

*The Evolution of Lean **

*** Actually... evolution in our understanding of Lean**

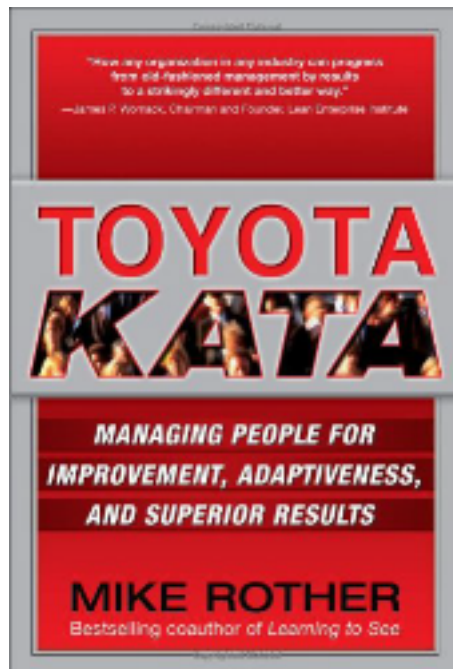
Mike Rother
July 2010

***The next piece of the puzzle
for Lean and Management***



EXPAND YOUR THINKING ABOUT LEAN

We're learning to see Lean, continuous improvement and innovation a new way



Focusing on waste elimination and cost reduction alone has gotten stale and is no guarantee of business success. What do you want to achieve?

The research that led to the book Toyota Kata looked into the intention behind Toyota's practices and principles. It's much more about challenge and nurturing the human resources that go into enterprise than you might think.

When you get to this level in Lean the lessons become universal and change how you view your job as a leader and manager.

WHAT ARE WE LEARNING ABOUT LEAN?



Examples:

- Natural selection
- Sexual selection

Examples:

- Ability to envision
- Ability to learn

Examples:

- Challenge/Striving
- Scientific approach / PDCA
- Practicing an Improvement Kata
- Managers as coaches

Examples:

- Continuous improvement
- Pull
- Leveling
- Make problems visible

Examples:

- Eliminate waste
- Kanban
- Heijunka
- Assembly cells



HUMAN ENDEAVOR OR CHALLENGE

To aspire, strive or reach.

A conscientious or concerted effort toward an end.

Purposeful or industrious activity; enterprise.



THREE KEY POINTS



Point 1:

WE MISTOOK COST CUTTING AND *ELIMINATING WASTE* AS THE ACTIVITY OF LEAN

The activity of Lean is more interesting than that!



Eliminating waste is not a goal in itself. It's something that happens while you strive for something.

After taking steps you can look back and say you eliminated waste. But that's an outcome, not what you *did*.

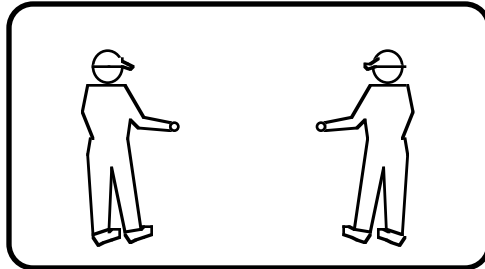
What you actually *do* in Lean is work through the obstacles that lie between you and a new desired condition, such as:

- Processing tissue samples in one day
- Providing warranty repairs in one week
- Painting parts within the 1x1 flow of an assembly process
- Operating a process with four instead of six operators



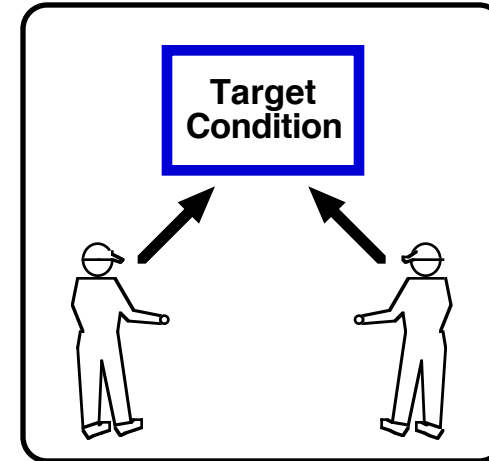
ELIMINATING WASTE DOESN'T INVOLVE STRIVING *TOWARD* SOMETHING

Waste Hunt



"We moved the blow-off hose closer to the operator to eliminate some waste."

Striving Toward Something



"We moved the blow-off hose closer to the operator, which got us a step closer to our next target condition."

A narrow focus on minimizing waste & cost is not what will help our organizations meet the challenges they face and differentiate themselves from competitors.

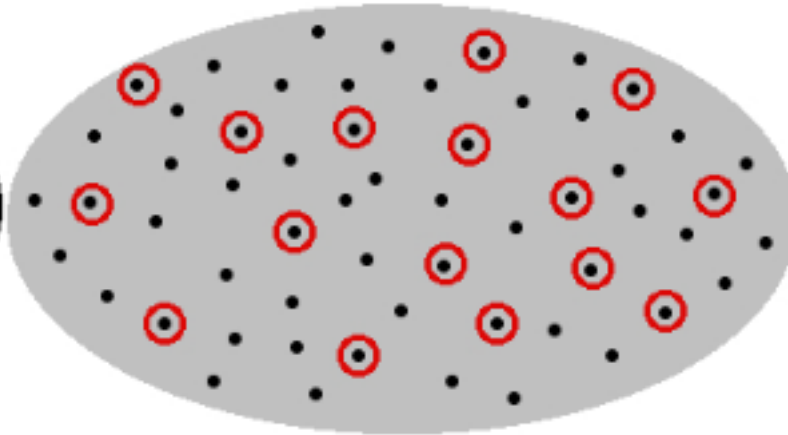
The Lean revolution means kaizen everywhere, but not *everything*. It involves working on those things that move you from your current condition to a defined new target condition.

NOTICE THE DIFFERENCE

Going after waste / problems / opportunities



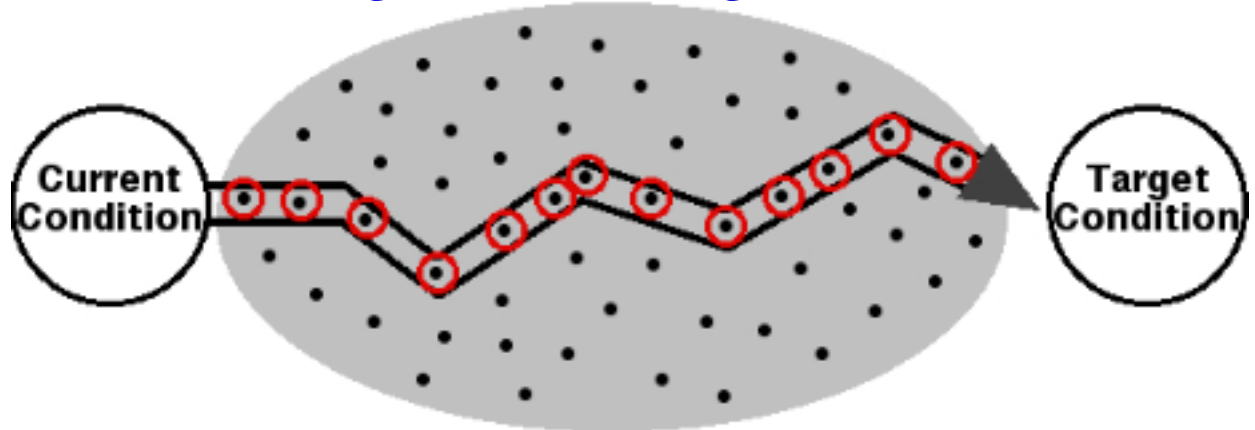
Current
Condition



Iterating toward a target condition



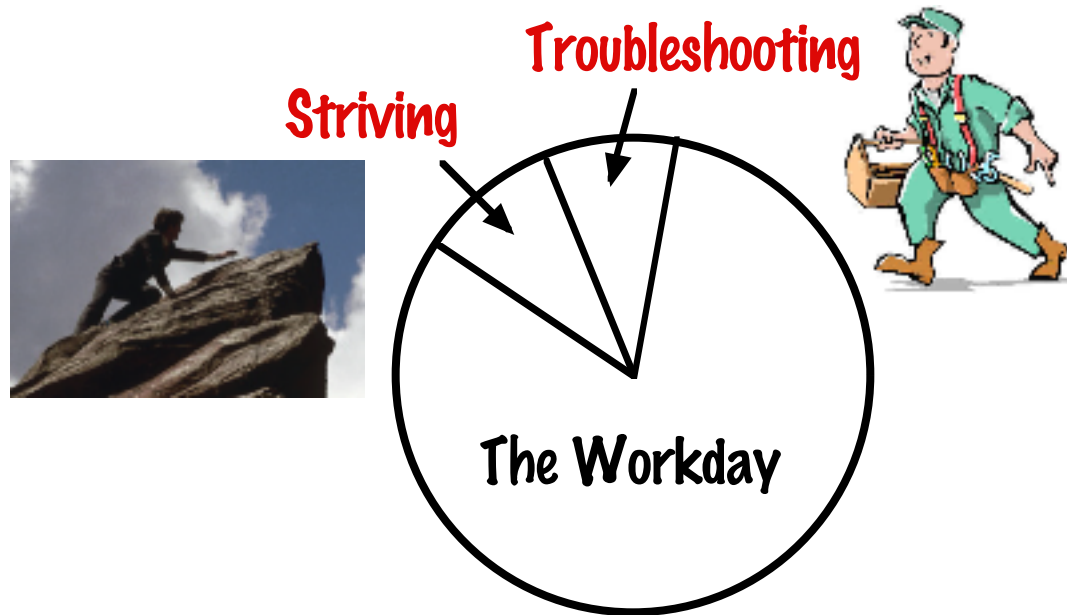
Current
Condition



SUSTAINED COMPETITIVENESS TAKES STRIVING TOWARD SOMETHING

Just reacting to problems (troubleshooting) is not what Toyota is doing. That's not enough to generate sustained competitiveness.

Thriving in unpredictable, competitive circumstances involves actively and systematically striving for something, not just reacting to problems and trying to counteract entropy.



The point is that in order for your organization to thrive, some portion of everyone's workday should involve striving toward the next overarching Challenge and local Target Conditions.

SO WHAT IS LEAN ABOUT?

In addition to the well-known Lean practices, much of Lean is about mobilizing human ingenuity toward challenging objectives

Ingenuity = Creating a way of doing something we want but cannot yet do

The target condition a team strives for can be big or small, it doesn't matter:

- ☐ An assembly operator and team leader want to find a way to drive screws without cross-threading them
- ☐ We want to operate an assembly cell with four instead of six operators (at the same output)
- ☐ We want to injection mold parts in lot sizes 80% smaller
- ☐ We want to develop an electric car that goes 250 miles on a single charge

Key point: the situation (*something we cannot yet do*) and the approach (*iterative learning*) are the same in each case above

OK... HUMAN ENDEAVOR & INGENUITY BUT IN WHAT DIRECTION?



Point 2:

WE MISTAKENLY THOUGHT THE DIRECTION IS OUR CHOICE

We sometimes discuss and argue about which way our improvement efforts should head, as if it is our choice



**Actually: 1x1 flow is a major direction-giver,
whether you like it or not**

SOMEDAY IN THE FUTURE

A customer will want **one** unit of your product or service, and a company will provide it, then and there, at the right quality & price



The only question open to you is... do you want to be that company or will it be someone else?



A BETTER DEFINITION OF *LEAN*

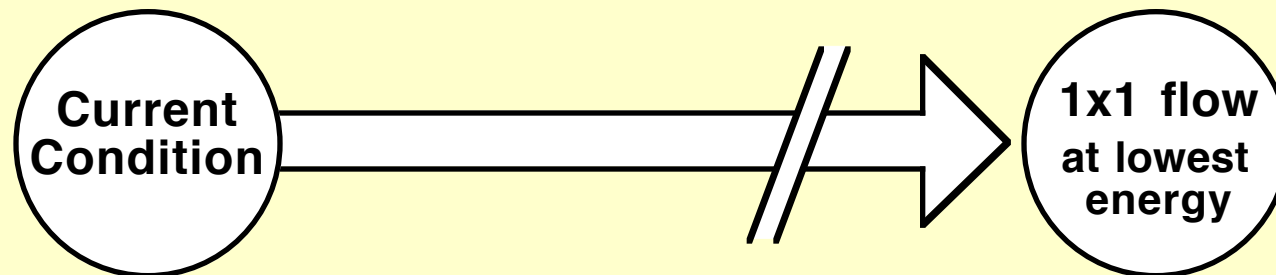
*A permanent struggle
to better flow value
to each customer.*

MUCH OF HUMAN ENDEAVOR

Has involved an inexorable striving toward
“1x1 flow at lowest energy”

Humans have been striving toward greater 1x1 flow for centuries, when we define it as follows:

--> Getting value that is wanted or needed,
when and where it is wanted or needed.



Key point: You don't have to be at 100% 1x1 value flow. You just need to keep moving toward it and stay ahead of your competition on the way there.

THIS TRAJECTORY IS INEVITABLE

Striving toward 1x1 value flow is constantly going on around us.
So any organization that decides it doesn't need to keep working to get closer to 1x1 value flow, retires from the game.

What does the customer really value? Examples of *retiring from the game*:

- ☐ Assembling lawnmowers, but not working on improving how lawnmowers are assembled
- ☐ Producing lawnmowers, but not working on producing them in smaller lot sizes
- ☐ Manufacturing lawnmowers, but not working on developing grass that stops growing at 3 inches



EXAMPLES OF STRIVING FOR 1x1 VALUE FLOW THROUGHOUT HISTORY

Music

In the 19th century if you wanted to hear Strauss play a waltz you had to invite him. Later we could go to the store to buy records and CDs. Today music plays on your mp3 player, downloaded from the internet.

Books

Prior to the 15th century if you wanted to read a book someone had to write it by hand. Then Gutenberg began printing them. Eventually publishing companies were born and you could buy books at a bookstore. Now you order books online, or download them to a reading device.

Mail

Once we sent letters by horserider. Then came mail coaches. Following that was once-daily delivery to your door. Today we communicate anytime via telephone, email and Skype.

Examples by Mr. Gerd Aulinger

What examples can you think of?

How about running water, agriculture, bridges, glass windows, and so on...

THE ACTION OF INNOVATION

A wide range of human activity -- involving everyone in every area of an organization -- entails working to get ever closer to 1x1 value flow.

For example... although the customer may ultimately want a hole and not a drill, there will be many intermediate steps and developments - large and small - throughout the organization before we can do that.

There will be many target conditions along the way, and lots of iteration, or PDCA, as we strive to achieve them.

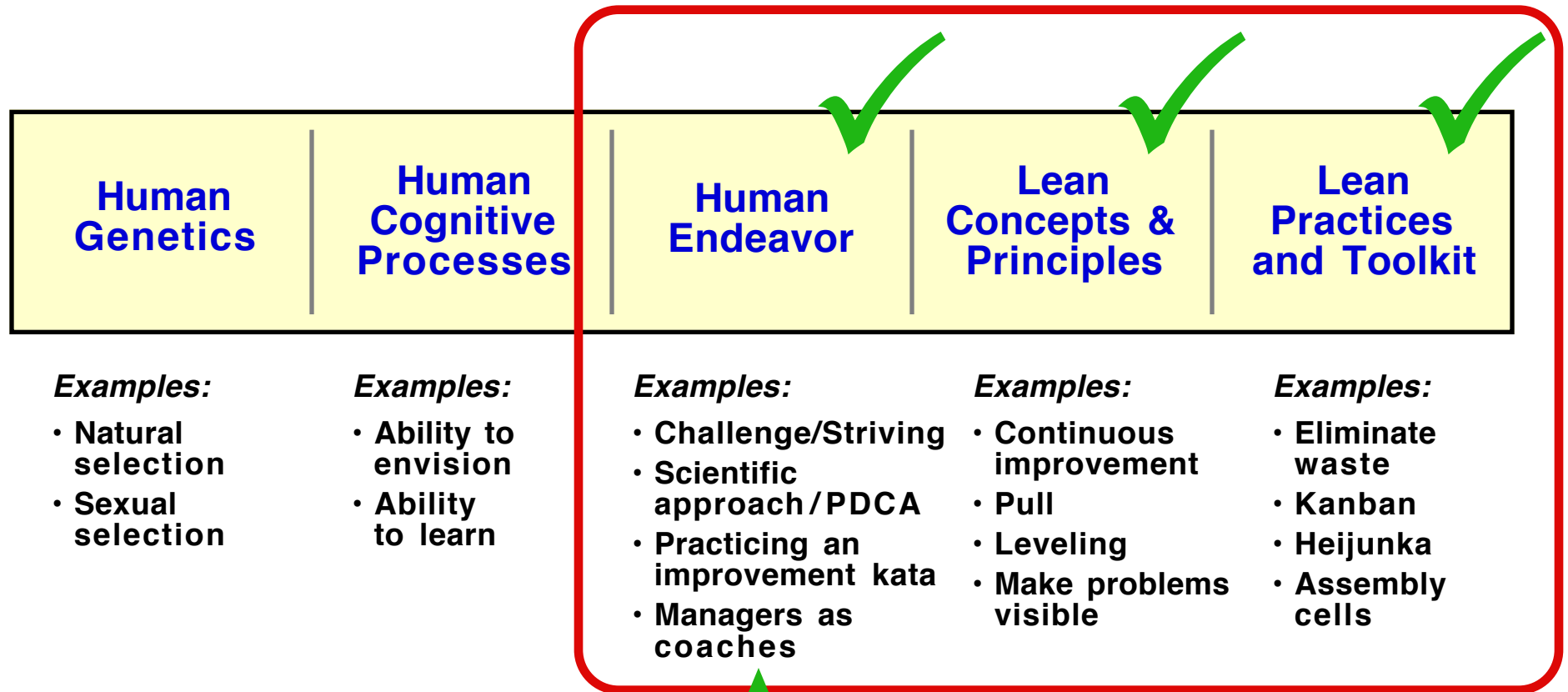
Unlike what you may think, the *action of innovation* is the day-to-day enterprise of iterating toward a goal, undertaken across an organization. The people in your organization are the innovators.



That's how we did it!



WE NOW HAVE A BETTER PICTURE OF LEAN



This is the context within which Lean practices, tools, concepts and principles are designed to work.

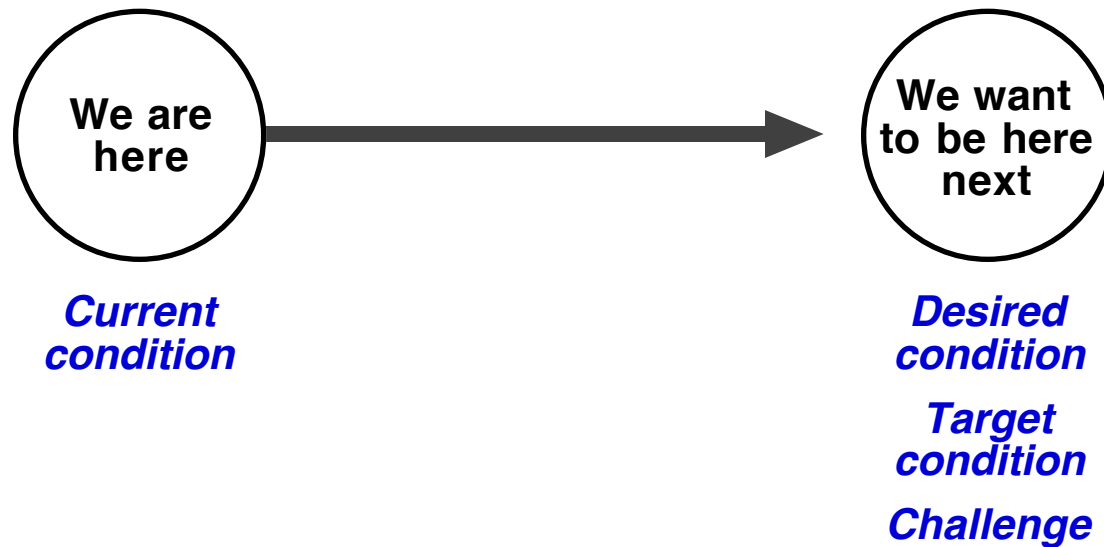
Without this context, Lean doesn't generate continuous improvement and tends to be perceived and pursued only as cost cutting.

Point 3:

WHAT IS MANAGEMENT'S JOB?

The Toyota Kata definition of “management” =

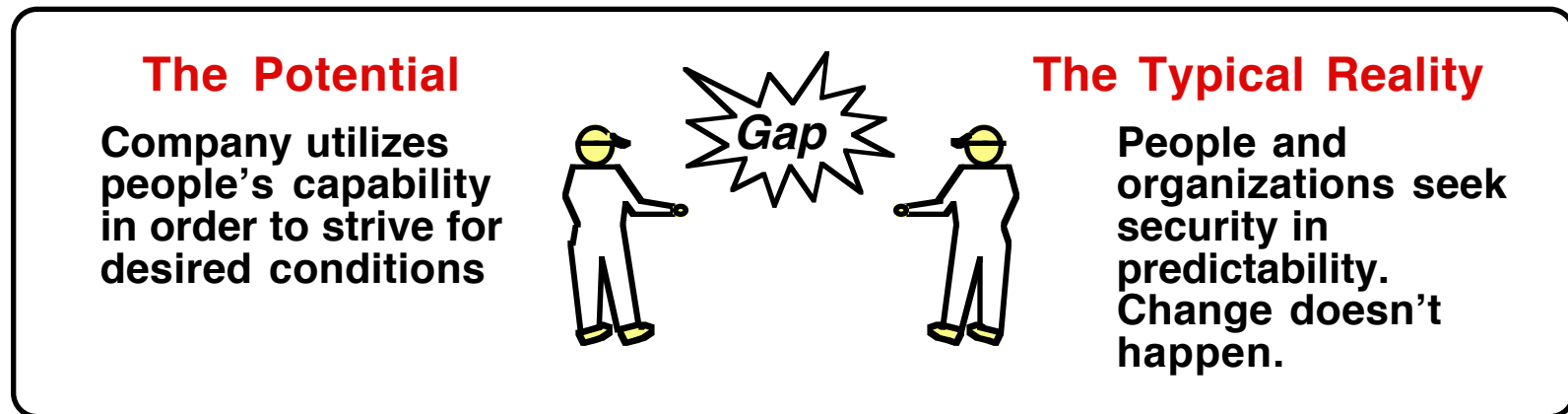
*The systematic pursuit of desired conditions
by utilizing human capabilities in a concerted way*



MANAGING COLLECTIVE INGENUITY

Humans are equipped to handle challenges. Our capability for learning allows us to improve, innovate, create and adapt, and thus so can our organizations!

That is... as long as we have learned an effective way to meet challenges. Our capability comes into play when we lead and manage ourselves in a way that develops, mobilizes and utilizes that capability.

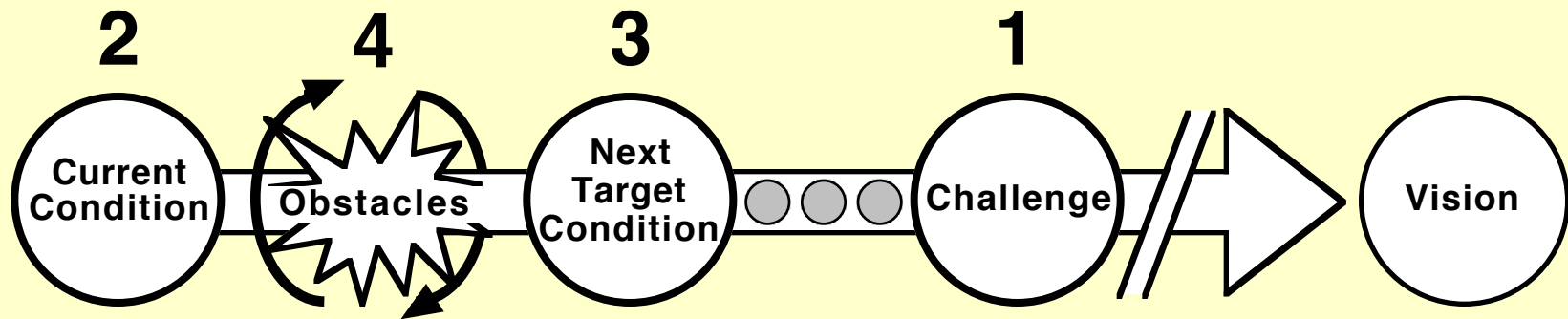


Meeting challenges as an organization requires teaching the organization's members how to do it in their everyday work

A TASK FOR MANAGERS

Coach the organization's members in practicing a routine (Kata) that develops & utilizes their creative powers

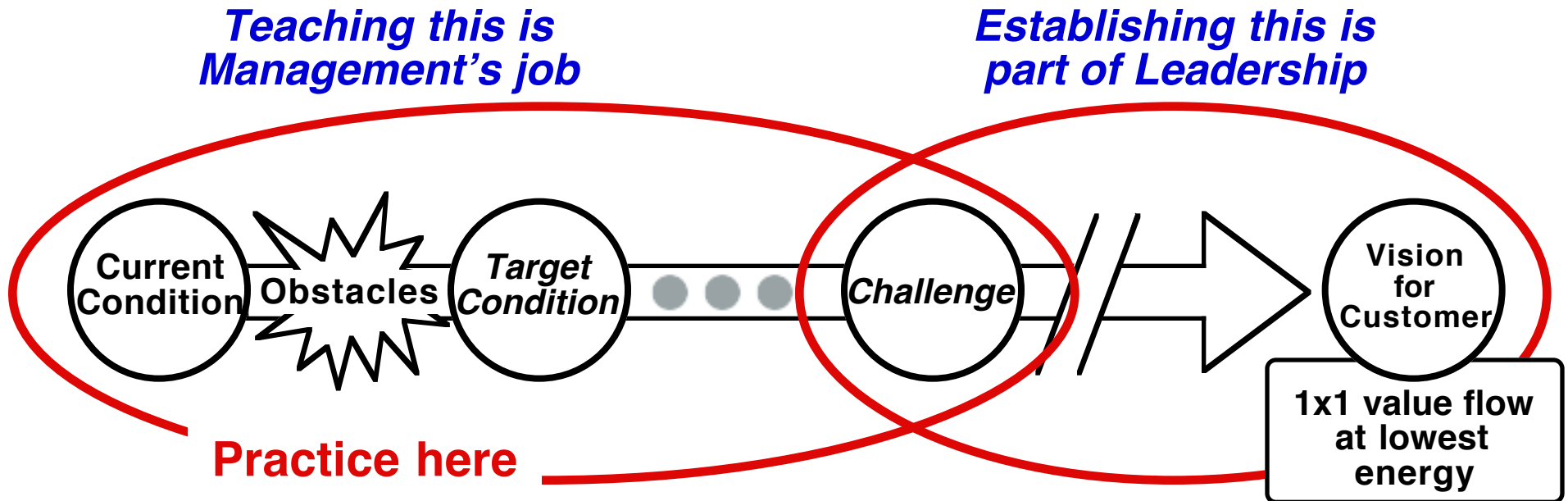
A four-step routine to practice: The Improvement Kata



- 1 In consideration of a direction or challenge...
- 2 Grasp the current condition.
- 3 Define the next target condition.
- 4 Move toward that target condition with PDCA, which uncovers obstacles that need to be worked on.

The Improvement Kata is a way of achieving things that you don't know how you are going to achieve

MANAGEMENT + LEADERSHIP



Leading involves establishing strategic purpose, defining challenges, ensuring that managers teach an effective way of meeting those challenges, and modeling the behaviors.

Managing involves teaching people how to work systematically and scientifically along uncertain paths to achieve local goals on the way to overarching challenges.

THIS IS A DIFFERENT MANAGEMENT TASK

In the Lean approach, the job of managers is not to get the results, but to develop people so that results can be achieved

Traditional Management Focus on solutions
<ul style="list-style-type: none">• Establish targets• Describe solutions to implement• Provide incentives• Get out of the way and periodically check results

Toyota Kata Management Focus on how solutions are developed
<ul style="list-style-type: none">• Establish targets• Develop, via practice with coaching, people's capability to develop their own solutions... ...by having people practice a way of working like the Improvement Kata



THE DOOR IS OPEN!

To a new way of managing



We like to talk about our outcomes, our inventions, and tend to overlook the day-to-day enterprise of the steps that get us there; the successive target conditions and all that iteration.

When you realize that progress arises from accumulation of steps across the organization, it makes great sense to develop the capability of everyone in the organization to do focused, systematic continuous improvement on their processes.

Developing people involves challenging people. But just issuing challenges isn't enough. It would be disrespectful to do that without also teaching a systematic, common means - a kata - for developing solutions and meeting challenges.

So this is not about respect for people in order to be nice. It's a kind of respect for people -- for developing and using everyone's capabilities -- that's necessary for us to collectively achieve what we need to achieve.

COACHING EVERY DAY

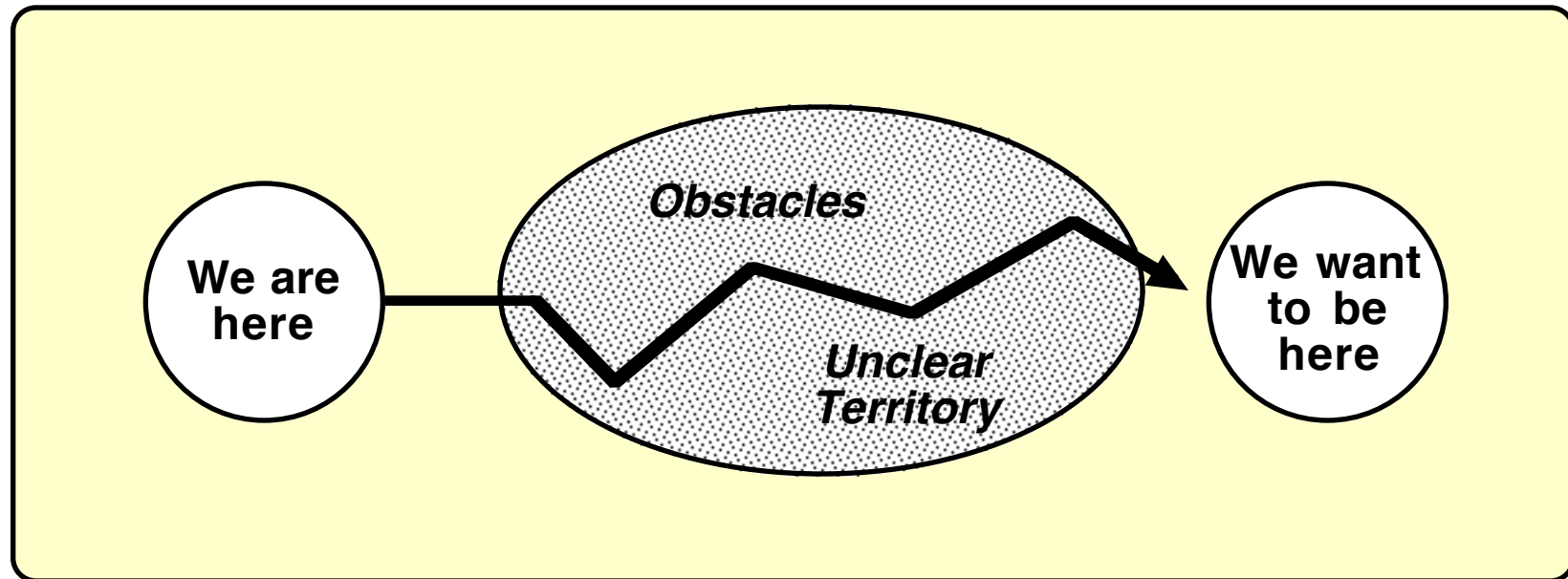
To get people across an organization to systematically and scientifically work on improvement every day requires **teaching the skills behind the solution.**

And for that to happen their managers need to practice and learn those skills too. You can't coach a skill that you haven't done yourself.



WHERE DO YOU & YOUR TEAM WANT TO BE NEXT?

What challenges are you trying to meet,
and what's your Kata for getting there?



Thank you to Prof. Jeff Liker, Gerd Aulinger, Jon Miller and John Shook
for their critique and input on this SlideShare

LEARN MORE

The 16-minute video on the next page takes a deeper look at why the concept of “Lean” needs to evolve



<https://www.youtube.com/watch?v=amK8pOT-rsg>

Also available on the IK/CK YouTube Channel