

A photograph of a person's legs from the knees down, wearing dark shorts and brown sandals. The person is standing on a rocky, gravelly path in a desert landscape. In the background, there are green bushes, cacti, and a clear blue sky. The text is overlaid on the image.

Jeffrey K. Liker and James K. Franz

*The Toyota Way to  
Continuous  
Improvement*

McGraw-Hill, New  
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Would it surprise you to hear that in our collective visits to literally hundreds of companies in the last 10 years, we have never seen honest-to-goodness continuous improvement outside of Toyota. p 1





What continuous improvement means: it does not mean that the company values only small, incremental changes and avoids fundamental innovation. It does mean being committed to the ideal of improving continuously in every part of the organization. p2

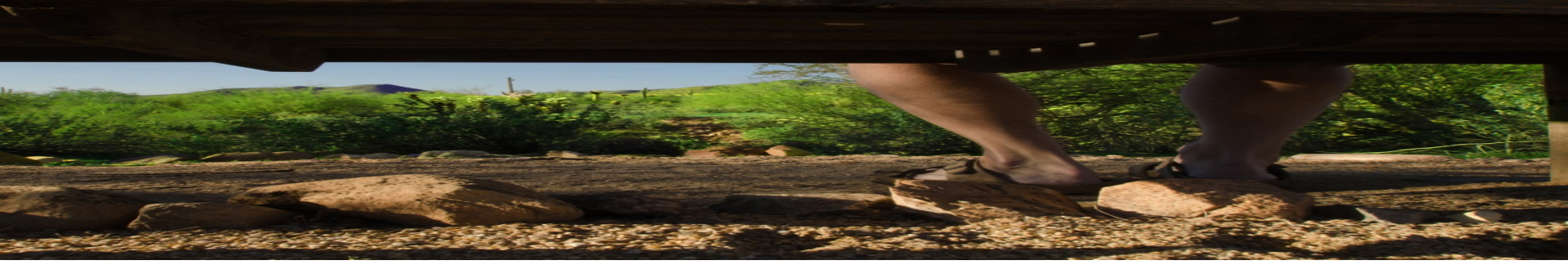


The only hope of seriously marching toward the ideal of continuous improvement is to have passionate executives leading the charge. They are simply not there in very many organizations. p3



It is more useful to define excellence as a pursuit rather than an absolute value. If we improve, we're closer to excellence than we were before.

p6



There is a feeling of intense energy focused on getting better.

p9





(Lean) is a pursuit of perfection  
by constantly eliminating waste  
through problem solving.

p12



Problem solving, which is different from the connotation of firefighting. In firefighting, we are running around putting our finger in the dike and hoping that the dam will not collapse. In true problem solving, we are deeply trying to understand the root cause of the problem so that we can ultimately prevent the problem from occurring again.

p12





Senior management, who think in simple mechanistic, cause-and-effect terms, believing that they will get results by using rewards and punishments to pressure the system.

p13



The most important thing is how your own people develop their ability to lead continuous improvement...In many organizations that we work with, something happens that derails the process. That something always involves the lack of commitment by senior management.

p15



Continuous improvement is more than a buzzword. It is a necessity if you truly want sustainable improvement.

p19





Companies that think that tough, single-minded executives can, through brute force...drive the organization to achieve...will never understand real excellence.

p20



Continuous improvement  
requires continuous innovators  
everywhere all the time.

p21



We all see process improvement and people development as two sides of the same coin in organizations...developing people to achieve challenging goals through a clearly defined improvement process and, in so doing, stretching themselves to become better people.

p23





It is not really a controlled experiment with an experimental group and a matched control group, but it is a test of a hypothesis that we formulated in the plan stage.

p29



The term countermeasure is important because it suggests the provisional nature of any action to counter the unwanted variability. Toyota does not believe that a countermeasure is the solution; rather, it is the measure that is currently being tested.

p30



Continuous improvement =  
continuous learning.

p30





Yokoten is a term in Japanese that means that during the sharing of a “better” practice, the environment into which the new idea is to be adopted must be understood, or the idea is not likely to succeed.

p31



The idea of copying “lean solutions,” even from Toyota, is completely alien to the Toyota way of thinking. They want each plant to be aware of successful practices in other plants...and consider how these ideas might be useful. But simply copying would be inappropriate and kill kaizen (continuous improvement. p33



Where is there waste that is contributing to the gap between the target and the current condition?..then seek to understand the root cause of this waste. p34





The starting point is to clarify the problem versus the ideal state. Defining the ideal state is a critical step...very few problem solving processes explicitly call for identifying the ideal state as a point of comparison. p35-36



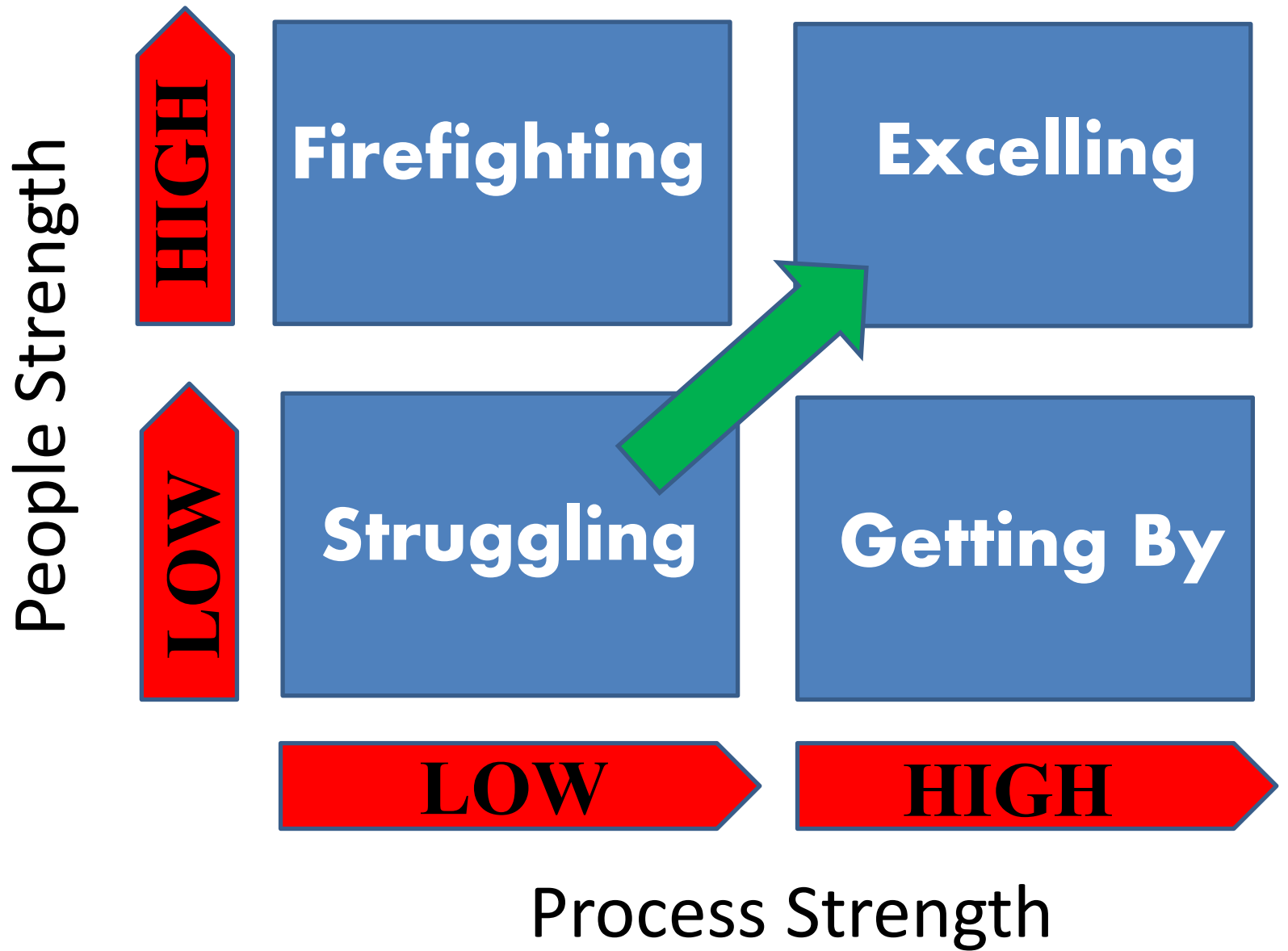
When organizations lack a coherent vision and instead focus on the short term, they tend to gravitate to an “action” bias, where it doesn’t really matter if what you’re doing is going to benefit the organization in the long term; rather, it matters that people are “getting things done.” p37



Planning for an experiment,  
checking, and adjusting based  
on the outcomes of a particular  
action are nonexistent.

p37





“The search for excellence requires both exceptional people and great processes. Some companies have neither and are simply struggling to get by. More typically, a company that has been around for awhile has succeeded on the backs of some exceptional people who have prevailed in spite of poorly organized processes...We know of companies with very strong engineering departments that have developed well-designed processes but see people who operate them as a necessary evil. People are interchangeable parts, and there is relatively little investment in developing them...Only companies with excellent processes *and* excellent people will truly excel.” Liker and Franz, p41



We have learned from a number of similarly bad experiences that isolated process improvement projects have very limited benefit if they are not tied to a broader purpose.

p46





Process improvement at Toyota always has the dual objectives of getting business results and developing people.

p46



The sensi (mentor) knew that there would always be problems, and if Yuri (the student) solved this one superficially, he would solve all of them superficially, and the errors would keep compounding.

p50



he (the student) had a rush of deep satisfaction that he could not have achieved if he had been told what to do.

p51





People are responsible for  
innovation –it does not come  
from computers or from lean.

p52



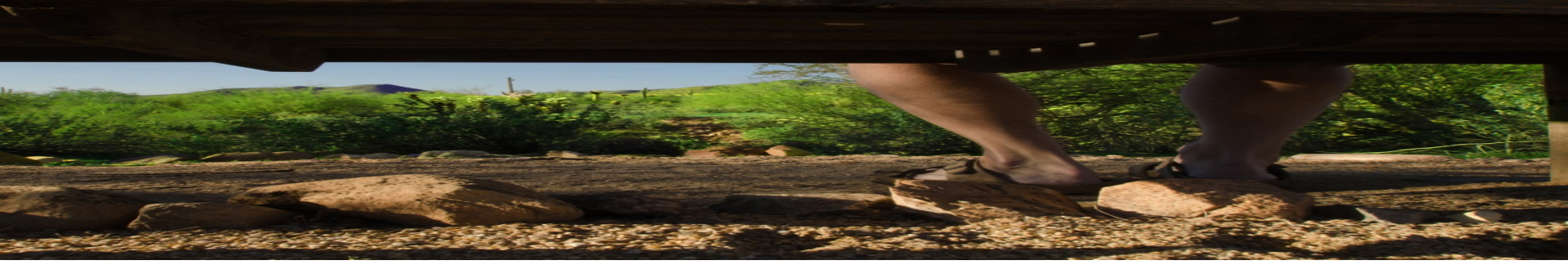
Many small steps will eventually lead you to the big innovation if you are persistent.

p53



Since people are one of the easiest costs to control, the company focused on reducing head count. End of story. Who was motivated by this vision? Surely the people who lost their job were not. Those who were left behind were motivated in a negative way – that is, by the fear that they might be next.

p58



There is a good deal of research evidence to suggest that people are motivated by a positive vision to a much greater degree than by a localized objective with no apparent purpose, or by general fear...the way to inspire people is to sell them on a positive vision that is more than money.

p59





## Toyota's Mission

1. Contribute to customers, society, and local communities.
2. Contribute to team members and partners.
3. Contributing to the growth and health of Toyota.

From a Toyota perspective, profits are an indication that what Toyota does is valued by society.



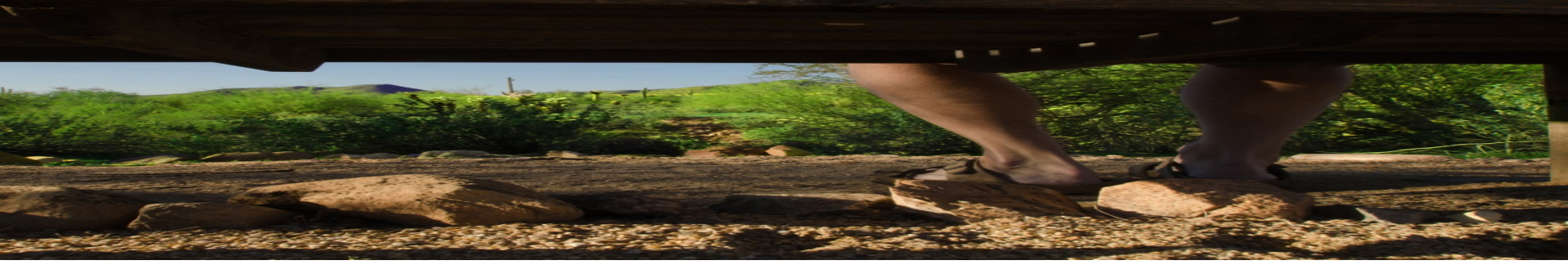
Toyota is a house with two pillars: respect for people and continuous improvement.

p61



Challenge is not a single race where you reach the finish line and you are done, but is more like an endless obstacle course where you are constantly working to get better, and quitting at any point means that you lose the race.

p61



Kaizen. This is a passion for constantly finding ways to improve every inch of the company toward perfection. Good enough is never good enough.

p61





Genchi. Go and see to deeply understand...The Toyota leader must be a part of the team, working in the process and getting dirty improving the process directly.

p62



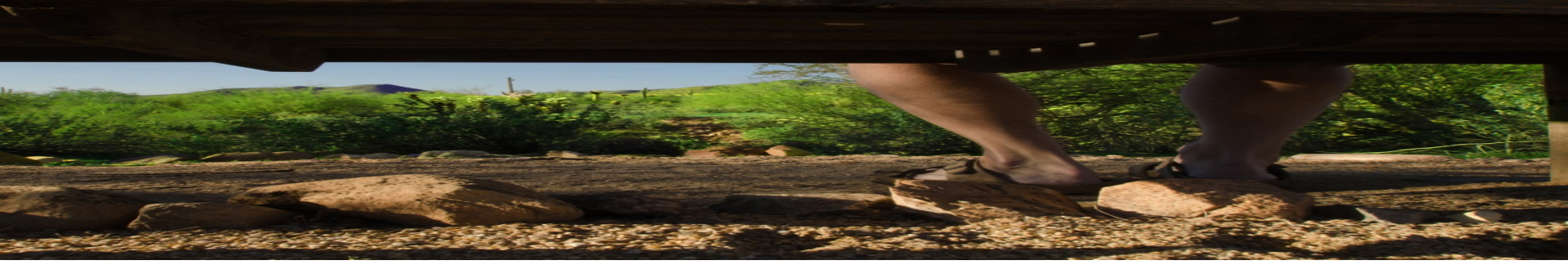
If we are adding waste we are  
on the wrong path.

p63



If a person is not being challenged and learning, she is not being respected. Simply being polite to people is not enough. When the leader is doing the thinking for everyone, that is disrespectful. When people are expected to carry out tasks in a prescribed mindless way and are not asked for ideas for improvement, that is a violation of the human right to grow and develop.

p63



At Toyota, people are painfully aware that the company is far from perfect and will never achieve perfection, but that does not stop them from trying. In fact, the gap between the actual and the ideal is what motivates continuous improvement. p64





Constant reflection relative to clear and measurable objectives is the engine that drives continuous improvement. p65



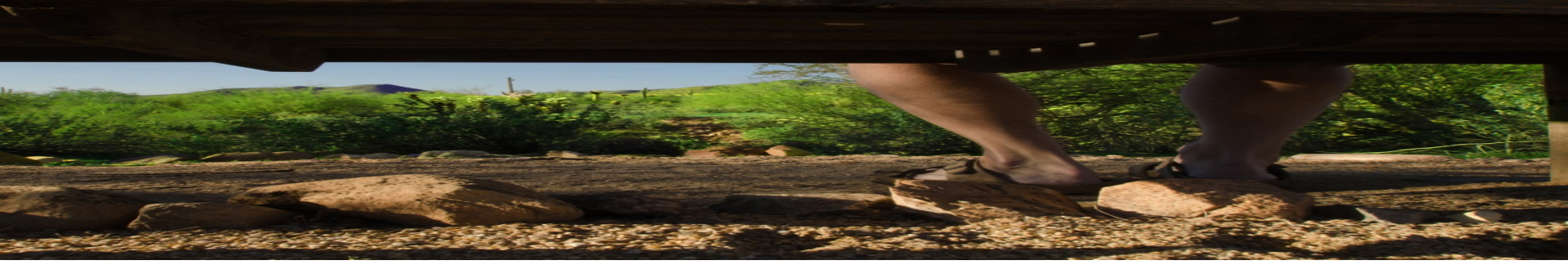
Pressuring people to get better results out of a process that is not well designed. It does not work very well!

p66



The trick...is to develop well-worn mental circuits not for solutions, but for how to develop solutions.

p68



What people are working on and when should be clear, simple and visual. They should be able to walk you to the actual workplace, perhaps refer to documentation on the wall, and easily explain what they are working on.

p69





As we try ideas, some will fail,  
but we still learn something  
important from each thing we  
try.

p71



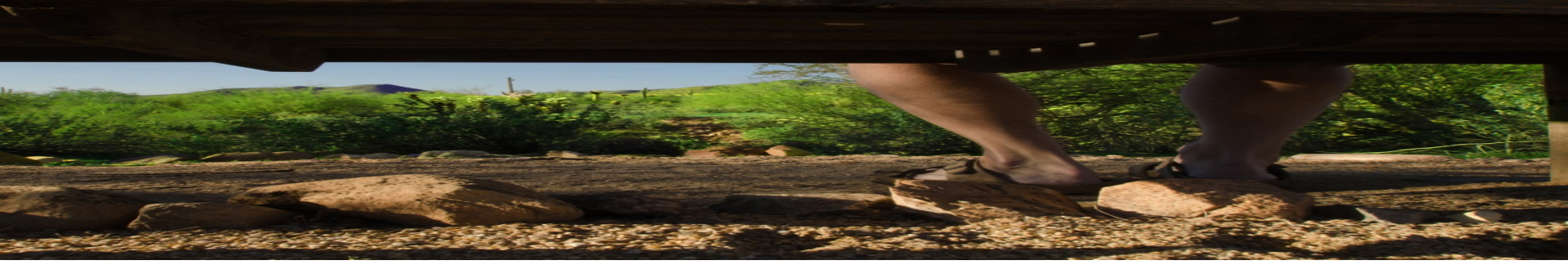
a loop that takes months is too big to grasp, and feedback is too slow.

p71



When we change thinking, we  
will change behavior.

p71



It is not uncommon to find workers in many companies spending 40 or 50 percent of their time doing value-added work, with the rest being waste.

p81





If you reward productivity, do not expect top quality or safety.

p82



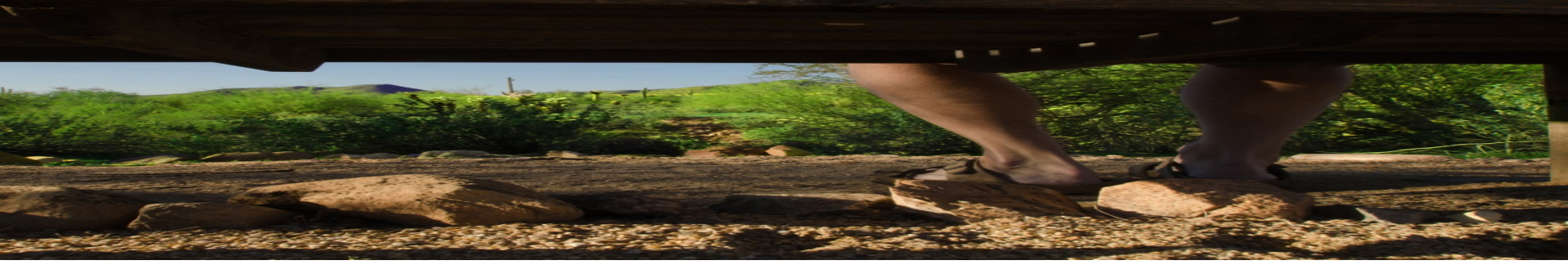
A lean system is one in which waste is made visible every day, and there is pressure from the process for people to fix the problems.

p83



In machine thinking...people follow the “one best way” of working as specified by managers and engineers, and are discouraged from experimenting with their own methods – they stop thinking.

p83



To keep the positive energy of improvement alive and growing within the work group takes leadership. So Toyota works very hard to continually develop leaders who are capable of leading continuous improvement.

p89





You can judge the effectiveness of the leader by...whether there is active problem solving leading to personal growth of team members.

p90



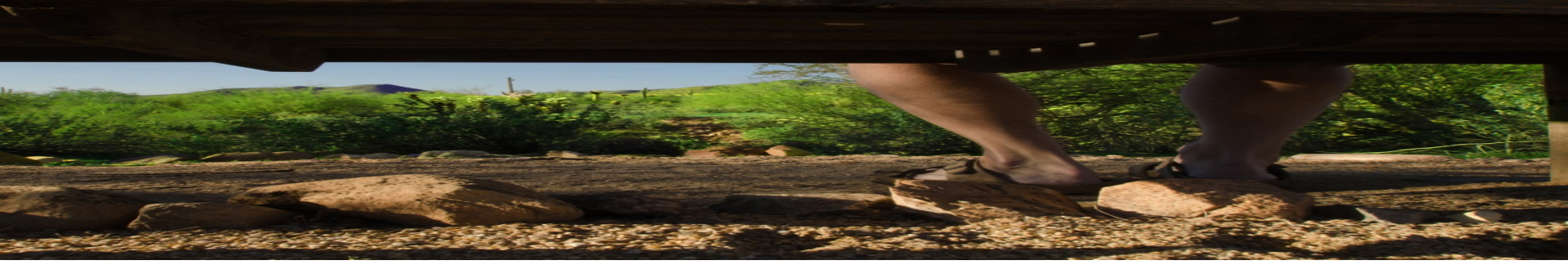
The problem in a traditional organization is that there are few systems to support the leaders. They are constantly in a firefighting mode.

p91



The purpose is to have a short time frame for comparing what actually happens with what we had planned, so that people can tell how they are doing in real time.

p92



Almost anything is easier than whipping highly educated and proud engineers into shape, overcoming decades of poor communication, poor coordination, and low expectations. It requires change management at its finest.

p101





All managers...go on regular  
“waste walks.”

p131



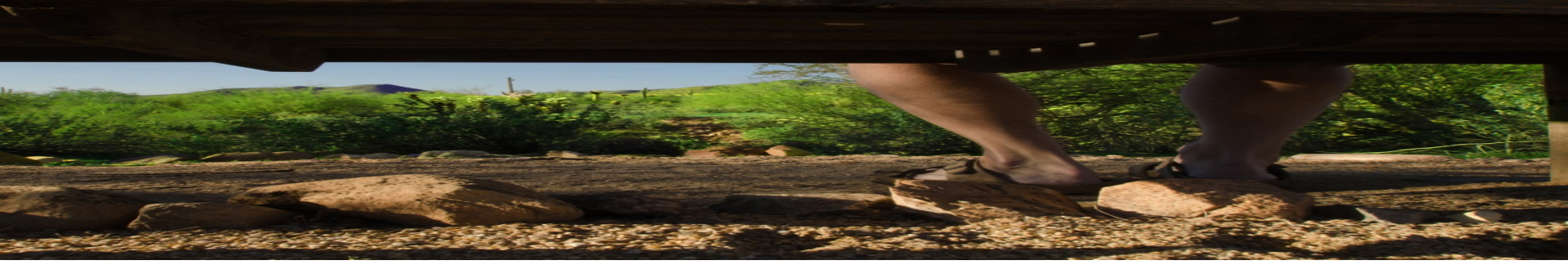
Continuous improvement is  
when all your people are solving  
problems every day.

p171



A quick count of companies that I have worked with over the past 25 years exceeds 100. Without exception, the few that were truly transformed were the companies that had senior executives on site and actively involved.

p172



Every time there is a problem,  
there is a perfect opportunity  
for a manager to develop her  
people.

p173





As often happens, the team members skipped over the understanding of the problem and started firing off ideas about how they could start fixing things.

p193



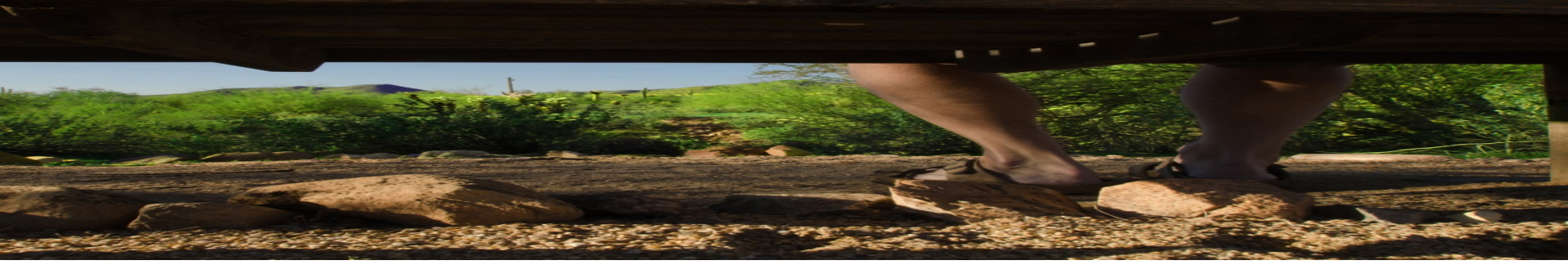
Everyone was keen to hit the metrics and truly believed that he was doing the right thing.

p196



It was clear that the leadership team hadn't spent a lot of time understanding the total system; instead, they were experts on their individual parts.

p199



A trial is worth a thousand  
opinions.

p203





There were five drill rigs on the site, and each was a different make and model, with different performance characteristics. Apparently, when they were purchased, over time, the corporate procurement department had gone for the lowest-cost units.

p207



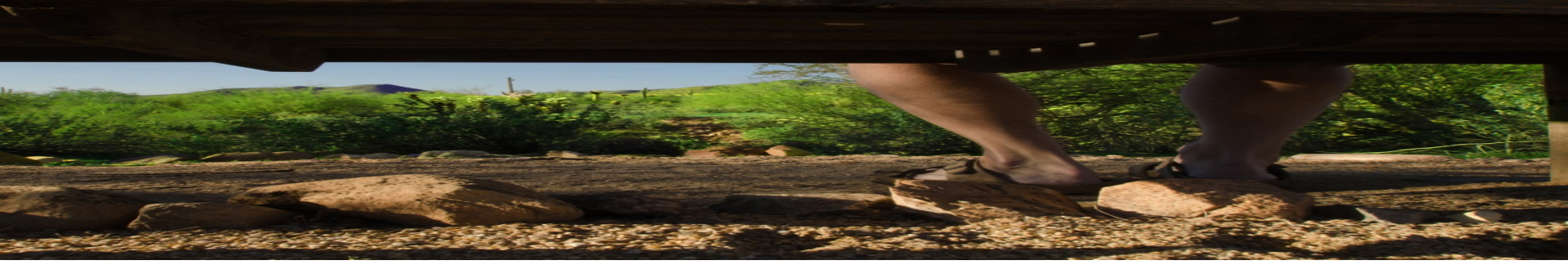
We preach tons, tons, and tons every day to every crew, and now we're surprised that's what they're doing.

p212



Let's be honest, what we think  
is a problem might be only a  
symptom of the true root cause.

p213



the attempt to identify the root causes of long-standing issues and in trying counter measures to deal with them was definitely a morale booster.

p218





This company, like most others, had many initiatives running concurrently that required scarce resources to launch and sustain.

p219



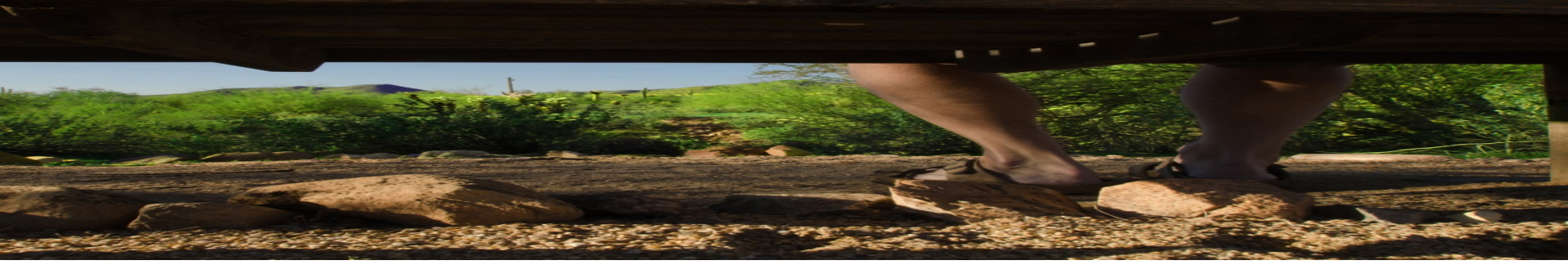
The alignment of the various groups was very poor and that some groups could, and did, succeed at the expense of others and the company in general.

p219



Many times, when root causes were uncovered, they were dismissed because they ran counter to tribal knowledge or “years of experience.”

p219



Problems need to be explicitly  
named and dealt with one by  
one.

p219





Standards abound in medical labs. We had notebooks full of standards. Unfortunately, that was often as far as the standards got – onto pages in notebooks.

p231



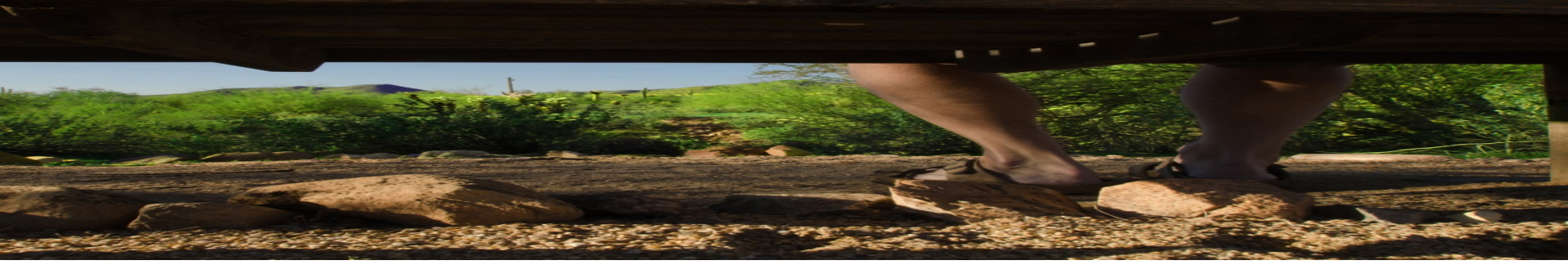
The scientific method...was a huge cultural change to start to apply this to daily problems rather than simply jumping to solutions.

p231



We used a very top-down approach to move the culture toward a bottom-up engagement.

p240



Our approach is not a slave to data collection and statistical analysis; rather, it uses data and direct observation for root-cause analysis and to assess interventions.

p240





The aha! for me was the uphill battle that was required to train the leaders that they had a new job. They had been leaders for 20-some years, and now I was telling them that their new job was to work on the system every day.

p243



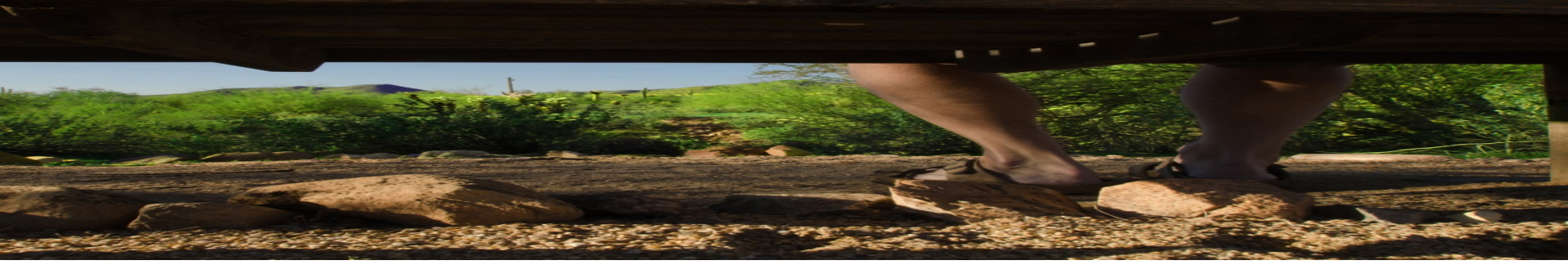
There is no need for external benchmarks in a true lean culture. You are your own benchmark, and what you did yesterday can be done better tomorrow.

p248



Without a problem-solving culture...we were the proverbial drowning person. All that the workers could do...was get angry and accept the frustration...or blame others.

p249



We could see that we were our own worst enemy, creating 89 percent of the defects or rework ourselves.

p249





People always want to blame someone else for their ills. We reiterate that it's the process, not the people.

p255



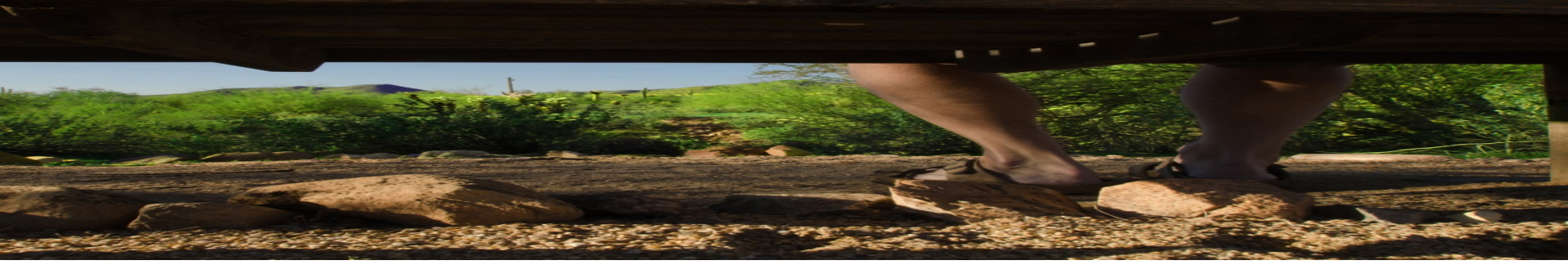
I marveled that incredibly smart professionals were impeded daily by even more incredibly broken processes.

p265



Every process seemed to become bogged down in paperwork, and each new regulation created additional work for staff members.

p269



I learned the meaning of “in your face” problem solving. Unless the problems are “in your face,” they tend to get ignored or pushed out to another day.

p272





The point for the leader is that when bad news is brought up, you cannot react negatively, or you will inevitably lose the trust of people when it comes to bringing up any further bad news.

p304



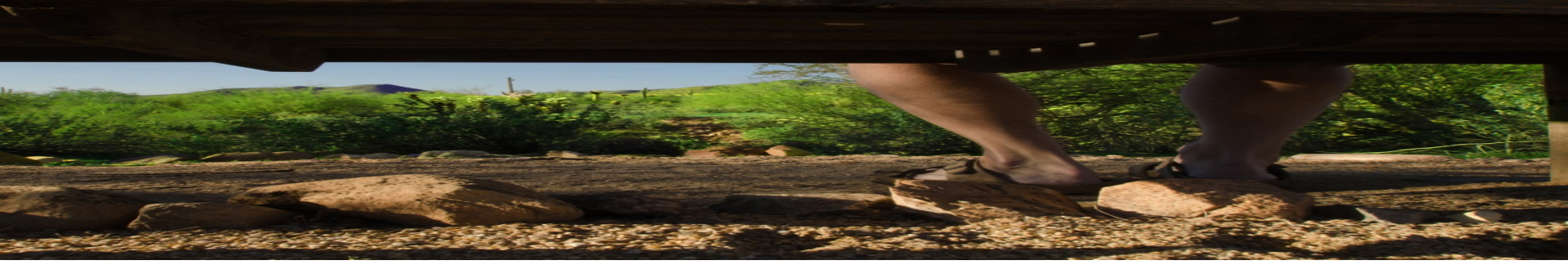
At Honda, there were 99 critical comments for every positive comment – this was simply a part of the culture.

p305



The manager canvassed the machinists to help them identify the waste and frustrations they had on the shop floor. Then they prioritized the list and started chipping away at these issues.

p332



As the area continued to run,  
more and more problems were  
brought to the surface.

p366





Apparently, listening to the people who do the work is not a widespread skill in traditional organizations.

p376



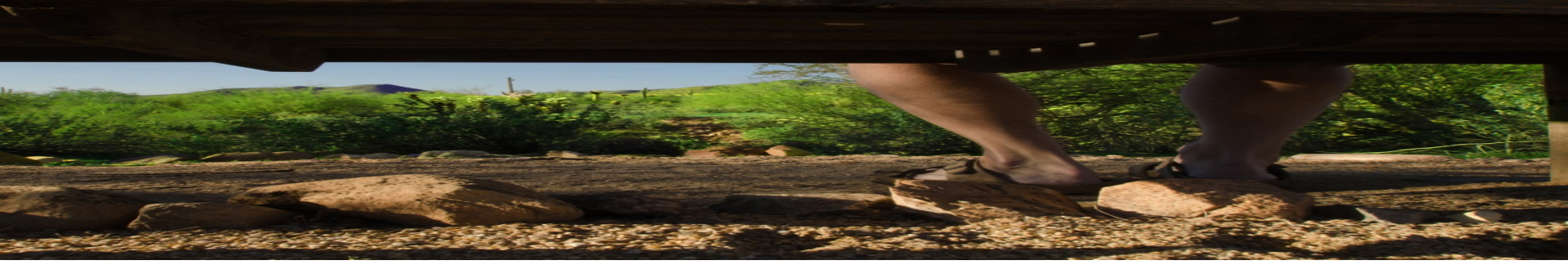
At Toyota...managers are considered “masters” at developing their subordinates, who are apprentices.

p379



Studies have found that experts in various fields take 10 years to reach a high level of performance, with thousands of hours of deep practice in that time...most companies will have moved onto a different program before they reach their 10-year anniversary.

p386-387



The dirty little secret is that the more waste you take out of a system, the more work it takes to maintain the system at that high level of performance.

p391





What is the net present value of highly developed, engaged people who are continually improving processes over the next 10 years? We have not seen anyone even attempt to calculate this.

p417



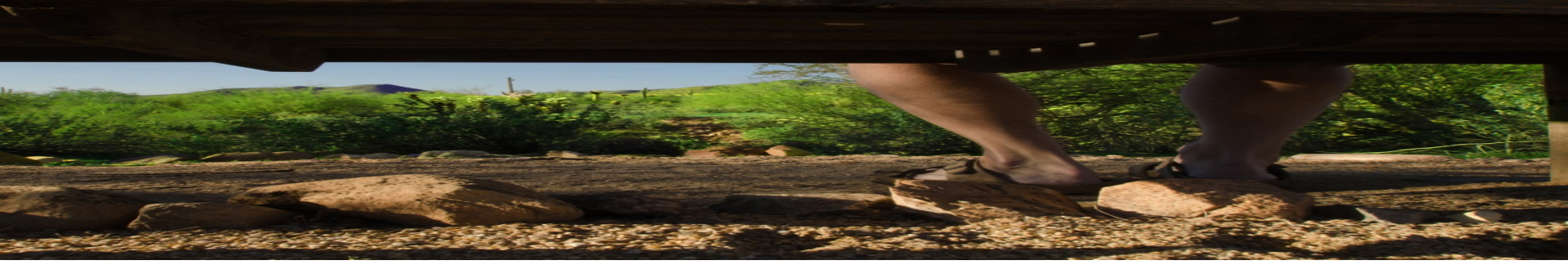
mindless replication of a best practice can actually lower organizational performance.

p421



We have never experienced a  
successful bottom-up  
transformation of an  
organization.

p421



At Toyota, the leaders can come across as challenging bosses, not mean or destructive, but tough in the same way that your best coach or teacher was tough.

p423





The goal is to continue to progress toward excellence, and when we fail, pick ourselves up and rededicate ourselves.

p429