

The Psychology of Lean Management

Working Paper n°19
Projet Lean Entreprise, Télécom ParisTech

Michael Ballé¹, ESG Consultants et Télécom ParisTech

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¹ m.balle@orange.fr

When was the last time you remember thinking “I was wrong about this”? Yesterday? Last week? Never? Let’s conduct a short thought experiment: force yourself to think of an instance, any instance, where you were clearly wrong. How does it feel? Are you already lining up the mitigating circumstances (anyone would have done the same in this situation / that’s who I am)? Or the upsides (in the end, it’s a good thing that I was wrong because I’ve learned / cleared the air/ made things move, etc.)? If you are, don’t worry: this is perfectly normal and a sign of sanity. Only the clinically depressed are truly honest about themselves.

Our brain does many very useful things for us and, among the many services it provides, it works full time at protecting our egos. We don’t make mistakes. When we do, we didn’t really (“mistakes were made” as politicians are wont to phrase it). And in, any case, these so-called mistakes were, in fact both unavoidable and lead to some silver lining. This hard-wired response expresses itself in how our internal dialogue frames awkward situations and, by and large, it pulls us through the day. Indeed there is evidence that people with the fewer doubts are overall happier (though not necessarily their close associates). It has only one drawback – it slows learning and discovery.

True learning, learning about how to master a task or a situation one previously did not know, is hard. Learning is fun when it’s about finding out new information that enriches, supports or extends things we are already convinced of. But exploring a new domain is hard, damn hard, because at first, we do it wrong – we fail. Practice makes perfect, and it’s only by sticking at the task long enough that we eventually forge the right mental models which will allow us to perform it well. As a child, and a teenager, teachers and parents are on your back full-time to make you learn. And, granted, the mind is more pliable and less filled with experienced-backed certitudes. But as a grown-up, nothing out there induces you to learn. A few genuinely enjoy the “aha!” kick and seek new challenges for the fun of it, but most people will abandon any new task after the first efforts when it doesn’t pay back immediately. At work, the higher up the food chain you find yourself, the more validated you are – so the less inducements to learning you’ll face.

Studies of societal collapse, business cases of company crashes, and headline news of the latest fiascoes all express in various ways the failure of high powered people to adapt to changing circumstances (ie to learn), which makes them lead their followers or employees into dead-end situations, often painfully so. Only the great learn from their mistakes. Most

keep repeating them until they vanish – it's not that surprising, as what the outside observers see after the fact as mistakes are often cherished truth for those in the thick of the action. Your brain is very clear on two facts: firstly, you were right then (which got you the job), so you're right now; secondly, if you admit to being wrong, or even possibly wrong, what will the others think? They'll lose all trust in you and you'll find yourself out in the cold.

Post hoc analyses of large-scale failures can be summarized in the four following points:

- Failure to accept that our current actions create problems
- Failure to recognize those problems when they occur
- Lack of will to deal with these problems even when they are recognized
- Lack of skills to deal with these problems even if the will is there.

In most instances, at the failure point, the people involved are trying very hard to get out of their predicament and not necessarily in the wrong way, but learning new tricks takes time for trial-and-error; getting political traction to initiate the trials takes time; recognizing signs of deep-seated problems amongst the noise of getting on with the job takes time; and accepting that, maybe, just maybe, their might be a backlash to all the great things we're doing right now is not immediate either. We all feel we'll have to pay the piper some day, but that seems far in the future. As a result, by the time change has become desperately urgent, the know-how do so are simply not there.

Back in the 1960s, the managers who developed Toyota's unique approach to management felt threatened by a very specific disaster: their failure to develop competitive home-grown automobiles (in both quality and cost) would lead them to manufacture US designs for the Japanese market. Scratching their heads constantly to figure out how they could possibly catch up to such juggernauts as postwar Ford or General Motors, they hit upon an intriguing set of ideas:

- First, misconceptions in manufacturing and design lead to overcosts
- Second, the way to uncover these misconceptions is through kaizen: taking small, relentless improvement steps
- Third, looking for misconceptions requires constant effort, and the workplace itself should reveal problems
- Fourth, to be sustained over time these efforts must be related to overall breakthrough challenges.

These four ideas are not revolutionary in themselves. Indeed, the scientific process works very similarly by focusing investigations on areas where predictions of the current model are false, rather than by reaffirming eternal truths (the field of religion and philosophy). Their power lies in breaking down the overall fate of the company into concrete chunks, which can then be acted upon.

Misconceptions add unnecessary costs to products and operations (usually called “waste”) is probably the most deceptively simple and powerful of these ideas. All competitors have to deal with a set of common unavoidable costs: cost of materials, local cost of labor, cost of equipment, and so on. But, wrong-headed notions about how to produce will add to these foundation costs an extra layer. Famous examples include looking for defects at the end of a production line, hence building faulty products to the end, only to scrap them at the end of the process (not to mention some will get through and reach customers). Another well-known case is batching as opposed to producing in single-piece-flow. When Taiichi Ohno, the engineer who came up with many of the early techniques of the Toyota Production System, conducted this experiment, he claimed he got a twenty to thirty percent throughput increase every time. Extraordinarily, I have performed the same experiment countless times half-a-century later, with the same results. As you practice, you begin to see that misconceptions lead to unnecessary cost-of-use for customers, unnecessary cost of production in delivery, and unnecessary conflict and hassle for employees.

With misconceptions in mind, the second insight of Toyota engineers was that to teach people to change their mind, they had to learn by doing. Because we know what we know (and of course, we are right), intellectual learning of new ideas is extremely slow. Most people will be interested in “new” ideas in the comfortable setting of a classroom, but few will have the curiosity or the gumption to try it in their own work areas when they step out. Small-step continuous improvement is about creating the iterations that permit people to learn, and to change their minds. Indeed, “kaizen” was structured around the “PDCA” learning cycle: Plan (what do you want to do, to achieve what?), Do (do it), Check (has it worked? To what extent) and Act (what conclusions do you draw? Do you need to do it again? Do something else? Etc.) Jinchiro Nakane and Robert W. Hall summarize Taiichi Ohno’s method of leadership as:

1. Mentally force yourself into tight spots.
2. Think hard; systematically observe reality.
3. Generate ideas; find and implement wise, ingenious, low-cost solutions

4. Derive personal pleasure from accomplishing kaizen.
5. Develop all people's capabilities to accomplish steps 1-4.²

Recognizing the problems created by one's own practice remains profoundly counter-intuitive, and yet it is the very source of continuous improvement kaizen-style. Consequently, over time, Toyota engineers and frontline managers developed a unique practice of "visual management": visualizing work standards in the everyday working environment so that problems (ie abnormal situations) will be revealed. This is not about posting powerpoint indicators on a wall, but more like building a traffic visual system with white line, traffic lights, pedestrian crossings and so on. At any moment on the shop floor, anyone should be capable of seeing whether operations are in normal conditions or whether something is wrong, *without having to ask*. This is a unique skillset that was developed over years as a support to kaizen. Because hiding problems comes so naturally to all of us, the practice forces problems out in the open. This both ensures day-to-day stability of operations by getting people to react immediately to any abnormal situations, and spurs kaizen when abnormal situations repeat themselves at a given location.

Now, conducting kaizen on top of the every-day job and maintaining the visual management is demanding: no one naturally likes to recognize they have problems, and worse, to reveal them; we don't usually get out of bed every morning enthused with the will of facing our problems and ready to stick with it until we learn how to. Through practice, Toyota developed a further unique management technique of "challenge." Challenge works in two main ways. First, at management level, breakthrough topics are identified to obtain breakthrough performance: in order to significantly improve performance, what are the key problems we need to solve? Zero defects is a typical breakthrough challenge ("quality now – success tomorrow" as the slogan goes). Or zero-emissions cars, cars that clean up the air they use. These breakthrough challenges are then broken down in measurable chunks by frontline management and communicated to all employees. The second aspect of "challenge" is the creation of a parallel organization line of coaches (senior coaches are senseis, junior coaches are coordinators or trainers) whose only function is to devise kaizen exercises for line managers to learn how to reach challenges step-by-step.

² Nakane, J. & R. Hall, 2002, 'Ohno's Method', Target: Volume 18, Number 1: 6-15,

With these three innovative techniques, Toyota counters the brain's profound reluctance to face the problems it creates with another trick of the mind: our addiction to puzzles. Ideally, the management practices take out the hard part of getting to learn: it is acknowledged that we all create problems, and that's okay; the visual management system enables us to recognize the problems we create; and the challenge element holds our hand with the collective will to solve the problems. Kaizen offers a methodical approach to learning, and what is now required is the capacity to learn specific skills, as opposed to the full entrepreneurship requirement of facing one's problems. When it works, people get hooked in that environment just as one gets caught by a video game. Larger purposes are broken down into immediate puzzles that people are eager to solve to get the "aha!" endorphin kick – which is also hard-wired and makes us tool-builders, users and natural problem solvers.

As Toyota developed this "problems first" approach to management, its leaders quickly hit upon the political side of human nature. Acknowledging our own problems is all very well and fine, but this is also exposing ourselves to the very real risk of being blamed and shot for the problem one has exposed. Killing the messenger is one of three knee-jerk responses profoundly ingrained in our psyches. The other two are: first, making us versus they distinctions, and blaming they; and second shifting the blame on to someone lower on the power ladder. Indeed, the very nature of politics is about one-upmanship, astutely dodging bullets (particularly when mistakes come to roost) by closing the ranks against "them" or finding a convenient scapegoat. As quality guru Ishikawa once pointed out, the next people in the process are not our enemies – they are our customers. Consequently, to make the "problem first" attitude safe, Toyota's early leadership found itself emphasizing constantly two core principles of teamwork - the commitment to solve problems across functions - and respect - managers are held responsible for the success and engagement of employees in their charge.

Clearly, getting managers to identify the problems they're handling of their processes create in terms of waste, and supporting them to solve these problems and improve said process (in other terms "leaning" the process by shaving away waste-driven layers of costs), but what's in it for employees? What about employee satisfaction? From a psychological point of view, the main sources of dissatisfaction at work are bad relationship with one's boss or co-workers; feeling dispossessed of one's work (just a cog in the machine, a slave to the system); and being either overstressed by tasks beyond one's competency level, or underchallenged by

tasks well under one's competency level. Emphasizing teamwork across functions and hierarchical levels, and supporting employees in improving their own work areas, and in the process to gain step by step competence at challenging tasks, aims to create an environment where employees both feel mentally and physically secure whilst free to do their work at the best of their abilities. Ultimately, the management foundational deal shifts from hands-for-wages to brains-for-development. Employees commit to look for smart ways to enhance customer satisfaction and productivity and the company commits to offer them a secure work environment with developmental opportunities.

Five principles shape the core of lean management:

1. **Go and see:** the management practice of going to the workplace to check that the visual management is in place, that people are doing what they're trained to do and to get teams to agree on their main problems and how they're going to solve them.
2. **Challenge:** singling out the key breakthrough results needed to sustain a higher level of performance of the business model, and breaking these breakthrough areas into local contributions to share overall objectives with every employee and show them how each team can contribute.
3. **Kaizen:** coaching employees to acquire the necessary skills to face the breakthrough challenges by getting them to conduct regular small-scale improvement exercises, on the job and as part of day-to-day work, with the support of expert coaches.
4. **Teamwork:** creating platforms for kaizen across functions where specialists must come together and solve transverse problems. Teams are the basic building block of the organization, and seen as the key to individual development (learning to improve relationships to solve problems collaboratively).
5. **Respect:** managers are held accountable for the success of their own staff, which they need to develop and engage. Issues are taken seriously and suggestions are encouraged and supported all the way to implementation.

Lean management is a radical departure from traditional managing-by-numbers in that it seeks a substantially higher level of performance. Managing by results is about picking the people one likes as managers, pointing them towards specific objectives (you get a bonus if you reached the target, and in trouble if don't) and letting them get on with it. As an approach, it gets things done, but at a cost. As organizations are greatly interlinked, in many cases, one's

numbers are achieved at the expense of problems to others. Overall, the disregard of processes and relationships creates much higher systemic costs than necessary, taken out of customers' pockets (or in the form of cost-of-use for customers) and out of the bottom-line. The main psychological aim of lean management is to make people to clarify the cause-effects relationships between the way they work and their performance level, so that these causal relationships can be shared and refined. "Get things done, hit the target and damn the rest" is not considered a viable, long-term option. Lean management strives to help all employees see the consequences of their actions on their processes, understand the problems they create, and realize that they have the power and creativity to change things and improve both performance and process.

There ain't no free lunches. There is no such thing as a perpetual motion machine. Lean management is not a panacea, and there are as many ways of gaming this system as any others. Managers can hide their problems, or use the fact that others play the game and reveal theirs against them. Managers can try to copy-and-paste rather than have the patience of learning through kaizen. Managers can pay lip service to challenges and not both to think them through and visit the workplace to see what they really entail. Managers can use productivity tools to squeeze their pound of flesh out of workers and not give anything back. With the wrong attitude, any system can be turned into the opposite of what it was meant to be. Lean management requires constant leadership to make sure that its foundational tenets hold fast: are understood and practiced in everyday situations. As an executive, this is demanding. It means going to visit a workplace everyday, check the visual management in place and discuss with problem-solving groups to see whether they are solving the right problems the right way – and listen to what people have to say. As top management, this means patiently selecting and developing the right kind of leadership in one's executives: people who are self-motivated to learn and who have the drive to develop others. The way is narrow and steep while there are so many other ways to follow the path of least resistance. Not surprisingly, above average performance requires special effort.

The revolutionary part is that lean management redefines the very psychology of leadership. Most people who have practiced it over years find themselves shifting – in Steve Spear's terms – from deciding to discovering. The basic psychology of traditional leadership is one of decision making and execution. Leaders are assumed to already know everything and see the brilliant path were others do not, formulate their strategy and get the rest of the business to

implement it. Lean management practitioners find themselves developing a challenge-based “strategy-less” leadership that is about exploration and the relevant fact and the practical ways to solve problems. It’s a form of knowledge leadership based on discovery and collective resolution. The ultimate aim of lean management is to leverage every employee’s potential to be an innovator in their field and to marshal all these efforts towards greater overall performance by building up relationships and processes. Traditional leadership can never be learned and leaves companies at the mercy of pot-luck brilliant leaders – or disappointing ones. Lean management leadership is less flashy, but can definitely be grown over time, and it leads to better outcomes supported by better processes.

It’s not just that great companies learn from their mistakes – but that greatness lies in making mistakes and learning from them. No plan will realize itself without unpleasant surprises, no process will remain problem free. Ignoring problems has a cost. Not making mistakes also involves stagnation. Not planning for change means getting overtaken by events. Workplace psychology generally oscillates between doing what we feel is right and damn the consequences, or not doing anything for fear of consequences. Lean management offers a revolutionary way to leverage individual leadership by outlining practices to recognize problems and solve them collaboratively. Lean companies will never be great because they’re perfect - their environment will always change and throw curved balls. They will be great by their ability to face their challenges, solve their problems and develop every one of their employees.