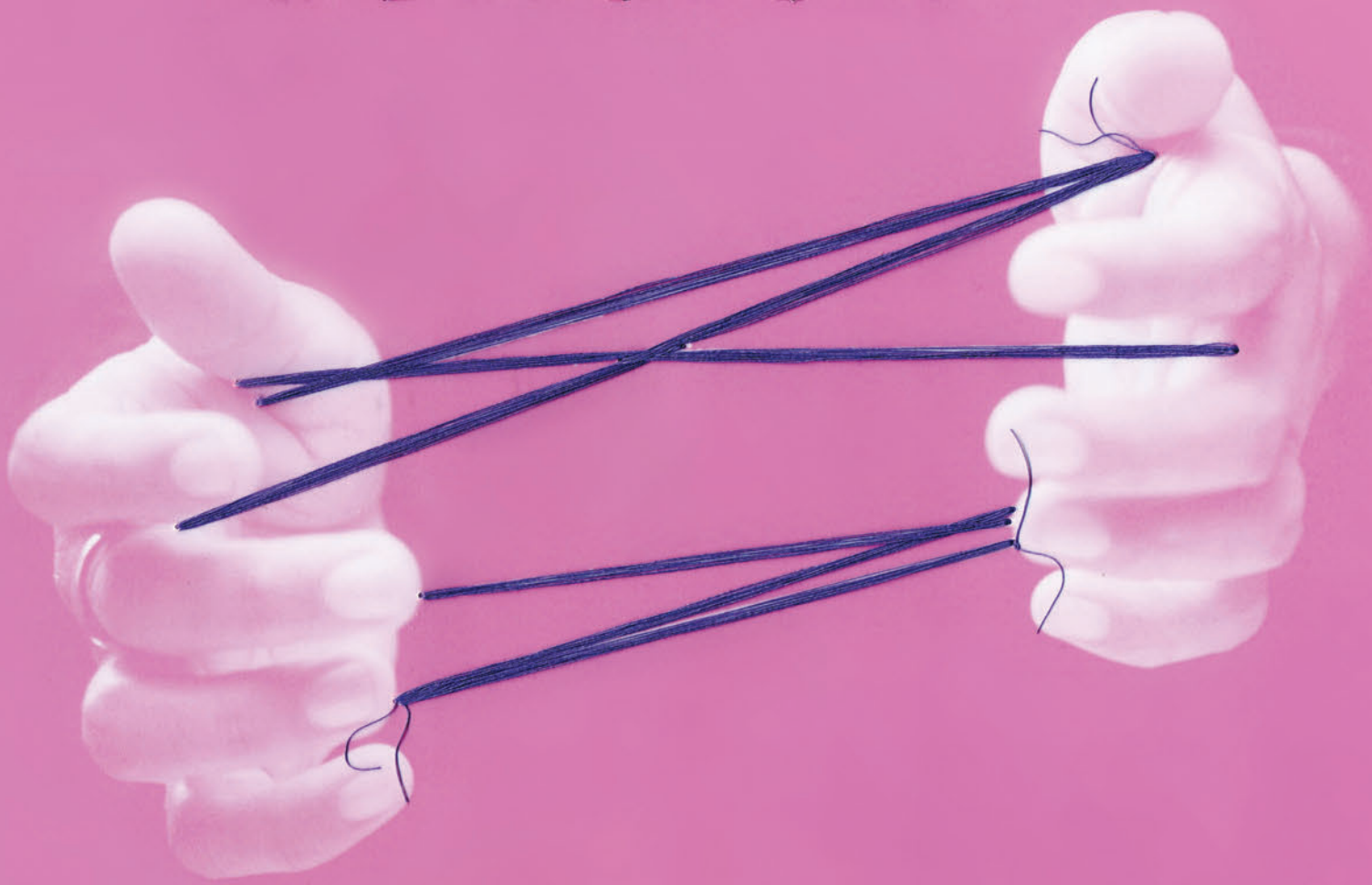
FROM CONFLICT TO BALANCE :

Mastering Creative Tension



From Conflict to Balance:

Mastering Creative Tension

Innovative thinkers hold the tension between conflicting goals in their minds and use it as creative fuel.

By Matthew May

GREAT INNOVATION IS OFTEN BORN of an ability to harmonize opposing tensions. Like the pressure to avoid failure and the need to take risks; or the demands of getting results quickly and the freedom to search for 'the best way'. Unfortunately, all-too-often in business, the artful balancing of opposing tensions goes by the wayside, and compromises are made that, in the end, serve to sub-optimize efforts to create value.

During my tenure at **Toyota**, I learned about the pursuit of *kyosei*, or 'balanced harmony', as a means of mastering the creative tensions that arise from an approach that sets daunting challenges that are in direct competition or conflict with each other in order to drive new thinking.

Much has been written about 'stretch goals', and their ability to spur creativity. Many times, however, managers set what appear to be good stretch goals, only to discover that they do not produce the hoped-for innovative thinking. One common reason for this is that the goals were in fact *not enough* of a stretch.

When I ask executives how they define 'stretch', I commonly hear 'about a five to ten per cent increment in improvement'. The fact is, that is not enough, because it often just translates to people working harder and longer. A 25 per cent improvement — while audacious and arduous — can rarely be met simply by sweating more: it literally demands new thinking and rethinking.

Many executives are afraid to set such a high bar, for fear that some other area of their business will be compromised. While that is a very real danger, there is a technique that prevents compromise: intentional goal conflict, which I refer to as 'dynamic tension'. Two cases cut from the annals of innovation at Toyota will illustrate how it works.

Too Many Moving Parts

At the turn of the new millennium, Toyota's service parts and accessories business was booming. But times weren't all that good at its North American Parts Organization (NAPO). It had just come off a difficult expansion effort, moving from a domestic procurement operation essentially dedicated to Japan, to a global supply chain sourcing parts from 600 different suppliers around the world. Launch of the second of two major parts-stocking hubs was coming up in 18 months. A change in senior management was made, which added another dimension to an organization in transition.

Toyota appointed **Jane Beseda**, a successful executive from Toyota Financial Services, to take NAPO to the next level of performance. Upon her arrival, she saw a good parts operation able to fill 98 per cent of its dealer orders within 24 hours — no easy feat with 20 million Toyotas on the road at the time. But she also saw a sophisticated supply chain with rising costs and increasingly high customer requirements in spite of the new facilities and added capability meant to do just the opposite.

As she made her way across the country visiting each regional parts operation, Beseda saw warehouse capacity being strained by over three months' supply of inventory worth over $350 million, made up of over 200,000 part numbers for nearly 30 Toyota models. She saw the effects of global coverage through local production—procuring and supplying global distributors in radically different markets with widely varying regulations was difficult to manage well.

She concluded that NAPO was an enormously complex organization run by tremendously talented people, but that they weren't working together as well as they could. She set three daunting challenges:

1. $100 million in distribution cost savings;
2. $100 million of inventory removed from the supply chain; and
3. 50 per cent improvement in customer service (ratings by dealers).

Beseda didn't know much about the parts business; but she didn't need to. She knew plenty about business, people and organizations. She knew how to manage and motivate, so she knew

The more aggressive targets actually engaged people's brains in new ways and forced them to rethink and redesign processes.

the program would foster transformation by forcing collaboration, cooperation and communication across functional silos. The goals simply couldn't be met otherwise. She also knew she couldn't dictate solutions, and that a new structure and system for planning was required, one that let the ideas spring up and take root.

Beseda stunned her 80 or so senior managers by telling them she wanted these goals met in three years. To her mind, this was the perfect stretch because it was enough time to move the needle. Less than three years would have been entirely impossible, and hence demotivating; more than three and the vision would be too distant, and hence disengaging. She named her effort, appropriately, Stretch Goals. The focus would be bilateral: externally on customers, internally on costs. There would be no more business as usual.

Among her senior staff, as cries of "Impossible!" rang out, Beseda held firm, making it abundantly clear that there would be no compromise. Putting their heads together, the managers arrived at ten key objectives that needed to be met in order to accomplish the mission:

1. Reduce inventory by 50 per cent
2. Decrease backorders by 50 per cent
3. Reduce packaging expenses by 50 per cent
4. Reduce damage by 50 per cent
5. Increase throughput by 25 per cent
6. Improve safety/decrease errors by 50 per cent
7. Increase space utilization by 25 per cent
8. Decrease landfill usage by 25 per cent
9. Reduce freight costs by 25 per cent
10. Decrease lead time by 40 per cent

These targets were audacious, to say the least. Such a high bar had never been attempted by the division. But then something amazing happened: the more aggressive targets actually engaged people's brains in new ways and forced them to rethink and redesign processes.

The cries of "Impossible!" were reminiscent of those uttered some 15 years earlier by the nearly 5,000 designers and engineers involved in then-president **Eiji Toyoda**'s plan to unseat **BMW** and **Mercedes** from their firmly entrenched position at the top of the luxury automobile market in the United States.

Dramatic Destinations

In 1987, the chief engineer for the secret project that would become the first Lexus, **Ichiro Suzuki**, issued the challenge of producing a luxury performance sedan that would beat the best luxury sedans — BMW 735i and Mercedes 420SEL — across the board in every measurable category: comfort, styling, performance, handling, cabin noise, aerodynamics, weight, and fuel efficiency.

Suzuki's specific goals were every bit as 'stretch' as Beseda's:

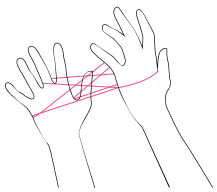
1. Top speed of 155 miles per hour (735i and 420SEL topped out at under 140)
2. Fuel rating of 22.5 miles per gallon (735i and 420SEL got less than 20)
3. Cabin noise level of 58 decibels at 60 mph (735i and 420SEL were over 60)
4. Aerodynamic drag of 0.29 or less (735i and 420SEL were over 0.32)
5. Curb weight 80 pounds less than the 3,880-pound 735i (which was lighter than the 420SEL)

Legend has it that the product engineering chief, **Akira Takahashi**, told Suzuki to his face that he was out of his mind, refusing to go along with the plan. Each of the goals was too high individually, but together? *Impossible*. Takahashi's argument made sense: no Toyota car at the time could go faster than 110 mph except the Supra, which at its top end of 130 nearly became airborne. Suzuki planted himself in Takahashi's office, refusing to leave until Takahashi agreed to try. To this day, Suzuki, now retired, will smile and repeat: impossible.

Impossible. Out of your mind. These are the words of breakthrough; and they are fighting words when uttered to the right people. That's because the right people will hold on to the creative tension between clearly conflicting objectives. They will leverage the scarcity of resources. They will reframe constraints to be the very source of innovation. And they will find a way to get the job done without compromising the 'dramatic destination'.

The notion of a *dramatic destination* is an important one. Taking $100 million out of costs and inventory while simultaneously improving customer satisfaction in just three years (in the case of NAPO) was a dramatic destination. Beating the best luxury performance sedans on the planet when you've never built one before — essentially building the best car in the world — was most certainly a dramatic destination.

Simply put, dramatic destinations demand different thinking. But what both Jane Beseda and Ichiro Suzuki knew was that dramatic destinations must be broken down into targets that people can *own* and focus on.



The Art of Conflict

Jane Beseda saw the ultimate mission of the NAPO Stretch Goals initiative as *optimizing the entire supply chain*. But attempting to do that simply by issuing some big, aggressive goals ignores the nuances of the system, irrespective of how well-intentioned or well-aligned they may be. There are inherent conflicts existing between and among the various natural functions of any supply chain. The real beauty of Beseda's strategy was in recognizing those tensions, calling attention to them, and capitalizing on them to power new thinking and drive cross-group collaboration.

The secret lies in a hidden dimension to how the goals were set. The ultimate mission of the initiative was to optimize the entire supply chain, but inherent conflicts exist between and among the various functions of any supply chain. The real art of the strategy was in recognizing those tensions, calling attention to them, and capitalizing on them to power new thinking and drive collaboration.

At first glance, the list of ten objectives seems like a simple master wish list. But take a second look. See if you can spot the tension points. Here's a hint. Take a look at the first two targets, inventory and backorders. In most supply chains, these are opposite sides of the same coin: increase inventory, and backorders drop; decrease it, and backorders generally rise.

If you look back at all ten objectives, you'll see that they are really five pairs of conflicting goals. This simple graphic helps visualize the pairings:

Inventory Reduction (-50%) v. Backorders (-50%)	**Packaging Expenses (-50%) v. Damage (-50%)**	**Throughput (+25%) v. Errors/ Safety (-50%)**	**Space Utilization (+25%) v. Landfill (-25%) (-40%)**	**Freight Costs (-25%) v. Lead Time**

Beseda's dramatic destination, broken down into aggressive milemarkers, called for bold and creative solutions. The five pairs of conflicting targets could not be achieved simultaneously without compromise with anything less than truly innovative thinking.

The issues facing Lexus designers and engineers were even more conflicted and complex than those facing NAPO. Designing a vehicle, though, is often an act of the very compromise Beseda had rejected. Interestingly, Ichiro Suzuki's war cry was *naukatsu*, which means 'never compromise'.

Recall Suzuki's goals: beat the best in every measurable category: comfort, styling, performance, handling, cabin noise, aerodynamics, weight, and fuel efficiency.

But...greater speed and acceleration conflicts directly with fuel efficiency, noise, and weight, because higher speed and acceleration requires a more powerful engine. A more powerful engine is a bigger and heavier engine, and so it makes more noise and consumes more fuel. A smooth, quiet ride conflicts directly with lower weight and better handling at high speed. Heavy, non-performance-oriented cars with beefier insulation and a softer suspension provide the smoother, quieter ride. Refined styling and high-speed stability conflict directly with aerodynamic drag; the more angled look of 1980s luxury cars provided greater stability because of the higher air friction. Suzuki demanded a V8 engine with a 4-liter displacement, something unheard of in a lightweight, fuel-efficient quiet luxury car.

What both Beseda and Suzuki realized early on was that the artful balance of clearly-conflicting constraints often requires fresh eyes, open minds, and a good dose of youthful, somewhat irreverent energy.

A Tale of Two 20-Somethings

Knowing she needed a talented project manager to bring her aspirations to life, Beseda selected **Thor Oxnard**, a young executive in strategic planning who had made his mark back in Japan at Toyota headquarters by successfully negotiating cross-manufacturer automotive contracts for a joint partnership between Toyota and **General Motors**.

Thor's first step was to set up a command central function to manage the whole process, the Project Management Office. Thor made the PMO a key strategic move designed to provide central coordination and monitoring of progress toward the targets. The next step was to move beyond concept. It was time for action, prioritization and measurement. The targets had to be data-driven and verifiable. Savings had to drop to the bottom line. Soft numbers wouldn't work.

Thor organized strategy sessions aimed at developing high-level initiatives addressing each target. A project agenda emerged, representing a unified approach. Suddenly, saving $100 million in three years seemed doable.

As the objectives were translated into real projects, teams and deadlines, inspiration began to seep into the once-skeptical senior management team, to the point that cries of "Impossible!" were replaced by chants of "$100 million; we can do it!" NAPO Vice President **Fletcher Davidson** even promised to do cart-

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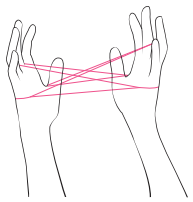
was reframed and seen as complementary.



wheels if the targets were met. Key performance indicators for each target were developed and agreed to. For example, damage reduction would be measured as pieces per million shipped and damage dollars as a percentage of sales. Baselines were set using previous hyphen year results.

Several months into the Stretch Goals initiative, some progress was being made. But something was missing. Changes were still functional, siloed. The kinds of moves you'd hope to see in an end-to-end transformation hadn't been made, or even attempted. Oxnard realized that the only way company-wide innovation would occur with enough impact to achieve the conflicting targets would be through the execution of cross-functional projects.

But project teams were struggling to coordinate work across boundaries using the traditional departmental planning approach. Oxnard needed a better mechanism. His solution: create mid-range plans using a Vertical-Horizontal-Vertical (V-H-V) planning process, involving three steps:

1. Vertical — each department would plan as it normally does within its functional silo;
2. Horizontal — representatives from each department would then gather to discuss and coordinate their plans in order to identify impacts on other areas and to request support; and
3. Vertical — local plans would be updated with new information based on other department actions, then published and circulated.

Projects in pursuit of dramatic destinations demand this kind of flexibility in execution. It's like sailing, in which you're at the mercy of changing winds and know you can't go in a straight line to get where you want to go. But what do you do when the wind dies?

Late in the game, the Lexus project stalled, and the project team got stuck on two key challenges. The first was fuel efficiency, which gave the team the most difficulty. There was a very serious practical consideration, which was avoiding the 'gas guzzler tax' of $1,000 per every car not rated at 22.5 miles per gallon or better. There was also a point of pride: to that point, no luxury car had avoided it, and Suzuki wanted Lexus to be the first to do so.

One effective way to boost a car's fuel efficiency is to reduce its coefficient of drag, or aerodynamic friction. A good way to do that is to emulate the shape of a teardrop: you raise the rear deck and lower the front end. The problem was that in the late 1980s, luxury styling was all about lines and angles, which aren't very aerodynamic. Shackled by that mental model, the designers and engineers simply hit an impasse.

The second challenge concerned the front-end design: nothing about it satisfied Suzuki. He rejected sketch after sketch, stubborn in his belief that styling, comfort, and performance could, and in this case must, coexist harmoniously in a car.

Nicknamed 'Dezi', **Akihiro Nagaya** was just 25 when Suzuki selected him to address these challenges. Suzuki had kept a watchful eye on the youngster, who in the four years before joining the Lexus team had demonstrated a flair for bold ideas. Suzuki knew Dezi could breathe new life into the design team, all of whose members were seasoned vets.

Dezi had a unique perspective on automobiles. Cars were, in his words, "moving sculpture." It was exactly the kind of thinking Suzuki was looking for in tackling the impossible constraints, and perspective needed to save the Lexus design. "I was asked to create a front end that would save the ass of the [Lexus] LS," Dezi would recall later. And save it he did. "Flow. I focused on flow," he said. To him, the transitions between the various elements suggested that each of these seemingly contradictory notions had to be seamless. The only alternative was to redefine luxury styling. The sketch depicted flowing lines with smooth transitions, without lines and angles. As he tells it, when he saw the sketch, Suzuki shouted, "This is it!"

Dezi's design helped get the team unstuck and opened the floodgates of creativity to allow solutions to begin to emerge. What had been seen as contradictions began to be reframed and seen as complementary. Aesthetics and aerodynamics could complement each other, for example, by fitting window glass and door handles into the metal itself, producing a cleaner look and better airflow. Sloping the rear window just enough to push air off the trunk and building a spoiler into the trunk lid to make the back end more stable enabled a sleeker profile.

In a reversal of conventional design wisdom, function began

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to follow form, and mechanical components were redesigned in dramatic fashion. The engine was cast almost entirely from aluminum — block, pistons, valve lifters, cam covers, everything — saving 120 pounds. The propeller shaft, originally in two parts connected by an angled knuckle — like most rear-wheel-drive cars at the time — was replaced by a perfectly straight one, enabling a nearly silent cabin.

Kyosei: Balanced Harmony

The V-H-V structure changed the NAPO culture. At one level, the organization became more adept at planning — listening to each other, communicating, respecting other ideas, and developing much more cohesive teams. At another level, NAPO started having fun. V-H-V meetings often ended in laughter, demonstrating camaraderie. Year-end celebrations were held with all associates at all locations to present achievements, with managers serving breakfast in chef hats. The original tension had been replaced by a balanced harmony. *Kyosei*.

The scene three years after Jane Beseda's Stretch Goals pronouncement was euphoric: a hotel conference room in Southern California filled to capacity, with an announcer's voice saying over the PA: "Three years ago NAPO was given a challenge they said couldn't be done." Lights flashed as Beseda and her leadership team ran through the crowd in true pro basketball fashion. The crowd was chanting, "Fletcher! Fletcher!" Davidson prepared to perform his promised cartwheel. **Pink Floyd**'s "Money" was booming as Beseda pulled a cord to unfurl a banner reading "Thanks a $100 million" and play money bills floated down like confetti. On each was Davidson doing a cartwheel. Not all of the stretch goals were met, but the team came close enough: $100 million in cost savings, $90 million taken out of inventory, and a 40 per cent improvement in customer satisfaction.

When the Lexus LS400 made its debut on September 1, 1989, it stunned the automotive world and set a new luxury standard. It was by all objective measures the best car the world had ever seen. The facts made history: in every category rated by *Car and Driver*, the LS400 trumped the BMW 735i and Mercedes 420SEL. The Lexus LS400 was five decibels quieter, 120 pounds lighter, 17 miles per hour faster, got more than four more miles to the gallon, and retailed for $30,000 less than the BMW 735i. It then took just two years for Lexus to displace Mercedes-Benz and BMW, which had been entrenched for generations, as the top-selling luxury import nameplate in America.

Soon after, upon tearing down two LS400s given to **General Motors** headquarters by a southern California auto dealer, Cadillac engineers in Detroit concluded that the Lexus car "could not possibly be built."

In closing

The examples of NAPO and Lexus illustrate why, as a manager, you need your team to believe that their reach can — and should — exceed their grasp. By intentionally inducing a sense of imbalance, you can spur creativity and innovation. That's because innovative thinkers thrive on seemingly impossible targets. Holding the tension between conflicting goals in their minds, they use it as creative fuel. And in today's world there are few things more powerful than that. ***RM***

Matthew May is the founder of Edit Innovation and the author of four books, most recently *The Laws of Subtraction: 6 Simple Rules for Winning in the Age of Excess Everything* (McGraw Hill, 2012).