

# LEADERSHIP AND PROJECT MANAGEMENT: TIME FOR A SHIFT FROM FAYOL TO FLORES

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## Abstract

Henri Fayol's definition of management establishes the "common sense" of current project management practice. That common sense is challenged by a new definition of work and management put forward by Fernando Flores. This paper explores both definitions of management and their implications for leadership. When management of work in a lean project delivery is understood as "making and keeping commitments", the nature and focus of leadership and common sense changes. Producing trust is the essential role of leaders.

## KEY WORDS

Leadership, project management and lean construction.

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## **INTRODUCTION**

Projects are conceived and completed by people. People are at the beginning, end, and center of projects. They apply both implicit tacit knowledge and established theories drawn from science and practical observation to perform both everyday actions and to innovate and solve technical problems. But we still seem to lack a coherent theoretical foundation that explains how leadership engages people fully and effectively. Too often we hear, “If only the client knew what he really wanted and if all of the participants were motivated and properly trained.” It often seems that people are THE problem rather than the solution.

In this paper we offer a new approach to leadership in the project setting, one that in its theory and practice connects directly to the lean revolution in construction. Understanding this new form of leadership -- how and why it works -- begins with reconsidering the nature of work in projects and its management in lean organizations.

## **BACKGROUND**

Projects in Lean Construction are conceived as temporary production systems. This conception has opened new and rich lines of investigation. New opportunities to improve are revealed as the waste invisible in traditional practice becomes apparent. The difference between lean and current practice is so profound that adopting lean requires and produces a new paradigm. “Paradigm” is used here as “common sense”. This definition aligns accepted formal definitions such as, “in the philosophy of science, a very general conception of the nature of scientific endeavor within which a given enquiry is undertaken” (Harper Collins 2000). Thomas Kuhn says that study of a paradigm prepares students for membership in a particular community of practice (Kuhn 1962). In short, a paradigm is the set of ideas that form a worldview used to interpret reality...a common sense.

Ballard made a compelling case that Lean Construction is a new paradigm and explored the anomalies apparent in current practice that opened the door to the new perspective (Ballard & Howell 2003). In parallel, Koskela has criticized the foundations of project management and called for reform (Koskela & Howell 2002). The authors of this paper proposed that the *linguistic action perspective (LAP)* provides an additional foundation to the theory of lean construction (Macomber and Howell 2003).

In that paper, we embraced Flores’ definition of work in organizations, “making and keeping commitments” and proposed the *LAP* provides a way to connect lean production management of physical work with the way people use language to coordinate actions, make assessments, make sense, produce trust, and shape their mood. We did not discuss the nature of leadership and the specific skills required by Flores’ definition of management.

## **FROM FAYOL TO FLORES: THE ESSENTIAL SHIFT**

The relationship between the leader and the lead defines the nature, focus, and practice of leadership. In traditional project management those in authority foresee the future, rely on centralized planning and initiation of work, and “thermostatic” control by tracking against standards. Leadership is required to motivate the workers to accomplish required tasks within established limits and to overcome problems as they arise. Henri Fayol, a French

mining engineer (<http://www.onepine.info/fayol.html>) codified this “command and control” model around the turn of the last century. He proposed that successful management required 5 basic functions:

1. To forecast and plan the future and to prepare plans of action
2. To organize the structure, people and material
3. To command activity
4. To coordinate, unify and harmonize effort
5. To control to assure policies and plans were followed

And he identified 14 principles to be applied:

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|--|--------------------------------------|
| 1. Specialization - division of labor    | 7. Remuneration                      |
| 2. Authority with responsibility         | 8. Centralization                    |
| 3. Discipline                            | 9. Chain / line of authority         |
| 4. Unity of command                      | 10. Order                            |
| 5. Unity of direction                    | 11. Equity                           |
| 6. Subordination of Individual Interests | 12. Lifetime jobs (for good workers) |
|  | 13. Initiative                       |
|  | 14. Esprit de corps                  |

These principles establish the nature and role of leadership. The nature of work, the essential “doing” can be implied from the focus on labor and material; work is the “physical” work, a materiel function, needed to realize the future established in the plan. The physical work is directed, however benevolently from above. In return, equity (understood as fairness and not ownership) and security are offered in return for subordination of individual interests. Leadership is mostly a matter of motivating workers. And this motivation is understood to arise from externally applied forces, i.e., workers are motivated by incentives or punishment<sup>5</sup>. We claim that Fayol’s model describes a foundation of the operating paradigm of project management and leadership and the nature of work itself.

That model gained traction with Henry Ford's bargain with workers (Ford 1926). For \$5.00/day, about 60% more than others were paid for performing comparable work with comparable skills and training, workers gladly set aside their interests for the interests of Ford. Thus began nearly 100 years of subservience with each worker knowing that there is someone ready to replace him for less money.

Flores proposed a different definition of management built on the idea that work in organizations is making and keeping commitments:

*Management is that process of openness, listening, and eliciting commitments, which includes concern for the articulation and activation of the network of commitments, primarily produced through promises and requests, allowing for the autonomy of the productive unit (Flores, 1982).*

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<sup>5</sup> The Fayol definition of management does not entirely or necessarily prevent some aspects of lean from being applied. In practice, it has led to local optimization and hinders creativity in the face of an unfolding world.

## DISCUSSION

Most people immediately agree when the work of their organizations is described as making and keeping commitments. Some realize that this formulation contradicts the foundation of current practice<sup>6</sup>. In Flores' formulation, management is open to being influenced by the world. Motivation is no longer external; rather the willingness to do work is understood to arise from the individual's promise to carry it out. "Respecting the autonomy of the productive unit," means that each person or group is responsible to look after their own interests and must therefore have the right to say "no."

Stopping the line, saying "no" rather than releasing defective work, is at the heart of the Toyota Production System (TPS). Each worker or team has promised to deliver products that meet specific criteria within a certain response time. Spear and Bowen identified this as the second operating rule of the TPS, "Every customer supplier connection must be direct, and there must be an unambiguous yes-or-no way to send requests and receive responses" (Spear & Bowen 1999). Making and keeping promises is one key to managing production systems and it is essential to producing trust.

When people cannot say no, they are stripped of their dignity, they cannot make promises, and they cannot be trusted. Of course, command and control leaders can get a lot done by following Fayol's principles but they are always at risk. Subordinates may find their interests are better served in other ways, be reluctant to reveal problems that may lead to reduced compensation, or lose confidence in the leader's dedication to equity and begin to maliciously comply with orders. As President Johnson said, "You can tell them to go to Hell but they just won't go." David Schmaltz is more direct; he says we must all confront the Master-Slave relationship inherent in classic project management (Schmaltz 2003).

The essential shift in leadership flows then from this new understanding of management. Leadership is the ability to make the opportunity for a better future apparent. When management is understood in commitment terms, the nature and thrust of leadership changes from focus on the goal imposed and the motivation to achieve it, to producing the trust necessary for people to connect their interests, coordinate action, learn, and innovate together. Steven Spear goes to the heart of this when he says,

"It is one thing to realize that the Toyota Production System (TPS) is a system of nested experiments through which operations are constantly improved. It is another to have an organization in which employees and managers at all levels in all functions are able to live those principles and teach others to apply them. Decoding the DNA of Toyota doesn't mean that you can replicate it." (Spear 2004).

## FOUNDATIONS OF THE NEW LEADERSHIP

Successful teams are based on a foundation of trust. People come to trust others when they show a pattern of reliability in making and keeping promises, share common concerns, and are sincere. This happens in language as people make requests, negotiate, establish conditions of satisfaction, perform, declare complete, and accept the work (Macomber & Howell 2003). Listening is the master skill for leaders in this model. It

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<sup>6</sup> Some practitioners immediately realize that they have been managing their project as a network of commitments. Based on this distinction and supported by some basic background in *LAP*, these managers are able to expand, explain and teach their approach to others.

includes listening for and clarifying requests and promises, and listening more deeply to understand how the interests of others can be served. When leaders listen for and are willing to be influenced by underlying concerns or interests, they can “articulate and activate the network of commitments” that can succeed for that one unique project organization. “Working” in this network produces the trust necessary for people to risk learning and innovating together and finally to complete the physical work.

Producing trust turns strangers into friends and then partners. Trust is established when strangers come to see each other as reliable performers for each other. While that can happen, it usually doesn't *just* happen. And all too often the strangers we assemble for a project, each carrying whip marks and scars, begin with suspicion then learn to distrust.

The new role of every project leader (project architect, consulting engineer, or project manager) is to shape circumstances for team members to deepen their relatedness by developing a shared understanding, cultivating commitment-making, and producing coherence of intentions. This happens as people work together and actively explore the way others interpret the world. Most often this exploration begins with the question, “Why do you say that?” asked in a mood of curiosity. Leadership starts, facilitates, and participates in these conversations. Without these conversations, we cannot expect that an assembly of people will function as a team. Clients expect those we put in charge of our projects will create a coherent team and be responsible for cultivating and shaping it through the life of the project.

## **LEADERSHIP FOR THE NEW PRODUCTION PARADIGM**

Lean production is a new and powerful way to manage the physical work on projects; it can be understood as a new paradigm. To the greatest extent possible, lean production aims to replace the central “push” (command) function for advancing inputs and resources, i.e., “stuff” with distributed “pull.” Where push advances stuff based on a master schedule, pull advance is when the system is ready to use it. Pushing stuff with master schedules, giving orders for action, has not worked well because it does not produce predictable workflow between stations. Experience has shown that centrally managed planning systems do not accurately predict what work will actually be ready in the coming period. About 50% of assigned work is completed to hand off criteria on projects managed with push planning systems (Ballard & Howell 2003). Pull systems such as the Last Planner System™ of production control typically produce above 70% assignments completed as promised. “Pull” systems in general and the Last Planner System™ in particular run on requests and promises; they embed linguistic action in the design of the production control system. Shifting to pull systems is more than simply installing new planning software. It is a shift in our fundamental understanding of work and the social system in which it occurs.

Current project management, resting as it does on Fayol’s model, fails to create the conversations necessary to develop a shared background of obviousness and common concerns. People working under traditional project management protocols do not, indeed cannot, demonstrate a pattern of reliability. It is little wonder that concern for communication and trust is ubiquitous and central in partnering sessions. Unfortunately, talking about trust while applying a command and control management model leads to resignation and cynicism.

Lean construction is about more than managing the physical work in new ways. A new common sense emerges when work is redefined as making and keeping

commitments. We believe that some if not all of the best project managers already operate from this sensibility. Unfortunately, they don't know what they know. Making explicit the practices necessary to "articulate and activate the network of commitments" sharpens and extends our understanding and redefines common sense.

## SUMMARY

Fayol's explication of management likely documented and perhaps advanced the acceptance of command and control. He can hardly be credited with the invention of this approach that is now so deeply embedded as to be "common sense". But management based on Fayol's formulation is now challenged by a new model built on the ability of people at every level to participate in the creation and completion of projects. Key differences between the approaches are summarized in Table 1 below.

	<b>From Fayol</b>	<b>New Approach</b>
<b>Paradigm</b>	Reductionist, mechanistic--deterministic: Project as a machine shop. Fayol's command and control. Taylorist mass production.	Holistic and organic -- emergent: Project as a human social endeavor. Flores' <i>LAP</i> network of commitments. Lean production.
<b>Problem to be solved</b>	The efficient allocation and use of resources, i.e. "things."	Building and maintaining trust so reliable promising, learning, and innovation can occur.
<b>Vision of the future</b>	Created and held by management, told to workers	Co-created and communicated by story
<b>Planning</b>	The primary act of management, the work of experts.	The practice among a team for producing coherence of commitments with the promises to the customer
<b>Role of Plans</b>	Central in execution & control, the basis for initiating action.	Rehearsal to prepare performers for action in the uncertainty of the future. Promises for delivery. Not used for project control.
<b>Operational Intelligence</b>	Resides in management.	Resides at value-adding level, among all performers and constituents
<b>Role of management</b>	"Management-as-Planning." Creation and implementation of plans (Johnston 1996).	"Management-as-Organizing" Creation of a coherent organizational structure & culture, particularly the sanctioned means of communication between "production units", i.e. the infrastructure of the "network of commitments." (ibid.)

<b>Role of workers at value-adding level</b>	To do the work prescribed by management's plans & decisions; robots	Autonomous intelligent agents with decision-making ability & responsibility who exercise judgement in the midst of action; people
<b>Leadership model</b>	Command and Control. Directive communications to workers at value-adding level.	Coaching. Continual fostering of an organizational environment conducive to building trust among people for collaboration, learning, and innovation.
<b>Motivation</b>	Externally-generated rewards and punishments directed towards attainment of narrowly focused, imposed goals.	Internally-generated. Individuals connect their interests and innovate together towards a shared larger goal than possible for any individual.
<b>Central technique</b>	CPM plans and schedules	Conversations at each level: Phase, look-ahead, WWP – LPS

## CONCLUSION

We come together on projects as strangers, each from a different background with different interests, each with our own history and carrying our own concerns. So each of us operates with a different background of obviousness – our way of functioning and seeing the world, the possible future, and how we should act as we move toward it. Moving from strangers to friends to partners does not happen by accident, nor is it likely to happen given enough time. Creating a coherent team takes time, engagement, and reflection. Producing trust occurs as people participating in a network of commitments, acting in language, come to see each other as reliable performers, and learn to align and connect their interests with each others' interests and with those of the project.

In this paper we have argued that there is a new understanding of management that forcibly challenges us to redefine leadership. In this new understanding, trust is paramount because it allows us to pursue common interests, to take the risk of learning and innovation, and to coordinate our actions. Leadership is no longer a matter of motivating those who have subordinated their interests, rather it is working with them to reveal a new future.

## REFERENCES

- Ballard, Glenn, Howell, Gregory, (2003). "Competing Construction Management Paradigms, Proceedings of the ASCE Construction Congress, Honolulu, HI, March 2003.
- Flores, F., (1982). *Management and Communication in the Office of the Future*, PhD Dissertation, University of California at Berkeley, p.42.
- Ford, H., (1926). *Today and Tomorrow*. Productivity Press, Reprinted 1995.
- Harper Collins. (2000). *The Collins English Dictionary*. Harper Collins Publishers.

- Koskela, L., Howell, G., (2002). "The underlying theory of project management is obsolete." Proceedings of PMI Research Conference 2002 Ed. by Dennis P. Slevin, David I Cleland, Jeffrey K. Pinto. Project Management Institute.
- Johnston, R.B., Brennan, M., (1996). "Planning or Organizing: Implications of Theories of Activity for Management of Operations." Omega, International Journal of Management Science. Vol 24, No. 4. pp 367-384, 1996.
- Kuhn, Thomas. (1962). *The Structure of Scientific Revolutions*. University of Chicago Press.
- Macomber, Harold, Howell, Gregory, (2003). "Linguistic Action: Contributing to the theory of lean construction." Proceedings of the 11<sup>th</sup> Annual Meeting of the International Group for Lean Construction. Blacksburg, Virginia, pp. 1-10. July 2003.
- Schmaltz, David. (2003). *The Blind Men and the Elephant*. Berret-Koehler, San Francisco.
- Spear, Steven., Bowen, H. Kent., (1999). "Decoding the DNA of the Toyota Production System." Harvard Business Review, September 1999.
- Spear, Steven., (2004) "Learning to lead at Toyota," Harvard Business Review, May 2004.