Ambidexterity as a solution to Abernathy's productivity dilemma: A Marxist view

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Recent research has argued that the productivity dilemma described by Abernathy – the trade-off between efficiency and innovation, between exploitation and exploration -- can be overcome by organizational ambidexterity. There is an emerging consensus that while such ambidexterity is hard to achieve, it is not, *pace* Abernathy, impossible. Toyota' provides an existence proof that such ambidexterity is indeed feasible (e.g. Brunner et al. 2008).

The present note challenges the established understanding of why such ambidexterity is hard to achieve. I think that this understanding reflects the combination of (1) a **correct** assumption that efficiency requires a bureaucratically structured organization, and (2) a **widely accepted but incorrect** assumption that bureaucracy is antithetical to innovation.

In a series of studies, I have built on Gouldner (1954; 1955) to argue that bureaucracy can be compatible with innovation so long as bureaucracy takes an "enabling" form – so long as it is designed and used as a tool rather than as a weapon or as a ceremonial mask (see Adler, 1993; 1999; 2001; Adler and Borys, 1993; Adler, Goldoftas, and Levine, 1999). The productivity dilemma view assumes a one-dimensional spectrum of organization design alternatives which contrasts organic/innovation-oriented and bureaucratic-mechanistic/efficiency-oriented structures; I argue that we are better served by a model with two independent dimensions -- the degree of formal structuring (low versus high bureaucratization) and the type of social structure (low versus high trust). Where tasks are more routine, then, to be sure, we need relatively more bureaucratic structuring; but even where the key tasks are much less routine, such as is the case where the main goal is exploration and radical innovation, there is still much that bureaucratic structuring can contribute to both efficiency and creative effectiveness – so long as bureaucracy takes this enabling form based on high levels of trust.

This formulation, however, is inadequate: it does not capture the deep ambivalence that field researchers have repeatedly documented when they ask workers about their experience of bureaucracy (e.g. Adler 1993). To take a specific example at Toyota: the kaizen process for involving workers in the continuous reduction of non-productive time is a powerful learning meta-routine, and workers appreciate – and typically reciprocate -- the trust invested in them by managers who mobilize workers in this process; but that trust is easily undermined when workers on the assembly line find that the kaizen process has led to intensified work as non-work time is progressively eliminated. Taiichi Ohno -- a key figure in the development of the Toyota Production System – had a nickname, Taiichi "Oh no!" because whenever he visited a plant, workers would stiffen in anticipation of yet another round of workforce reductions, yet another turn of the screw in the never-

ending intensification of work that is such a central feature of the Toyota Production System (Wickens, 1993).

Perhaps, therefore, it is not surprising that serious field research continues to debate whether "lean production" is in practice enabling and empowering or functions as a coercive means of domination and exploitation[1] (e.g. Schouteten and Benders 2004). I propose that we take this continued debate as a replicated finding: some organizations may use bureaucracy one way more than another for a given period of time; but the evidence, taken as a whole, tells us that bureaucracy as essentially (actually or potentially) two-sided, both enabling and coercive. If so, we need a way to theorize this ambiguity.

In looking for a better theory, my recent work follows Gouldner back to Marx. My reading of Marx (Adler 2007) leads me to suggest that if bureaucracy is by nature both enabling and coercive, it is because bureaucracy is simultaneously a technology for coordination – thus part of what Marx calls the "forces of production" -- and a social relation of exploitation and domination – and thus part of what Marx calls the "relations of production."[2] These two aspects of bureaucracy coexist in a form that Marx calls a "real contradiction."[3]

The real contradiction between the forces and relations of production pulls bureaucracy simultaneously in opposite directions, creating a tension that is felt every day by managers and workers in the real world of work:

(1) The forces of production tend to develop towards ever-higher levels of effectiveness, stimulated by the capitalist relations of production. Capitalist competition between firms and exploitation/domination within firms drive industry to incessant innovation of both radical and incremental kinds. Insofar as

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[1] Note that here I am using "exploitation" in the Marxian sense (appropriation of value) rather than the Marchian sense referred to earlier. I see no connection between the two; but both usages are so widespread that we must simply accept the ambiguity. To avoid confusion, I will use the couple exploitation/domination when referring to the Marxian meaning.

[2] In Marx, the "forces of production" are the material means of production, the knowledge that is embedded in them, and the knowledge in the hands and heads of workers who use these means of production. The "relations of production" are the relations of ownership and control over these forces: capitalist "relations of production" are based on private property over the means of production, and thus competition between firms and exploitation of workers within firms. In this schema, "work organization" is part of both the forces and the relations of production. Note that this interpretation of bureaucracy is close to Weber's too, although Weber would replace "relations of production" with a broader construct of "authority relations."

[3] Marx gets the idea of a "real contradiction" from Hegel. We usually think of contradiction as a property of logic propositions. Hegel saw contradiction as a feature of the real world, not just of our assertions about it. This is a rather fruitful way of thinking about the complexity and dynamism of social structures, although the risks of obscurantism are considerable.

bureaucracy is a tool – a technology for coordinating a complex division of labor -- it figures as part of the forces of production, and we should expect bureaucracy to develop along with these other forces of production. Bureaucratic systems in the form of Taylorism represented a huge advance over the prior craft and initiative-and-incentive systems: bureaucracy here focused primarily on routine manufacturing and clerical tasks. Developments over the subsequent century, including those pioneered at Toyota, introduced bureaucratic systems not only for kaizen in these routine tasks, but also for the management of improvement and innovation projects, R&D organizations, highly flexible operations, and open innovation systems.

(2) But capitalist relations of production also limit and distort the development of the forces of production. Profit pressures sometimes stimulate the development of new material and organizational technologies, and they sometimes encourage the intra- and inter-firm cooperation needed to support this development; but these profit pressures are brutal, and they just as often undermine this cooperation by turning the tool of enabling bureaucracy into a coercive weapon. Community and trust between workers and managers and between firms are required to ensure that bureaucracy is enabling; but such community and trust are very precarious given the conflictuality inherent in the intrafirm employment relation and given the rivalry and unpredictability inherent in the interfirm relations of competition. Insofar as bureaucracy is also means of domination and exploitation, **lean** production under profit pressure can easily degenerate into **mean** production (Harrison 1994). The enabling quality of lean production is thus always a precarious and ambiguous accomplishment.

The implications of this Marxist approach to ambidexterity are that (a) we do indeed have reason to assume that achieving ambidexterity is difficult, but (b) this is not because the more routine part of the task-set requires bureaucracy – which it does -- and not because bureaucracy stifles innovation – which it doesn't, necessarily -- but because the capitalist nature of the firm constantly risks undermining the cooperation and trust required to ensure that bureaucracy functions as a tool rather than as a weapon or as mask.

Ambidexterity is a capability that requires sophisticated, enabling-oriented use of bureaucratic structures. Toyota has been particularly effective in refining this organizational technology. But the market imposes its brutal discipline on Toyota as on other firms, and as an instrument of private profit accumulation, Toyota plants are always at risk of undermining ambidexterity by using bureaucracy in coercive ways.

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