

Odyssey of a Socialist in the Business School World

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Abstract

This is an edited version of my remarks at the 2020 Academy of Management on receiving the Organization and Management Theory Division's Distinguished Scholar award. I review the main steps of my intellectual trajectory, aiming to show how it has been enriched both by my engagement with "classic" scholars in our field—most notably Marx, Gouldner, Weber, Schumpeter, and Polanyi—and by my commitment to socialist values. I offer my case, with its strengths and weaknesses, in the hope of inspiring reflection on the role in our scholarship of such classics and our personal values, whatever they may be.

Keywords

Marx, Gouldner, Weber, Schumpeter, Polanyi, socialism

OMT has long been my intellectual home at the Academy, so I feel immensely honored by this award. I am immensely grateful too, because my work has been guided by personal values—socialist ones—that not all my colleagues share, and I am gratified that I have been able to bridge that gap. Motivated by this twin reaction, my talk will retrace the main steps of my intellectual journey, and I will try to show how each step was both indebted to OMT's collective intellectual heritage and guided by socialist values. A case study, if you will, of a personal odyssey, in narrative rather than analytical or scholarly form.

The role of values in science is of course the subject of an old debate, and it is a particularly important one today. On the one hand, perhaps some of you feel that we already have too many scholars who let their values distort their work and thereby undermine the integrity of our scientific enterprise. But on the other hand, too many of our colleagues, under intense publish-or-perish pressure, have no other value guiding their work than getting the next article accepted.

As concerns social sciences such as ours, I don't see value-neutrality as a useful goal. Moreover, many of us have been challenged to ensure our scholarly work has more "impact": we have some choice in what kind of impact, whom we want to impact, and how, and those choices are deeply value-laden. The question before us is thus: how can we be responsible in the use of our personal values in our work? How can we combine value commitments and scientific objectivity? Perhaps my case, with its strengths and weaknesses, might prompt some useful reflection and discussion.

The Wider arc

I grew up in Australia, in a socialist family, indeed communist until the late-1950s. My father had been in the Jewish communist underground in Paris during World War II, and he and my mother were politically active in Australia after the war. And before them, my grandparents were socialists in Poland. So, I grew up in a micro world where we took it for granted that (a) a lot of the suffering we saw around us was unnecessary and it was our duty to help overcome it, (b) while many factors (racism, sexism, stupidity, etc.) contributed to that suffering, capitalism was a root cause, and (c) capitalism was just one phase of history, hopefully to be superseded by a superior, socialist phase. Those values have stayed with me and informed my research career. They led me to an abiding interest in Marxist theory, which seemed a particularly powerful lens through which to understand the issues that preoccupied me.

I dropped out of university after the first year in Australia, then travelled and grew up a bit. I ended up in 1974 in graduate school in Paris, focusing on macroeconomics. By happenstance, I found myself working for the Centre d'Études de l'Emploi, where I met a wonderful team of researchers specializing in field research. With them, I visited factories

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and offices, mainly studying technology and work organization. I was fascinated by what I saw -- in particular by the combination of conflict and cooperation in everyday work. That fascination has fueled my work ever since. A better world—a socialist one—would surely be one where the class-based conflicts I observed would be obviated, where our daily work served a meaningful purpose, and where we thrived in doing it: but what kind of workplace would that be? And what kind of political-economic system could foster it?

My thinking on this has evolved in five main phases marked by a series of case studies and by my engagement with some of OT's classic thinkers. Let me briefly summarize them here so you have an overview of the following sections.

First, for my dissertation in France, I studied the computerization process at La Société Générale—one of the biggest French banks at the time—and that led to my engagement with Labor Process Theory and a deeper reading of Marx. This reading highlighted the simultaneous and contradictory imperatives of cooperation and domination that structure work under capitalism.

The second phase built on the first: if socialism means that large-scale formal organization would replace decentralized markets, and if large-scale organization means bureaucracy, we surely need to know if bureaucracy is intrinsically alienating, as so much of the literature argued. While at Stanford, I studied NUMMI—the GM-Toyota joint venture in Fremont, California—and that led to my engagement with Gouldner and other classics of organizational sociology. NUMMI offered evidence that large-scale bureaucracy could be enabling rather than coercive and alienating.

In the third phase, I tried to understand the organizational conditions that led to an enabling rather than coercive form of bureaucracy. Coming to the University of Southern California, I studied several other organizations, in particular some units of Computer Science Corp.—a very large software services company (subsequently bought by EDS, and which in turn was bought by HP). This research led me to Weber. Working with Charles Heckscher (at Rutgers), we have been theorizing the emergence of a new kind of value-rational organizational form, distinct from Weber's collegial type, one that we call collaborative.

The fourth phase aimed to put the emergence of this collaborative form in longer historical perspective. Working with Zlatko Bodrožić (at Leeds Business School), I found in Schumpeter a way to think about how the succession of technological revolutions drove changes in management models over the past couple of centuries.

Finally, most recently, I have zoomed out further to ask how this collaborative form of organization could be generalized. My thinking has been stimulated by a new kind of case—the climate crisis and the organization of the broader political-economic system that is needed to overcome it.

Building on Polanyi, it seems clear that even strongly regulated capitalism cannot reembed the economy effectively enough. To meet the challenge of climate change, we need to bring value-rationality to bear not only on the governance of individual enterprises but also on the governance of the economy as a whole—displacing capitalism's reliance on the instrumental rationality of market competition. So, I have been exploring how a value-rational, collaborative form of the state could play a transformative, rather than merely regulatory, role in the economy.

From Labor Process Theory to Marx

In my dissertation field research on La Société Générale, I found that computerization had led to an upgrading of average skill requirements. I was struck by the contrast between this outcome and the predictions, made at the time by left-wing unions, that computerization would deskill work. The same idea had emerged independently in the US, led by Harry Braverman: that the implementation of production technologies under conditions of capitalist domination would lead inevitably to the deskilling and degradation of work. Progressive unions should therefore organize to resist. This line of argument was taken up and developed in organization studies by Labor Process Theory.

When things worked out so differently in France, the unions lost credibility. I tried to identify where their analysis went wrong. Going back to Marx, I argued that Labor Process Theory, while claiming Marxist lineage, was missing something important in Marx, because it focused only on the exploitative, domination side of work activity, and missed its tension with the cooperative side. I interpreted this tension as what Marx calls a “real contradiction”—a relationship between two things that simultaneously presuppose and oppose each other.

Capitalist production, driven by profit and accumulation, is based on the production and exchange of commodities—things produced for sale rather than direct consumption. Commodities embody a real contradiction between their use-value and exchange-value. Without use-value for the purchaser, no sale ensues, and no exchange-value materializes for the seller. However, the use-value for the purchaser is a complex, multi-dimensional bundle of sensuous and mental utilities—a value that is not amenable to monetary quantification. Correspondingly, the capitalist production process creates both use- and exchange-value, and that contradiction is reflected in the structure of production process: it is simultaneously a cooperative labor process producing use-values by engaging what Marx called the “collective worker” (workers, managers, engineers, etc. cooperating to get the work done) and an exploitative valorization process producing exchange-value by paying employees a wage that corresponds to their living standard rather than to

the value they produce (thus pitting employers against employees over pay and working conditions).

Understood this way, the labor process is continually reshaped not only by its interaction with the valorization process (which expresses the capitalist “relations of production”), but also by the cumulative advance of technology (which expresses the progressive development of the “forces of production”)—and the development of workers’ skills is part of the development of those forces of production. Marx applauded capitalism’s stimulation of the development of those forces, and saw in the emergent result a “socialization” of production. Just as the individual is socialized by internalizing the ambient culture, production is socialized as the productive capability of any one enterprise is ever-less dependent on its private, locally-accumulated know-how, and is ever-more augmented by the capabilities it leverages from the wider society—from its labor force (more educated and thereby more skilled), its suppliers (more advanced materials and equipment), the (expanding) sphere of public science and technology.¹

I called my reading of Marx “structural,” to highlight the centrality of this structural contradiction between forces and relations of production, and to contrast it with readings that accorded centrality instead to class conflict between workers and employers. (Mine was an older reading of Marx: tongue in cheek: I called it “paleo-Marxist.”) Both readings have the same starting point: by definition, in a capitalist society, capitalists usually have the upper hand in the class struggle, and we can assume that capitalists generally use new technology to further advance their interests and further exploit workers. From that starting point, the conflict view concludes that work will inevitably become progressively deskilled – cheaper to employ, and easier to control. In this perspective, it is hard to explain how a major wave of technological change, such as had swept French banks, had resulted in skill upgrading.

By contrast, in the structural reading of Marx, it is obvious that capitalism generates both skill upgrading tendencies and countervailing deskilling tendencies, and we expect that the former will tend to prevail over the long term, notwithstanding deskilling eddies running against the broader upgrading current. In the structural view, class conflict is a less fundamental factor than this structural contradiction, since the form and content of class conflict are themselves influenced by the evolution of the forces and relations of production and by their evolving contradiction.

Coming to the US and the business school world, however, I found it difficult to engage the management journals in those Marxist and Labor Process Theory debates. By contrast, OT provided a rich repertoire of concepts for pursuing my investigations. My overarching research strategy has therefore been, implicitly or explicitly, to put Marx into dialogue with other thinkers seminal for the OT field. Those seemed to me, and still seem, bridges worth building.

From Marx to Gouldner

It took me a while, but eventually I found my feet in OT, mainly through my study of NUMMI—New United Motors Manufacturing, Inc. In 1987, I had a chance to visit the company, located in Fremont, across the San Francisco Bay from Stanford University, where I was working at the time. NUMMI was a joint venture between GM and Toyota, launched in 1984. This was Toyota’s first full-scale assembly plant outside Japan, and they cautiously opted to team up with GM to help them learn how to operate in the US.

GM offered Toyota a plant it had recently shut down in Fremont, laying off in the process some 5,700 UAW workers. It had been one of GM’s worst performing plants in quality, productivity, absenteeism, and labor conflict. Moreover, because GM-Fremont had been a unionized plant, hiring priority went to the laid-off workers. But Toyota was not in a strong bargaining position to reject the offer. So NUMMI inherited much the same workforce as had been at GM-Fremont: some 85% of the total initial staff. A rather inauspicious start.

But the results were astonishing. Within two years of startup, NUMMI had reached world-class levels of productivity. Among all small cars sold in the USA, their quality was second only to those coming from Toyota’s Takaoka plant. Worker turnover was low. Grievances were few. Absences ran under 3%, in contrast to GM-Fremont, where it had averaged about 20%. And NUMMI would sustain these performance results for many years to come. (The plant was shut in 2010, when GM pulled out of the joint venture as part of its bankruptcy, and Toyota decided the plant was too far from the growing supplier base in the mid-West.)

As you can imagine, I was eager to find out how they achieved these results. It was easy to imagine that GM workers, after two years being laid off, would be eager to have their jobs back, and would therefore start out with high levels of motivation. But if they had gone back to work in the old GM-Fremont plant with its old management and organization, any performance improvements would surely have dissipated within a matter of months. How did NUMMI manage to sustain this engagement and motivation?

My interviews pointed me to the Toyota production system—the integrated set of policies governing Toyota’s production operations. They are probably familiar to you: kanban, production leveling, kaizen, visual control, error proofing, teams, and standardized work. I was struck in particular by standardized work. At each workstation, I saw a chart diagramming the worker’s movements between the moving assembly line and the tools and parts nearby. It also listed the dozen or so discrete actions to be completed in the work cycle—typically 60 s—with their work times noted in seconds in one column and walk-time between

tasks noted in another column. The degree of regimentation here—the extent of standardization and formalization—was extraordinarily high.

Even more remarkable was that at NUMMI, this detailed formalization and standardization of worker's jobs was not done by staff engineers and forced onto reluctant workers: it was done by the workers themselves. They had been taught how to break down their jobs into tasks, time them, and test improvement possibilities. In practice, most of these improvements were in reducing walk time—ensuring that parts and tools were stationed to minimize wasteful (inefficient and tiring) walking. Repeating cycles of kaizen yielded rich harvests of productivity and quality improvements, and often improvements in safety and strain for workers, too.

By contrast, at GM-Fremont, the shop-floor had had no such system. Workers learned from their foreman or co-workers how to do the job. Methods engineers had abstract computer models of those workstation-level activities, but they were rarely used by foremen or workers. Practice was rather chaotic, with consequences for efficiency and quality. In the words of one GM-Fremont veteran:

“At GM-Fremont, we only ran our own little jobs. We'd work really fast to build up a stock cushion so we could take a break for a few minutes to smoke a cigarette or chat with a buddy. That kind of 'hurry up and wait' game made work really tiring. There was material and finished parts all over the damn place and half of it was defective anyway. Being consistently busy without being hassled like that and without being overworked takes a lot of the pain out of the job. You work harder at NUMMI, but I swear it, you go home at the end of the day feeling less tired—and feeling a hell of a lot better about yourself!”

How then should we characterize the form of organization I saw at NUMMI? This excerpt from another GM-Fremont veteran offers some clues:

“The GM system [of job design] relied on authority. People with rank — the managers — ruled regardless of their competence or the validity of what they were saying. It was basically a military hierarchy. At NUMMI, rank doesn't mean a damn thing — standardized work means that we all work out the objectively best way to do the job, and everyone does it that way. I might make some minor adjustments because of my height, for example, but I follow the procedure we've laid out because it makes sense. We're more like a special forces unit than the regular military hierarchy. Management has delegated responsibility to the people who do the work and that gives workers a sense of pride in their jobs.”

Many observers latched on to the “special forces” idea and assumed that NUMMI was an organic organization with a flat hierarchy. But not at all: for the main part, it was highly bureaucratic, at least according the standard measures prevalent in organization studies at the time, such as those

developed by the Aston group. True, NUMMI had reduced the number of job classifications in the contract (although without changing much the degree of specialization in the actual division of labor); there was cross-training within each team (usually just four people); jobs were “vertically enriched” by engagement in kaizen; and the methods engineering department was eliminated (as workers did that work on the shop-floor). But on the other hand, overall standardization, formalization, specialization, hierarchical differentiation, and staff/line differentiation all scored high. In sum, NUMMI was a very bureaucratic organization—just as OT predicts for large complex organizations engaged in mass production of standardized goods under efficiency pressure.

And yet, this was clearly a very different kind of bureaucracy from that portrayed in most OT discussions, where the organic-mechanistic contrast continues to shape our thinking. In an article with Bryan Borys, then a doctoral student, we called it “enabling bureaucracy” to contrast with the coercive and mechanistic kind that prevailed at GM-Fremont. We characterized the difference between the two kinds of bureaucracy using the parallels between social technologies (such as formal organization structure) and material technology (such as automation). Automation can be designed to overcome the recalcitrance and unreliability of workers assumed to be disengaged and careless, or it can be designed to support the intelligence and commitment of an engaged workforce. In thinking about what differentiated these two approaches, we were inspired by some of the ideas developed by John Seely Brown and others at the Palo Alto Research Center as they struggled to design Xerox's advanced, multifunction photocopiers so that they could be used by everyday people such as me.

Those “design for usability” guidelines suggested four criteria. Repair: make it easy to fix process breakdowns. Internal transparency: make it easy to understand the procedure for doing any specific task. Global transparency: make it easy to understand where that task fits into the bigger system. And flexibility: allow leeway in implementing the procedures when responding to contingencies. The parallel with material technology was fruitful, and colleagues in the management control literature continue to use it; but the more I thought about it, the less theoretically satisfying it appeared. What was the key antecedent to a coercive vs enabling form of bureaucracy? What differentiates these two “social orders”? This led me back to Weber and his concept of value-rationality. But it took me a while to get there.

From Gouldner to Weber

My first thought was that what differentiated GM from NUMMI was the degree of mutual trust between managers and workers. As do many others, I saw trust as a third

organizing principle, alongside market and hierarchy. And exploring trust got me interested in social capital – which led to a paper with Seok-Woo Kwon, at the time a doctoral student. In this framing, we had a way to think about enabling bureaucracy as a combination of hierarchy and trust.

But the more I thought about trust, the more it seemed like an unsatisfying answer to my question, simply because it came in such different “flavors.” Some kinds of trust generate solidarity and loyalty, but it’s a different kind of trust that generates innovation and openness to new ideas. Social capital too has very different effects, depending not only on the graph-structure of the ties, but also on their content.

I examined the various typologies of trust our OB and OMT colleagues have developed, but none of them seemed to quite capture the difference between organizations characterized by enabling versus coercive forms of bureaucracy. Eventually I came to shift the frame from trust and social capital to community.

Why community? Before answering that, I should note that community has long fallen out of favor as a focal concept in sociology, having grown to encompass too many dimensions and forms. This is not an easy literature to engage with nor contribute to. Nevertheless, my critique of Labor Process Theory had brought to the fore Marx’s concept of the collective worker, and that collective worker can be understood as a workplace community. So, my question could perhaps usefully be reframed as: what kind of workplace community supports enabling bureaucracy?

My answer evolved in large part through another round of field work in another enabling bureaucracy – Computer Sciences Corp., one of the largest software services providers. Some CSC divisions had adopted a software development process that looked much like the Toyota Production System. It was called the Capability Maturity Model (CMM), and its proponents argued for adopting Toyota’s standardization, formalization, and kaizen in software development. They argued that this is the only way software development could escape the state of permanent crisis it was in (and still is), where an extraordinary proportion of big projects run very late and far over budget, or are simply abandoned.

The CMM was developed at Carnegie Mellon, initially supported by the Department of Defense, and it quickly diffused to the commercial sector. It established criteria by which software development organizations (and later, other functions) could assess their level of “maturity” from (1) ad hoc, to (2) repeatable, (3) defined, (4) managed, and (5) optimizing. Government contractors were warned they would need to be at Level 3 to qualify; big corporate customers were asking their contractors about it; contractors were eager to certify their maturity level. All this quickly provoked a backlash from critics who were sure that this bureaucratization would throttle the creativity of software development.

There were very few CMM Level 5 organizations at the time of my study, but CSC had two of them, and I studied those two alongside two other units that were still at Level 3 but working towards 4 and 5. The Level 5 units were amazing places: they developing extremely complex and innovative systems, in teams of several hundred people working over two or three or more years, and resulting in “six sigma” quality code running things like the Space Shuttle. Under the CMM, development was indeed subject to high levels of standardization and formalization. In the words of one developer I interviewed:

“I can write the code in two hours, but then I have to spend two days documenting it. It can be very frustrating. We have to document check-in and check-out, a detailed design plan, a development plan. We have to print out all the differences between the old and the new code. There’s documentation for inspection and certification. There’s an internal software delivery form. A test plan. And all these need to be signed... I used to be an independent developer for about three years. I never even created a flow-chart of my work! The only documentation I needed was a ‘to do’ list. So I had to change a lot of habits when I got here.”

Listening to developers talk about what it was like to work in such a structured work environment, it seemed that it was their interest in the ultimate result that had brought them around to embracing this discipline – seeing it not as the discipline of a prison nor of Charlie Chaplin’s *Modern Times* factory, but as the discipline of a symphony orchestra. Consider this interview excerpt:

“Developers want above all to deliver a great product, and the process helps us do that. What I’ve learned coming here is the value of a well thought-out process, rigorously implemented, and continuously improved. It will really improve the quality of the product. In this business, you’ve got to be exact, and the process ensures that we are. You have to get out of hacker mode!”

I reflected back on my NUMMI interviews, and found a similar theme there:

“We want to be proud of our cars – we don’t need to hear any crap about how a neighbor bought one of our cars that was built on Friday or Monday and how it’s falling apart. At NUMMI, we finally found a management whose goals were compatible with ours – build a quality product and provide stable employment. The U.S. companies would never say that. They only have one goal – stockholder value. As long as they think that way, industrial relations have to be very adversarial.”

It struck me that what was distinctive about these organizations, and what made them enabling rather than coercive bureaucracies, was that managers and employees shared a purpose—making the best product they could. True, this shared purpose co-existed with separate, antagonistic

purposes. True too, the latter would often enough corrode the former. Nevertheless, this shared purpose was sustained enough to be salient: how did their organizational form support that? Several features stood out.

First, the formalization and standardization process at CSC was, as at NUMMI, a highly participative one. Suggestions for improvement were constantly elicited; there was a software process improvement team composed of developers and staff experts; and developers were regularly involved in a “tailoring” cycle—the cycle of work at the outset of project during which the standardized process for development is adapted to the specific needs of the current project:

“People have to be a part of defining the process. We always say that ‘People support what they help create.’ That’s why the Tailoring Cycle is so important. As a project manager, you’re too far away from the technical work to define the S&Ps [Standards and Processes] yourself, so you have to involve the experts. ... It’s only by involving them that you can be confident you have good S&Ps that have credibility in the eyes of their peers.”

Second, the authority hierarchy was much more participative too:

“Before I came to CSC, I worked for one of the most autocratic managers you can find. It was always, ‘And I want that report on my desk by 5 p.m. today,’ with no explanation or rationale. Compared to that kind of situation, an organization with a more mature process [such as here] leaves a lot less room for a manager to arbitrarily dictate how you should work and when work is due. And a more mature process also means that there are more formal review points, so any arbitrary autocratic behavior by a manager will become visible pretty quickly.”

And third, these norms were enforced:

“We did have a pretty autocratic manager a while back... He had very strong technical skills and would often make decisions without consulting his staff. We heard a lot of complaints, and we saw some turnover too. But his technical skills made him very valuable to us, so we kept him on even after he offered to resign. We tried to get him to change his style, but he didn’t, and eventually, after maybe two years of this, we just had to let him go. It was difficult. And he took a few loyal staff people with him too.”

Weber gives us a way to understand what was distinctive here—the centrality of “value-rationality.” Value-rationality is one of the four basic types of “social action” that Weber introduces early in *Economy and Society*. It will be useful to review them rapidly in turn.

Traditionalistic action is characterized by its focus on means—a variable mix of habit and respect for ritual. Affectual action is characterized by its focus on ends—the

satisfaction of the demands of an emotional state such as passion or anger. Neither traditionalistic nor affectual action are guided by rational deliberation.

Instrumentally rational action is rationally guided, but towards ends that are not themselves rationally deliberated, but instead given, imposed, or taken-for-granted. This kind of action is motivated by its anticipated ability to achieve such ends.

Value-rational action is consciously directed toward an “ultimate” value—toward something we take as good in itself, not for its instrumental value as a means to some other end. Weber gives the example of honor. Value-rational action brings that ultimate value into the span of rational deliberation in deciding on a course of action. Charles Heckscher and I argue that we can generalize beyond ethical goals such as honor, to any action involving rational deliberation encompassing both an ultimate goal, its meaning in the current context, and the best way to advance it in that context.

To illustrate, consider the surgeon and anesthesiologist who operated on my shoulder a few weeks ago to free a nerve from an impinging cyst. They each had standardized protocols for the procedure, but their decision-making was guided by concern for my health, not just by whether they were following the procedure. So, when the surgeon discovered during the procedure that there some loose cartilage in the nearby shoulder joint, he improvised to address that problem too, and the anesthesiologist adapted accordingly to the longer surgery. The ultimate ends—my health, not conformance to procedure—were the “ends-in-view” guiding their action (using John Dewey’s concept). That’s the core of value-rational action as I understand it.

What was distinctive about NUMMI and CSC (and other enabling bureaucracies that I studied) was that workers shared a purpose with the enterprise—making the highest quality, lowest cost, small car, or making world-class code that supported critical missions. And that purpose guided much of their everyday social action as they consciously made decisions about how to handle uncertain tasks—contingencies in daily work and kaizen at NUMMI, or developing software and improving the development process at CSC.

What type of organization supports such value-rationality? Weber gives us the starting point. Each of Weber’s four types of social action supports a different type of organizational form, functioning as the canonical, legitimate form of action. Bureaucracy and markets are based on instrumentally rational action; clans on traditionalistic; charismatic organizations on affectual; and collegial organizations on value-rational. So, where in this typology is an organization such as NUMMI or CSC? Starting from Aston’s operationalization and its focus on the nature of the formal organization, they were clearly bureaucratic—enabling bureaucracies, indeed. However, in Weber, bureaucracy is not just a matter of a distinctive formal structure, but also a matter of

the norms and values, and from that vantage point, it is hard to see them as bureaucracies: value-rational action was too salient. (Working with Pedro Monteiro (at Copenhagen Business School) on a review paper has given me the opportunity to tease out these different understandings of bureaucracy.)

If they were not bureaucracies, and given that they were clearly neither clans nor charismatic, should we then think of NUMMI and CSC as collegial organizations? In work I've been doing with Charles for a decade now, we argue in the negative. Under collegiality, we would expect to find relatively small organically organized groups of similarly socialized peers governed by consensus and egalitarian norms. But NUMMI and CSC were not organic organizations governed by collegial consensus: they were large, complex organizations, governed by a hierarchy of authority that managed complex interdependencies across multiple specialized functional groups.

We are thus led to an interesting theoretical puzzle. On the one hand, Weber's conclusion was stark: any value-rational order (especially under competitive pressure) will evolve toward instrumental-rational bureaucracy as it grows in scale and complexity. But on the other, it seemed that organizations like NUMMI and CSC had somehow managed, in part at least, to preserve value-rationality at scale and complexity. To understand how, it will help first to identify more specifically the challenges to be overcome.

The challenges are well-known to management scholars (and to anyone working in a complex organization). We can group them into four dimensions. (Charles convinced me that Parsons' AGIL scheme is useful in differentiating them.) To take them in turn:

In the values dimension, growth means new employees, who bring more heterogeneous backgrounds; and growth leads to the differentiation of organizational subunits, which in turn leads to the emergence of local subcultures and values. The challenge here is to avoid fragmentation of purpose.

In the norms dimension, growth means the organization needs more formalized means for coordinating its increasingly differentiated and dispersed activities. This formalization creates a challenge: how to avoid goal displacement, where compliance with procedures trumps commitment to purpose.

In the authority dimension, the need for timely decisions conflicts with the escalating difficulty of managing by consensus across a growing number of organizational subunits: this leads to centralization, which risks disempowering lower-level initiative and alienating workers.

And in the capabilities dimension, growth means further and deeper specialization, and the corresponding need to differentiate rewards. The challenge here avoiding "silo" effects, where the specialization of mindsets and incentives impedes integrative problem-solving.

As organizations grow and encounter these four challenges, value-rationality typically gives way to instrumental-rationality, and collegiality gives way to bureaucracy. Against this backdrop we can ask: what did organizations like NUMMI and CSC do to overcome these challenges?

This is, first, an empirical issue: after all, in the century that separates us from Weber, many smart managers have tried to overcome these challenges. And the result is an accumulation of management techniques that we all recognize. Reading magazines such as *Harvard Business Review*, it is easy to identify a range of management techniques that respond to each of these challenges. And from each of the four families of techniques, we can extract a core underlying principle, as shown in Table 1.

Yes, each of these four principles (in the last column) sounds oxymoronic or paradoxical. That is because of the influence of the capitalist valorization process in shaping work organization. Under that pressure, participation is structurally limited by design; centralization is used to preserve management control; specialization is used to create more cheaply filled and more easily controlled jobs; standardization is used to corral unreliable workers; and the idea of a shared purpose governing the organization is undermined by the divergence of interests between workers and employers.

On the other hand, however, the organization of the cooperative labor process evolves too, as organizations grow in complexity and sophistication. Management models emerge that aim to capture the business benefits of collaboration. To the extent that an organization can ease the pressure of valorization and profitability on the organization of work—to the extent it increases the weight accorded engagement and innovation in shaping that organization—the two terms of the paradox can be synthesized. We see this shift occasionally in industry, most notably in firms that adopt a more enlightened, "high-road" approach to personnel management, often under union pressure (such as at NUMMI) and sometimes under pressure to engage and retain a more highly-skilled and mobile workforce (such as at CSC).

How should we characterize this emergent organizational form? Charles and I argue that together, the four clusters of techniques and their underlying principles create a novel form—value-rational, but at scale and complexity. We call it collaborative, as distinct from collegial.

The collaborative form of the labor process is hard to discern, because it coexists in a relation of real contradiction with the fundamentally exploitative, hierarchical form of the capitalist valorization process. Nevertheless, and insofar as firms manage to stabilize those collaborative principles even if only precariously, we have a model of organization that promises to overcome some of the fundamental performance tradeoffs facing organizations. In particular, it can help overcome the tradeoff between what Jim March called exploitation and exploration. NUMMI and CSC both score very high on the

Table I. The Emergent Value-Rational, Collaborative Form (Adapted from Adler and Heckscher (2018)).

	Challenges	Techniques for scaling value-rationality	Solution principles
Values	Fragmentation	<ul style="list-style-type: none"> Solutions-oriented business models, Quality Function Deployment, BSC, Hoshin Kanri Culture work, “new compact” dialogue, values jams 	Institutionalized ethic of contribution → Interdependent individualism
Norms	Goal displacement	<ul style="list-style-type: none"> Protocols for brainstorming, participatory meeting management, decision-making with multiple stakeholders Kaizen, Process mapping 	Interactive process management → Enabling standardization
Authority	Centralization	<ul style="list-style-type: none"> Participative strategy process, multi-stakeholder dialogue Distributed leadership Matrix structures 	Contribution-based authority → Participative centralization
Capabilities	Specialization silos	<ul style="list-style-type: none"> Assessment and Development planning tools 360 reviews and Contribution-based rewards T-shaped skills development 	Contribution-oriented capabilities → Integrative specialization

both exploitation/efficiency/control dimension and the exploration/flexibility/innovation dimension. The literature describes several ways firms can achieve such ambidexterity: Charles and I have argued that one powerful lever is the salience of shared purpose across the organization’s differentiated functional subunits and hierarchical layers.

From Weber to Schumpeter

Notwithstanding these performance advantages, this collaborative form of organization is fragile and precarious under capitalist conditions, for reasons already discussed. On the one hand, valorization pressure stimulates the emergence of collaboration as firms seek the benefits of shared purpose

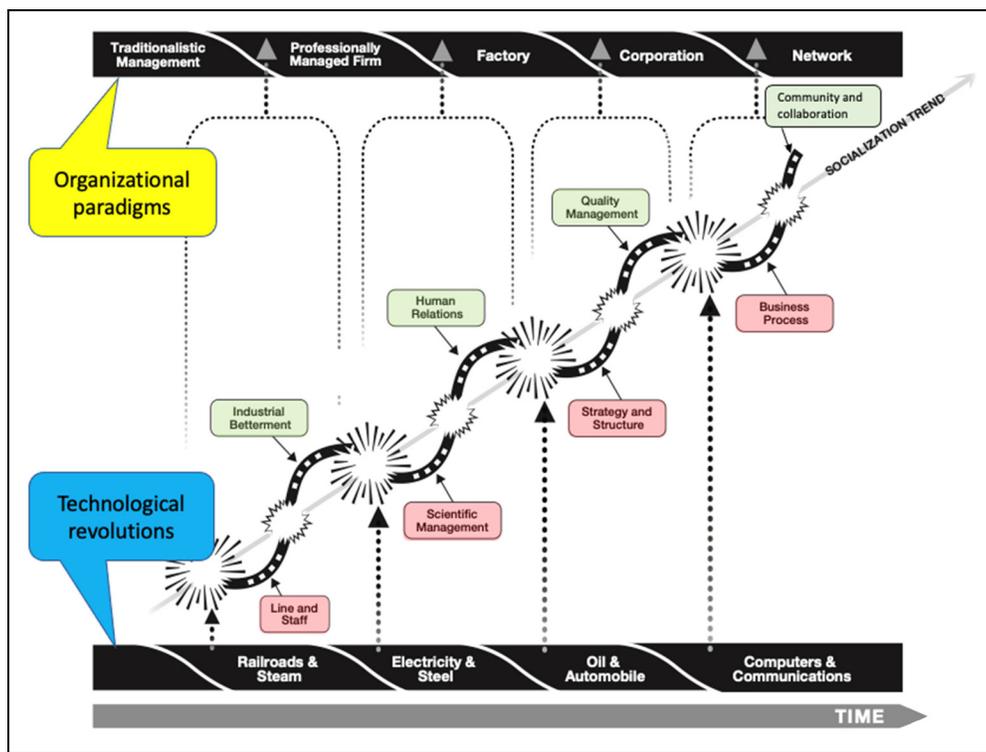


Figure I. The form of community (expressed in management models) evolves over time with schumpeterian technological revolutions (adapted from Bodrožić and Adler (2018)).

in greater discretionary effort and innovation. But on the other, that same pressure constantly risks undermining collaboration, by pressuring managers to lay off workers to defend firm profits, make decisions seen as irrational by employees, narrow jobs, limit pay, and intensify control.

Given the conflicting forces shaping its emergence, it is not surprising that the development of collaborative workplace community follows a zigzag path. A question then naturally arises: how does this form of organization fit in the longer history of the evolution of the labor process? In work with Zlatko Bodrožić, we have been addressing that question, using Schumpeter's theory of technological revolutions, and in particular the extension of those ideas by Chris Freeman and Carlota Perez. Let me explain how.

Freeman and Perez and their colleagues have identified five major waves of Schumpeterian technological revolutions: the original "industrial revolution" based on machinery and water-power, followed by the steam-power-and-railway revolution, then by the steel-and-electricity, automobile-and-oil, and most recently computers-and-telecommunications revolution. Working with Zlatko, we found that the main management models emerged in two successive cycles within each revolution, as depicted in Figure 1

We argued that we would understand better each of these models and their succession over time if we understood how they were responding to major technological revolutions (on the bottom row of Figure 1). These revolutions obsoleted prevailing paradigms of management (the top row) and their implied forms of collective-worker community. We argued that new organizational paradigms—better equipped to capitalize on the opportunities afforded by the new technologies—emerged in each revolution, and that they emerged in two successive cycles, each of which leading to the emergence of a new management model. The first cycle was a paradigm-revolutionizing one, which aimed to seize the new profit opportunities opened up by the new technology, and to overcome the impediments created by the inherited organizational paradigm. This was followed by a second, paradigm-balancing cycle, which aimed re-establish "internal fit" by reasserting shared purpose. Barley and Kunda has earlier identified a similar pendulum motion in the succession of management models, and Schumpeter offered a way to understand not only that pendulum but also the different content of the models across successive revolutions, and the way the contradictions between a revolutionizing and balancing model were synthesized in a new paradigm.

Over this longer time-horizon we can see the progressive side of capitalist development in the succession of models representing increasingly socialized forms of production organization. Indeed, looking at management models as they evolved from revolution to revolution, we see both a progressive widening of the span of conscious, effective control (the focus on the primary cycles) and progressively deepening of workers' subjective engagement (the focus on

the secondary cycles). (As Marx said, "History advances by its bad side.") Table 2 shows how.

Viewed from this long historical perspective, it seems like the vector of development points towards something like the value-rational collaborative form of community, even though capitalism's relentless drive for profits constrains and distorts this development toward collaboration.

That conclusion is the starting point for my most recent cycle of reflection, focused on the question: what form of society would allow value-rationality and collaboration to prevail as the dominant organizing principle?

From Schumpeter to Polanyi and back to Marx

My thinking on this question has been shaped by another organization case study, focused here on the macro-organization of our economy and its ability to meet the challenges of climate change. There is no need to rehearse here the projections for accelerating climate change. What is less widely recognized is the scale and multiplicity of the challenges poses to us. Within a few short years, we need not only to phase out use of fossil fuels as the source of primary energy, but also to transform radically a vast range of industries that rely on fossil fuels for energy or raw materials. This includes transportation (automobile, trucking, shipping, airlines); buildings (construction, demolition waste, heating and cooling); and many industrial products (chemicals, cement, etc.). We need to transform, too, our land use (deforestation, agriculture, livestock, waste). Further, we need to rebuild our physical infrastructure for resilience (transportation, water, power, sewage, sea walls, rivers, etc.) And we will need to provide social support to ensure a "just transition"—income support, retraining, regional development, and remedying gender and racial inequities.

How can our economy be organized to meet this multidimensional challenge? My thinking on this has been fueled by my engagement with Polanyi. Polanyi's book, *The Great Transformation*, gives us a powerful set of lenses through which to characterize the origins of this crisis, namely the "disembedded" functioning of the market economy in capitalist society. He writes in terms that still resonate as a forecast of where the prevailing, neoliberal policy regime is leading us:

"The idea of a self-adjusting market implied a stark utopia. Such an institution could not exist for any length of time without annihilating the human and natural substance of society; it would have physically destroyed man and transformed his surrounding into a wilderness."

But what would successful "reembedding" of the economy look like? As scholars of management, we have a

Table 2. The Socialization of Production Through Schumpeterian Technological Revolutions and Management Models.

Technological revolution	Management models	Primary cycle: seeking external fit and widening span of conscious control	Secondary cycle: seeking internal fit and deepening engagement of workers
Steam and railways	Line and Staff	Establishing rational hierarchy and support functions	
	Industrial Betterment		Leisure activities for workers
Electricity and steel	Scientific Management	Establishing factory-wide control	
	Human Relations		Personalized supervision
Oil and automobiles	Strategy-and-Structure	Coordinating multiple business units targeting different markets	
	Quality Management		Team engagement in improvement activities
Computers and telecommunications	Business Process	Coordinating across boundaries within and beyond the firm	
	Community-and-Collaboration		Collaborative engagement across boundaries

duty to point out the absurdity of imagining that we can accomplish this reembedding and avert climate catastrophe by relying on business leaders to behave more responsibly, encouraged by consumers, employees, and investors who have themselves become more socially and environmentally responsible. Of course, firms have some room for philanthropy; and yes, doing good can sometimes be good business; but the space of “win-win” options clearly does not extend to the solutions we need for the really big challenges posed by a dangerous global externality such as climate change.

Should, then, the response be led by government? Many people have given up hope that government can solve this crisis. But surely we must ask: why has government action been so weak for so long in the face of so urgent a need? I think we are led back to Marxist arguments about the structural power of business. In a capitalist society, government is constrained in its ability to affect economic behavior because the prosperity of the country depends on the continued profitability of the private sector. To address climate change seriously would dramatically reduce business profits and lead to job losses and collapsing political legitimacy. It therefore seems clear that even strongly regulated capitalism cannot reembed the economy effectively enough to deal with the climate crisis.

I conclude that we need to change not only government policy but the organization of our political-economy: we need to reembed the economy in society, and to do that, we need to expand the scope of democracy from the political to the economic sphere. We need an organization of society in which we decide, strategically and democratically, how best to our society’s economic resources to

reach our shared, democratically-determined goals. That in turn requires a much more powerful and simultaneously more democratic state—astate that democratically sets the direction of production and investment, displacing market forces and their attendant failures in the resource allocation process.

What would that democratic, transformational state look like? My working hypothesis is that any satisfactory system would have to embody the four principles of value-rational collaboration I described above at the organization level, now scaled up to the wider economy.

To ensure we can manage our resources strategically and democratically, a policy of participative centralization seems essential. Participative, because democracy demands that decision-making involve all impacted parties. And centralization, because, in light of that democratic principle, decisions with nation-wide ramifications should be made at a national level. Centralization need not be coercive: it can support rather than weaken democracy. We will need forums in which we can define collectively strategic goals for cities, enterprises, industries, regions, and the nation, through participative, iterative, deliberative processes. The general principle should be to decentralize where possible; centralize where necessary; and insure the democratic quality of decision-making at every level.

Government would invest in innovation, vastly expanding the scope of agencies like the National Science Foundation and National Institutes of Health, investing in centralized, regional, industry, and local R&D, and in building bridges among them. Specialization need not create silos: enterprises can be encouraged to collaborate in innovation programs; government can invest in developing T-shaped skills in the

workforce; and active labor market policies can support worker mobility from declining industries and occupations to growing ones.

To ensure efficiency, public policy can support enabling standardization initiatives. Standardization of best-practice process and optimal component designs promises enormous potential benefits on economic, social, and environmental dimensions. Standardization need not be stifling: we can establish programs that seek out attractive opportunities for setting standards for products and processes across enterprises and industries, and we can involve workers and citizens in developing and refining those standards—a national kaizen program.

To ensure motivation—in a context where the whip of unemployment is hopefully cast aside—public policy can support interdependent individualism. A sense of collective identity need not negate individual expression: we can incentivize both individualistic divergent thinking and collectivistic commitments. We can maintain the salience of shared purposes—here in the form of strategic goals for nation, region, and industry—in local decision-making.

The state will need to vastly expand its scope and scale, but it will also need to change qualitatively in form. Where in a capitalist society the state stands outside and above civil society, here it will be subordinate to and more integrated with civil society. Civil society too will need to change in form, so that democracy becomes a way of life, not an episodic spectacle.

In my current work, I am trying to explore such issues and engage thinkers who have studied the challenges large-scale, democratically structured, public-policy formulation and administration. Some see this new organization of our political-economy taking the form of a mixed economy, with an expanded public sector, armed with stronger regulatory

powers, co-existing with a substantial private sector. Along with others, I doubt that such a configuration is stable, and think we will need to go further, to a strong program of socialization of the control and ownership of our productive resources—democratic socialism—as I explained in my recent book (Adler, 2019). Others again argue for solutions based on decentralization. I hope that, alongside other OT scholars, I can continue to contribute to that crucial debate.

Note

1. Marx argued that the cumulative advance of technology (the “forces of production”) stood in a relation of real contradiction with the persistence of the capitalist, private-enterprise, ownership structure (“relations of production”). On the one hand, the relations stimulate the advance of the forces; but on the other hand, that advance renders the forces increasingly socialized, and as that socialization progresses, the assertion of individual property rights over society’s productive resources becomes increasingly dysfunctional. We have a perfect recent example in Moderna refusing to relinquish intellectual property rights over its Covid vaccine, even though that vaccine had been developed mainly with federal funding.

References

- Adler P. S. (2019). *The 99 Percent Economy: How Democratic Socialism can Overcome the Crises of Capitalism*. Oxford University Press.
- Adler P. S., & Heckscher C. (2018). Collaboration as an organization design for shared purpose. *Research in the Sociology of Organizations*, 57, 81–111. <https://doi.org/10.1108/S0733-558X20180000057004>
- Bodrožić Z., & Adler P. S. (2018). The evolution of management models: A neo-Schumpeterian theory. *Administrative Science Quarterly*, 63(1), 85–129. <https://doi.org/10.1177/0001839217704811>