the cooperative school-factory in Mondragón manifested an overwhelming preference for egalitarian choices.[5]

The prevalence of traditional gustatory societies tells us not only that Basque males love to cook and eat their justly famous cuisine but also that *they trust each other.* Díaz-Plaja estimates that there are in the Basque country about 2500 of these societies

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[2]José Letona Arrieta and Juan Leibar Gurich, *Mondragón* (San Sebastián: Gráficos Izarra, 1970), p. 101.

[3]Davydd Greenwood, *Unrewarding Wealth* (New York: Cambridge University Press, 1976), pp. 10–12.

[4]Julio Caro Baroja, *Los Vascos* (Madrid: Ediciones Istmo, 1971).

[5]Ana Gutiérrez Johnson, "Cooperativism and Justice: A Study and Cross-Cultural Comparison of Preferences for Forms of Equity Among Basque Students of a Cooperative School-Factory" (M.S. Thesis, Cornell University, 1976).

with some 35,000 members, an average membership of 14.[6] Each society owns or rents a meeting place, which consists primarily of kitchen and dining room. Here the members eat and drink together at regular intervals. Beyond that, each member has a key and is free to come in at any time to eat and drink anything in the house. On the wall is a pad on which the member records what he has consumed and signs his name. At the end of each month, he receives a bill from the treasurer. Basques tell us that cheating is unheard of. If a member fails to record something he has taken, it is only because he forgot it; when in doubt, he errs on the side of recording more than he consumed.[7]

The cultural base is obviously important, but it should also be noted that Alecoop, the Caja, the school, and the firms are all designed to reinforce sentiments of mutual trust and social solidarity.

The Management of Growth

The expansion of the production cooperatives has been managed in two ways: through the fission of existing firms and through the creation of new firms by the Caja Laboral Popular. The growth and fission of firms have been made possible by the reinvestment policy of the system. According to the original program, which has been maintained with little variation, at the end of each fiscal year the surplus (profit) of the cooperatives is divided into three parts. A total of 30 percent is set aside for two purposes. Ten to 15 percent goes for social benefit to the community (including support of the educational system), and the remaining 15 to 20 percent is set aside as a reserve fund to be maintained by the cooperative firm. The remaining 70 percent is distributed to the members in proportion to hours worked during the year and rate of pay received. This bonus is not paid in cash to members, however; it is deposited to the account each member holds with the firm. This fund is treated by the firm as debt to the members or bonds on which interest is paid annually. The minimum interest paid is 6 percent, supplemented by (a) an allowance for increases in the cost of living, and (b) an additional variable interest up to 3 percent depending on the size of the surplus. In recent years members have been receiving about 13 percent on their accounts. A member in good standing who leaves the firm with proper notice is allowed to take out 80 percent or more of the money deposited in his account, the rest being retained as a reserve fund for the firm. If a member is discharged for disciplinary reasons or leaves without notice, the firm may retain up to 30 percent of his account. When the member reaches retirement age, he may withdraw 100 percent of the money in his account. With a very young system, there have been few retirements so far. So as to avoid serious drains on capital in future years when many members are retiring, the Caja Laboral Popular, the credit union in which the accounts are deposited, may try to persuade members to accept annuities rather than lump sum payments. It is also considering joining Spain's social security system.

The prevailing policies regarding distribution of surplus were written into the constitution and bylaws of Ulgor, the first firm. Within the first two years, when Ulgor had only 40 members, two of them proposed that the members' 70 percent be paid out in cash. This proposal was vigorously debated and rejected, primarily in response to the perceived need to strengthen the firm. In effect the members voted to uphold a policy of deferred personal gratification and accelerated organizational growth. This policy has not been seriously challenged in recent years.

The founders of the system believed that

[6]Fernando Díaz-Plaja, *El Español y los Siete Pecados Capitales* (Madrid: Alianza Editorial, 1966).

[7]For studies of Basque culture, see particularly Caro Baroja, *Los Vascos* and *Estudios Vascos* (San Sebastián, Editorial Txertoa, 1973). For additional general information on Mondragón, see F. Aldabaldetrecu, and J. Gray, "De L'Artisanat Industriel au Complexe Coopératif: L'Experience de Mondragón." *Archives Internationales de Sociologie de la Coopération* (July–Dec. 1967) Paris; Robert Oakeshott, "Mondragón: Spain's Oasis of Democracy," in Jaraslov Vanek, ed., *Self-Management: Economic Liberation of Man* (Baltimore, Md.: Penguin Books, Inc., 1975); and Pablo Trivelli, "Algunas Consideraciones sobre las Cooperativas Industriales de Mondragón," *Revista Eure* (No. 7) Santiago, Chile.

it would be easier to maintain a true cooperative with small organizations than with large ones. Therefore, as a firm reached the point where it developed a new line of production that could provide a basis for a new firm, that new firm was spun off the original firm. Thus Ulgor has given birth to six other firms. To avoid prejudicing the interests of members who shift to the new firm, which cannot be expected to be highly profitable at once, and to maintain economies of scale, the six firms growing out of Ulgor have combined with the original firm to establish a cooperative conglomerate called Ularco. Finance, legal services, market research, and personnel functions are centralized within Ularco. The earnings of all the Ularco firms are pooled and the members' 70 percent is paid out according to the same formula regardless of firm membership. The centralization of personnel administration also makes it possible to shift members from one firm to another within Ularco, so as to avoid situations where one firm is laying off members while another firm is expanding.

The creation of new firms is the responsibility of the entrepreneurial department of the Caja Laboral Popular. Up until about 1973, the Caja simply responded to proposals brought to it by prospective founding members, but the savings deposited have risen so rapidly that it has become necessary for the Caja to develop an active promotional program.

The entrepreneurial department now has approximately 70 employee-members and a program of social and economic research and technical assistance in the development of new firms. While the first firms were established in or around Mondragón, the Province of Guipúzcoa (in which Mondragón is located) has the highest density of population of any comparable area in Europe and in recent years has had close to full employment. Thus new firms launched there would have to attract migrants, further compounding the population problem. The Caja therefore now concentrates its entrepreneurial efforts outside of Guipúzcoa—but still within the four provinces making up the Basque country. Also, in response to the increasing level of education and technical training within the Basque country, the Caja is now favoring the creation of more capital-intensive enterprises, which also provide opportunities for high levels of skill and training. These points indicate that the Caja is becoming increasingly important in the social and economic planning for this region of Spain.

In its entrepreneurial program, the Caja puts as much stress upon finding a group of people prepared to band themselves together to form a cooperative as it does upon the technical and economic feasibility of the enterprise. When the Caja finds such a group, its representative begins exploratory discussions regarding the type of enterprise to be created. When the discussions become serious, the Caja representative raises the financial question: is each member of the founding group ready to put some of his resources into the new enterprise? For groups that are not prepared to back their rhetoric with money, the project goes no farther. The commitment of money by the surviving groups is taken as evidence of seriousness of purpose, and the plans move on to the next stage.

The Caja does not finance any new enterprise without a feasibility study. The group is asked to nominate a person qualified to make such a study. If the group cannot recommend anyone with the required qualifications, the Caja proposes two or three individuals and asks the group to choose one of them. The feasibility specialist then works for one to two years within the Caja, his salary being paid by the Caja but being charged as a debt to the enterprise that is still to be born.

Once a project is approved, 20 percent of the capital of the new enterprise is put up by the founding group, another 20 percent by the Spanish government through a program that makes loans to any new firm in terms of the number of jobs created, and 60 percent by the Caja. Many private firms fail for lack of working capital. The Caja meets this need for its new firm by covering the deficits during the first two years of its operation. However, the system is built upon the principle of not giving anything away; in addition to the salary of the person making the feasibility study, the

60 percent of the capital provided by the Caja and the sum of the losses incurred during the first two years all are charged as debts of the new firm to the Caja.

In the recent past, members of new firms have been required to contribute approximately $1800 each. Anyone who does not have $1800 can borrow from relatives, from a bank, or even from the Caja Laboral Popular. The resources required of the founders of a collective firm are much less than what the launching of a private enterprise would cost its entrepreneurs, who would not have 60 percent of the support provided by the Caja nor any arrangement to support the losses through the first two years.

The Caja also provides management consulting services, especially to the new firms, helping them to set up the organization, determine the qualifications for the various positions, establish the system of accounting and cost control, and so on.

The Mondragón system is exceedingly dynamic, both economically and technologically. Not only has it become the largest producer of refrigerators and stoves in Spain, but it has also been selling approximately 20 percent of its output in international markets. Furthermore, Mondragón has been able to outbid private firms in industrialized nations for contracts to build turn-key industrial plants in developing nations. Also, while no set of firms can be completely independent of its economic environment, the record of Mondragón in the recession year 1974 provides evidence of its remarkable strength. During 1974 the Mondragón record shows membership (employment) up 7.5 percent, surplus (profits) up 26 percent, and exports up 56 percent.

Social Gains and Social Problems

Up to this point we have demonstrated that Mondragón is exceptional among production cooperatives for its economic and technological dynamism. Has the system produced comparable social satisfactions?

That question cannot be answered in an introductory statement such as ours. Mondragón personnel people have carried out some employee surveys that indicate a good deal less than complete job satisfaction and yet show practically no one indicating any likelihood of leaving his firm.

The meaning of the survey responses can only be evaluated, for our purposes, when we have opportunities to compare them with responses of workers in comparable private industry employment. The expressed commitment to stay with the firm is supported by the exceedingly low turnover figure of 3 percent per year—and some of the 3 percent is accounted for by young wives dropping out to have children. This low figure is even more impressive if we place it in the context of a labor market in the Basque country that is becoming increasingly tight in recent years, so that members have not lacked alternative opportunities. It may be argued that many more members would drop out if it were not for the 20 percent of their original contribution and profits credited to their account that they would have to leave behind them. On the other hand, in many firms in the United States employees accumulate substantial equity in an eventual pension that they lose entirely upon quitting, and yet our turnover rates tend to be far higher.

We do not want to give the impression that we have discovered utopia. Especially in recent years, the system has encountered increasingly pressing problems that are requiring its leaders to re-examine the structure of the firms and the social processes involved in instituting change and in conflict resolution. Here is a brief interpretation of the problems on which Mondragón organizational leaders are now working.

The founding members believed in democracy and cooperation but they were also dedicated to hard work. They believed further that, in order to compete with private enterprise, they would have to adopt the established methods of modern private management and industrial engineering. Thus, although top management is selected by the members, members of middle and lower management are appointed from the top down, and the immediate supervisor may direct his work force just as autocratically and inflexibly as his counterpart in the private firm. Furthermore, the organizational planners unquestioningly followed the pattern of "scientific management" in breaking jobs down into simple, routine operations and in structuring the work flow with assembly lines. Only one major principle of "scientific management" was rejected by the system: individual or group piece rates. Everyone is paid for the time worked, with the rate determined by the observations and estimates of industrial engineers —an aspect of procedures that became a point of controversy in recent conflicts.

It is clearly no coincidence that the most serious labor conflicts and the only strikes experienced by the system have occurred within Ulgor, the giant of the system. Even though Ulgor has spun off six new firms to make up Ularco, its success in becoming the largest producer of refrigerators and stoves in Spain brought with it steady expansion in numbers of members until, at the time of a brief strike in 1974, Ulgor had over 3500 members in two plants. Size and growth together had made it impossible to maintain the informal, face-to-face relations that can prevail in small organizations.

As in the other firms, the members of Ulgor get together once a year to elect the Management Board, which in turn selects the general manager and other key members of management. This is the only direct influence the members have through formal channels in choosing members of management and guiding their policy.

There is another organ—the Social Council—designed to provide the members with channels for influencing management decisions on matters affecting member welfare. Intended to provide a more direct form of representation, the council is supposedly made up of one representative for every ten members, with constituencies being set up in rough correspondence to departments and work units. The maximum size of any Social Council is limited, however, to sixty members. This has the practical advantage of avoiding creation of a body so large as to be unwieldly, but, in the case of Ulgor, it results in a ratio of one representative to more than fifty members, compared to one-to-ten in nearly all of the other firms.

There appear to be more deepseated problems with the Social Council than this question of ratios between representatives and members. According to the constitution of the cooperatives, the chairman of the Management Board is also chairman of the Social Council and the Social Council has no direct power; it functions only in an advisory capacity to management.

There has apparently been a growing belief among members of Ulgor that the Social Council serves mainly as a one-way channel of communication from management to workers and does not provide channels through which workers can influence management. Since the Management Board has both the power and, apparently, the more interesting and challenging jobs to do, socially and politically active members are naturally inclined to run for positions on the Management Board, and Ulgor has found it increasingly difficult to recruit candidates for the Social Council.

The problem came to a head in the course of a program of comprehensive re-evaluation of jobs throughout Ulgor. Management had come to the conclusion that the existing rates of pay no longer reflected the responsibilities or the skill and knowledge requirements of positions, and worker members had also been complaining about some aspects of the rate structure. Thus the re-evaluation was initiated. The studies were carried out in a fairly traditional industrial engineering manner. Although members were interviewed to get a detailed account of their activities and responsibilities and were periodically informed, the job evaluation committees made all decisions as to how the evaluations should be weighted. One of the general conclusions of the job evaluation was that managerial positions had grown in responsibilities over the years without corresponding increases in pay, and therefore an upward revision of the point score for many of these positions was recommended.

At the same time, the evaluators found that the work of many lower level positions had been simplified so that some reduction in point score for those positions was in order. With the new rate structure, the committee also introduced a supervisory evaluation of individual workers, with a possible range from zero to plus .03. That is, the individual whose job was classified at 1.3 could be paid at the rate of 1.30, 1.31, 1.32, or 1.33—the small but symbolically significant differential being determined entirely by the judgment of the worker's immediate supervisor.

Even though the job evaluation program retained the 3-to-1 range between top and bottom jobs and, on the average for all jobs, the new rates were slightly higher than the old ones, the release of the committee's final report provoked a storm of protest. There was widespread protest against the supervisory evaluation, coupled with a demand to eliminate it and simply add .03 to the rating of all jobs. In an attempt to cushion the blow to those whose job point scores had been reduced, the committee ruled that no one would have his pay reduced in his present job and any reduction would take effect only as vacant jobs were filled. This did not pacify the critics, some of whom claimed to be especially offended that management would decide that their jobs were not worth their current pay rates but would simply give them the difference between the old and new rate.

The job evaluation committees had established a grievance procedure through which point scores on *individual* jobs could be changed, and many were in fact changed. However, no provision had been made for changing the bases of the job evaluation, which had been established through a two-year study and discussion process among committee members.

The leaders of the protest movement sought to place their grievances before the Management Board. The Board ruled that, as specified in the constitution, such matters must be taken up first with the Social Council. Some of the protesters were members of the Social Council, but they had come to the conclusion that this organ was useless as a channel for redress and they insisted upon meeting with the Management Board. When the Management Board stood firm in its refusal to meet with them, the protesters turned to direct action and organized a strike. The strike was very brief and not effective in shutting down production altogether. (It involved both Ulgor plants and 414 members and began June 27; all were back at work by July 4.) The constitution of Ularco distinguishes between sympathy strikes in support of general political positions and strikes in response to internal problems of the firm. The Management Board is free to impose mild if any penalties in the case of a sympathy strike, but expulsion from membership is supposed to be automatic for those provoking a strike in response to internal problems. Accordingly, 17 of the strike leaders were expelled and 397 received lesser penalties. They in turn followed the constitution and got the required one-third of the membership to sign a petition calling for a general membership meeting to consider the revocation of penalties. After several tense and stormy meetings, the membership voted to sustain management's position, and the dismissals were upheld by a vote of about 60 percent of those attending.

While the job evaluation results were sustained by the membership, the strike was obviously a traumatic experience for leaders and followers alike. This experience precipitated a period of re-examination of the structures and processes of governance of the cooperative. The Social Council undertook a self-study aimed to determine how it could become a more effective organ for representing worker problems to management. This self-study process was still going on at the time of our field trip, some months after the strike.

Restructuring Work

As a result of the job evaluation process itself and the aftermath of the conflict, leaders of the system set out to inform themselves about what was being done in other parts of Europe (especially Sweden) regarding the restructuring of the work place. The first innovations along this line in Mondragón were begun in 1974 in Copreci, a member firm of Ularco, with a work force of 832 at that time devoted to manufacturing components for domestic appliances. A large part of the work here had been organized and based on assembly lines. With the strong support of the Workers Council of Ularco and Copreci, the personnel staff—working closely with Copreci management and engineers—began exploring ways in which the quality of working life might be improved without sacrificing productivity.

Although management officials were concerned about worker discontent, they were not responding to any direct demand for work restructuring. The crisis had made management painfully aware of the inherent contradiction between the typical job evaluation system, which attaches monetary value to factors such as responsibility and initiative, and Tayloristic systems of work organization, which do not permit any scope for such factors among low-level jobs. The planners therefore recognized that, if they were going to act rationally, they would have to change either the job-evaluation system or the jobs to which that system would be applied. Staff people and managers then began exploring ways of restructuring jobs to offer greater opportunities for such characteristics as personal responsibility and initiative, which were so highly valued in their social philosophy.

Innovations were introduced first into those departments in which workers and supervisors seemed particularly receptive and interested. Each potential change was discussed thoroughly with the group and the supervisor. Management made it clear that the changes would be voluntary: those who wished to continue to work in the traditional assembly line would be allowed to do so. By the time of our visit (April 1975), assembly lines had been eliminated in several departments. Members did their work around tables and had taken over most of the traditional supervisory functions of organizing, directing, and inspecting their own work. The personnel staff also worked with these semi-autonomous groups to help them manage their relations with other work units such as those supplying them with parts, maintenance, and shipping. Although each group agreed to meet a minimum standard of output for a time period, as specified by management, the members were free to go at their own pace, working faster and slower in different time periods instead of at the constant pace dictated by the assembly line. Such changes were accompanied by a new pattern of consultation and discussion with worker members, so that—in Copreci at least—the democracy that had prevailed in community government was steadily extending itself into the work places.

Although it is too early to present detailed results of these changes at Copreci, the indications of the first few months were highly encouraging. Worker surveys indicated favorable reactions to the changes and increased job satisfaction. Management reported that on the simpler assembly jobs, productivity had increased. On more complex jobs, the previous output standards had been maintained but with an appreciable reduction in rejects and reworking of units, which meant an increase in overall productivity on these jobs also.

At the time of our field study, management had not yet taken any steps to change the structure of work in Ulgor, where the most critical needs exist. The problem there was not lack of awareness of needs but existence of technological constraints. For the small assembly operations of Copreci, the work tables could be substituted for assembly lines with small cost to the cooperative. In Ulgor, the situation is completely different. There the conveyor lines are built to move large and heavy refrigerators and stoves through the plant. Abandoning this imposing assembly line system would require major new investments. At the time of our visit, engineers were working on plans for the restructuring of Ulgor, but because the existing technology could not be changed piece-by-piece, as at Copreci, the Workers Council naturally required more extensive studies and cost estimates before agreeing to support such a major change.

Conclusions

When first hearing of Mondragón, those who long ago concluded that producers' cooperatives have no future in the industrialized world find it difficult to take the system seriously. They tend to reject its significance in the following terms:

1. No general conclusions can be drawn from a single case.
2. Mondragón's success is dependent upon the unique Basque culture.
3. Mondragón's success is dependent upon a unique human being, Don José María Arizmendi.

Therefore, they conclude, the saga of Mondragón is a human interest story of no general significance.

Let us assess these criticisms. In the first place, it is misleading to dismiss Mondragón as if it were a single case, comparable with individual firms that have appeared and disappeared in the course of U.S. and European history. Mondragón includes a growing number of industrial firms, an extensive network of institutions for savings and industrial investment, an educational system, a student-operated industrial cooperative, a research and development center, and a number of consumer cooperatives—all linked together in mutually supporting relationships. Nothing remotely like the Mondragón system has ever appeared before anywhere in the world.

In the second place, Mondragón clearly runs counter to two of the key generalizations applied by Paul Blumberg to industrial producers' cooperatives and noted at the outset of this article. Mondragón is not "plagued with chronic shortages of capital." Capital accumulation has been so rapid that the Caja Laboral Popular has had to develop an extensive entrepreneurial campaign, creating new firms to utilize the available capital. Also, barring a complete financial collapse of the whole industrial and banking system, there is no possible way in which a Mondragón firm can "degenerate...into a simple profit-making, profit-seeking business."

What should a scientist do when he encounters phenomena that appear to violate previously well-established generalizations? If he immediately seeks reasons to disregard the new evidence, he is unlikely to contribute to the advance of knowledge. Some skepticism is, of course, justified, but the scientist should at least consider the possibility that the new findings may have some general significance.

Third, Mondragón, is not robbed of general significance because of the role of either the Basque culture or Don José María Arizmendi, although clearly neither of those factors is transferable to other settings. It may indeed take a great man or woman to create and further develop a social invention of the magnitude of Mondragón, yet lesser human beings can examine that invention and seek to apply what they can learn from the structure and social process of Mondragón to organizations and organizational systems they themselves seek to build within their own cultures.

The general significance of Mondragón appears to us to be in certain structural and policy elements. (1) Mondragón has solved the capital accumulation problem in two principal ways. Since 70 percent of the profits are distributed to the members only by being credited to their accounts, the firm has 85 to 90 percent of profits to reinvest, instead of 15 to 20 percent (the reserve fund). In addition, drawing on the *private* savings of its rapidly growing membership, the Caja Laboral Popular has financed roughly half of the growth of the industrial firms.

This experience suggests that if the founders of an industrial cooperative firm want that firm to survive and maintain its cooperative character, they should establish a policy of retaining member shares of profits in the accounts of the firm rather than paying them out in cash. Such a policy must be established at the outset or not at all, since the members can hardly be persuaded later to give up what they have been receiving as current income.

Since in the United States credit unions would be barred by law from investing in risky new firms, the Caja model may not be immediately tranferable. However, a bill to establish a consumers' cooperative bank is currently before Congress, and such support may some day be extended to producers' cooperatives.

2. The Caja has developed an entrepreneurial and planning organization that has become a major influence in the social and economic development of the Basque region. Instead of being guided by principles of *profit maximization,* the Caja looks upon profits as a *limiting factor.* The firm to be created must be judged to be economically viable, but, beyond that threshhold, investment decisions are based upon judgments of the social and economic needs and interests of the people directly involved and in terms of long-range plans for the development of the region.

In other countries, industrial producers' cooperatives have arisen and disappeared as isolated cases, having little or no relation to each other. Such firms have not had a supporting organization like the Caja, constantly creating new cooperative organizations. Nor have they had policies and procedures allowing them, as they grow, to spin off new cooperative firms, such as the six firms born out of Ulgor.

3. Mondragón has established a form of ownership that makes it practically impossible for the industrial firms to revert to private ownership. In the United States employee-owned firms have generally been based upon individual stock ownership. Under that form of ownership, the firm can disappear or lose its cooperative character either because it fails or because it is too successful. Success calls for expansion, but the original employee-owners are not anxious to dilute their equity by having the firm issue stock to newly hired workers. In addition, when the firm has been successful over a number of years, retiring employee-owners will hold stock valued so high that incoming workers will not be able to buy into the firm.[8] Or, as recently happened in the case of the Kansas City Star, a private investor may make an offer that the employee-owners feel they cannot afford to refuse.

There are ways of organizing firms on a one-worker-one-vote basis and protecting the continuation of this form even under current U.S. laws.[9] But unless founders of new employee-owned firms have something like the Mondragón model in mind, they are likely to establish ownership in the traditional U.S. style, with potential power directly linked to the number of shares owned. They will thereby be practically guaranteeing the eventual disappearance of the firm as an employee-owned enterprise.

4. The integration of mutually supporting organizations—from education to banking to research and development to manufacturing—has clearly been important to the success of the Mondragón firms. We cannot expect such a fully integrated organizational system to develop in the United States, and yet past research and experience suggest that the cooperative industrial firm existing as an island in a sea of private industry and commerce has poor prospects for long-run success. Therefore, those who seek to apply Mondragón lessons to the development of industrial producers' cooperatives in the United States would be wise to examine the possibility of building some of the supporting and collaborating organizations that may be essential to the long-run success of the industrial cooperative.

Yet other important lessons can be drawn from the difficulties and partial failures encountered by Mondragón. First, for self-managed organizations, "Small is beautiful," to extend the doctrine propounded by Schumacher for technology.[10] The founders of Mondragón saw expansion in terms of the spinning off of parts of existing firms or the creation of new ones rather than in the building of giant enterprises. In fact, six new firms have been spun off of Ulgor, although, for reasons beyond the scope of this paper, Ulgor continued to grow, reaching over 3500 members at the time of its most severe labor troubles. In fact, by the end of 1974 more than a quarter of the total membership of all the industrial firms was within Ulgor.

When a firm has only 100 to 200 members—as is the case in most of the firms—everyone knows everyone else, and considerable worker participation in decision making may take place informally. A firm as large as Ulgor, however, has long since passed the limit where informal social processes can offer workers a sense that they are participating in decision making. Leaders of the Mondragón system are currently still struggling with the task of creating a formal system for promoting large-scale participatory democracy.

Second, there is an inherent contradiction between Taylorism (or "scientific management") in the organization of industrial work and one-worker-one-vote governance of the industrial firm. This contradiction was not recognized in the early years of the Mondragón system. The founders of Ulgor

[8]Katrina V. Berman, *Worker-Owned Plywood Companies: An Economic Analysis* (Pullman: Washington State University Press, 1967); and Carl J. Bellas, *Industrial Democracy and the Worker Owned Firm* (New York: Praeger, 1972).

[9]See George Benello and David Ellerman, "The Funding of Self-Managed Enterprises," *News From the Federation for Economic Democracy*, Vol. 1, No. 1 (1977).

[10]E. F. Schumacher, *Small is Beautiful: Economics as if People Mattered* (New York: Harper and Row, 1973).

believed that in order to compete they had to adopt "modern" methods of management, a theory that led them to design organizations with assembly lines, work simplification based upon specialization and routinization, close supervision, and so on.

It is only in recent years that the inherent contradiction has become recognized. Now, while they continue to regard the one-worker-one-vote principle as a necessary feature of their system, the policy makers have recognized that a single annual election of the Board of Directors does not give the members a sense of participatory democracy nor does it by itself permit the full development and utilization of human talents and efforts within the work place. As they are now consciously working through the contradictions of Taylorism versus participatory democracy, the policy makers are vigorously experimenting with new forms of work organization, eliminating assembly lines, developing autonomous work groups, and setting up processes of worker participation in decision making at the shop level.

This process of resolving contradictions was still in its early stages at the time of our field work in 1975, but already one of the firms had made changes in work organization comparable in magnitude and significance with the most advanced work along this line taking place in Scandinavia and elsewhere. The speed of change is impressive testimony to the fact that the leaders of Mondragón are not simply following a doctrine laid down for them years ago by a remarkable founder but are building a learning system that facilitates their adaptation to new problems and new conditions.