In 1943 future management legend Peter Drucker received a special invitation from General Motors to solve a mystery. At the time, GM was one of America's biggest and most respected companies; Drucker was determined to discover the secret behind its success. Little did he know that his investigation would unlock powers that were to influence industry for generations to come.

Drucker set about his task at GM much the way his grandmother would have. "She spoke to everybody the same way," Drucker later recalled in his autobiography, "in the same pleasant friendly voice, and with the same old-fashioned courtesy."

Drucker's grandmother was a big influence on him; she was the kind of person who wasn't afraid to rock the boat, but always did so with gentleness and kindness. The same could be said of Drucker, who was pleasant and thorough, but at the same time unafraid to ask deep and probing questions.

Drucker's inquisitiveness made his approach to understanding companies unique. Most researchers studying corporations focused their attention outside the firm. They'd look, for example, at what kind of marketing campaigns worked or what types of salesmen yielded the best results. In doing so, they missed a big part of the story: what happened inside the company to make it succeed or fail. This was the question that fascinated Drucker. He studied management in order to understand what really made businesses tick. The idea of analyzing management was completely foreign to many of Drucker's contemporaries. They assumed that management was a no-brainer: managers tell people what to do, and they do it. Where others saw a given, Drucker saw an intricate web of human interactions. How, he wondered, did power structure, political environment, information flow, decisionmaking, and managerial autonomy contribute to a company's success?

For Drucker, the GM assignment was a gold mine. Granted unrestricted access to the inner workings of one of the leading companies of the day, Drucker spent eighteen months gaining a rare in-depth understanding of the business. He was thorough, he was patient, and he was just as interested in people as he was in data. By the time he was finished, he had studied virtually every aspect of the business and understood GM as well as, if not better than, most of its top management. Most

important, Drucker had developed a robust theory to explain GM's success.

Drucker was very well liked within the company. His questions were those of an astute observer who was truly intrigued by the company and had a genuine desire to learn more about it. So taken with him was GM that, unbeknownst to him at the time, the company seriously considered offering Drucker a top-level executive management job.

It seemed like a marriage made in heaven. That is, until Drucker came out with the results of his study. When his landmark work, *Concept of the Corporation*, was published, GM was furious. The company's top management viewed Drucker's book as a complete and utter betrayal. What was Drucker's betrayal of GM? In his book, he suggested that the company alter its strategy so as to benefit from becoming even more decentralized.

Drucker never intended to offend GM and was surprised by its reaction. In his mind, GM was a great company. In his study, Drucker even compared GM to the U.S. government, using the term "federal decentralization" to describe it. "In Federal Decentralization," he said, "a company is organized in a number of autonomous businesses." Just as the U.S. government ceded power to the states, GM gave autonomy to its divisions.

But GM's divisions weren't exactly the arms of a starfish; GM was more of a hybrid organization. The company had headquarters, a hierarchical structure, and centralized control. Unlike a purely spiderlike organization, however, GM delegated a high degree of power to its division managers. Each manager was empowered to make critical decisions while the executive team took on more of a catalyst role. The executive team primarily

made suggestions about strategy and gently coaxed the division leaders. At GM, Drucker explained, "it is the right as well as the duty of every managerial employee to criticize a central management decision which he considers mistaken or ill-advised . . . such criticism is not only not penalized; it is encouraged as a sign of initiative and of an active interest in the business. It is always taken seriously and given real consideration."

Yes, the executive team had veto power over all decisions and ultimately had the final say, but these powers were rarely invoked. In addition to giving division managers autonomy, GM also ensured that each of them became independently wealthy. As a result, GM division managers came to work not out of dependence on a paycheck but to pursue a passion. This passion was the core of GM's ideology: we are here to excel.

Drucker argued that this decentralization was key to the success of GM. It freed top management to focus on larger issues, he explained; GM utilized decentralization as a way of efficiently distributing power around the organization. So why did GM get upset with Drucker? Because along with his praise he suggested that GM continue innovating and adopt more starfish concepts—for example, by asking customers what worked for them and what didn't and incorporating that feedback into corporate strategy (basically, empowering the customer, much as Sun, IBM, and Intuit would do decades later).

But GM's response was: Why should we change? We have something that works. Look, we're at the top of our industry—how dare you come in and make suggestions?

Compare GM's reaction with what happened when Drucker went to Japan, where his theories were listened to intently. Drucker later recalled, "I taught them that communication is to

be upward if it is to work at all. . . . I taught them that top management is a function and a responsibility rather than a rank and a privilege." In other words, he taught the Japanese to embrace the hybrid organization.

Over the years, the Japanese continued to innovate, while companies like GM stuck with more traditional command-and-control management. The decision to remain stationary would end up costing GM. Let's fast-forward several decades and visit the assembly lines of GM and its Japanese competitor, Toyota.

A typical GM factory in the 1980s evoked every stereotype we have of an assembly line. Each worker was responsible for a single task, and the hierarchy was rigid and clear. If an employee made a mistake or detected a problem, he could stop the line, whereupon a loud alarm would sound. Workers would rush to solve the specific problem and get the line going again. But as many drivers could attest, the cars GM produced in the early 1980s were prone to mechanical failure. The system was producing cars that were at best okay, but definitely not great.

The Toyota assembly line was drastically different. Employees were regarded as members of a team, and each team member was considered an important contributor and given a high level of autonomy. What happened if an employee stopped the line? A pleasant "ding-dong" would sound and teams would carefully study what was going on, in an effort to continually improve the process. Line workers were constantly encouraged to make suggestions.

Take a moment and imagine that you're the head of Toyota. How many worker suggestions would you implement? Assuming that the majority of suggestions are well meaning but erroneous—15 percent? Playing the odds that half of the suggestions are likely

to be helpful—50 percent? Try 100 percent. Just like Wikipedia edits, each and every suggestion made by a Toyota line worker was implemented. In decentralized fashion, teams functioned like a circle, and whatever ideas employees had for innovation were put into practice. And in Wikipedia fashion, if someone's suggestion proved counterproductive, another employee would inevitably make a suggestion to undo the previous suggestion.

This was an entirely different way of dealing with employees. Rather than regarding line workers as drones who had to follow directions and be kept in line, Toyota viewed its employees as key assets. Imagine the line workers' feeling of empowerment. Their opinions mattered. But Toyota didn't stop there. It also flattened its management hierarchy and equalized the pay scale. Now everyone was in it together. The net result of these innovations was that the cars Toyota produced were of dramatically higher quality than the vehicles that left a GM plant.

Experts tried to explain why Toyota plants were able to produce a high-quality product and foster efficient teamwork while GM's were not. Some speculated that GM's problems arose from the growing power of unions. Others, including Drucker, attributed the Japanese success to cultural differences. The Japanese, he said, had "come to accept my position that the end of business is not 'to make money.' " Drucker then got philosophical: "The Confucian concept, which the West shares, assumes that the purpose of learning is to qualify oneself for a new, different, and bigger job . . . within a certain period of time the student reaches a plateau of proficiency, where he then stays forever. The Japanese concept may be called the 'Zen approach.' The purpose of learning is self-improvement. It qualifies a man to do his present task with continually wider vision, continually increasing competence, and continually rising demands on himself."

"Culture-schmulture," the Japanese retorted. The differences had nothing to do with unions, cultures, or Confucian and Zen philosophy. To prove its point, Toyota asserted that, with its help, GM could achieve the same levels of quality.

GM was intrigued. To see if Toyota was just blowing smoke, GM proposed that the Japanese take over management of its Fremont, California, auto plant, one of the company's lowest-producing plants. The quality of the vehicles that rolled out of the plant was awful, the union had a terrible relationship with management—who even carried guns for protection—and daily absenteeism was at a staggering 20 percent. The plant was so bad, in fact, that GM had decided to close it down.

GM's challenge to the Japanese was: here you go, let's see what you can do with the Fremont plant—but, oh, by the way, you have to hire the same union force. No problem, replied Toyota. The two companies reopened the Fremont plant, renaming it New United Motors Manufacturing, Inc. (NUMMI).

Toyota management implemented the same procedures that had worked so well in Japan and brought hybrid organization principles to Fremont. "Our team dictates what we do and how we do it. Our group leader comes by about a half-hour per week," recalled one employee. "I feel that the team members are what's most important. We can function without management."

The results were staggering. Within three years, the new plant had become one of GM's most efficient. NUMMI's productivity, in fact, was 60 percent higher than at comparable GM plants. Along with productivity, quality dramatically improved.

The story of Jamie Hresko, a production manager at GM's Buick City plant, says it all. Hresko decided to conduct an experiment. There was a way, he figured, to muck up the NUMMI process; after all, they couldn't be *that* perfect.

Hresko managed to get hired as a line worker at NUMMI. Don't give me special treatment, he told the managers, and don't tell anyone I'm a manager at a different plant. Once hired, Hresko conducted a one-man sabotage campaign. For a month, he slacked off and broke the rules, doing things like coming in late from lunch or creating a safety hazard by stacking parts on the floor. In each case, he wasn't reprimanded by management; instead, his team members admonished him. Hresko could hardly believe it. The union workers, once the thorn in GM's side, now wanted to make sure that the plant was running smoothly. This was hardly the same plant that GM had decided to close down a few years earlier.

Now, if parts of this story sound familiar, it's because the NUMMI plant was the inspiration for the movie *Gung Ho*. Except that the movie doesn't quite capture the real reason for the plant's success. It suggests that the improvement came about through rigid Japanese control. In the film, the American workers learn to stop slacking off, the Japanese learn to take it easy once in a while, and everyone lives happily ever after.

But NUMMI's success wasn't about rigid management. Nor was it about cultural differences or union politics. While good management and alignment of incentives did have something to do with it, the success really stemmed from Toyota's continual pursuit of the decentralized "sweet spot."

Let's revisit GM's reaction in the 1940s when Drucker came out with his book. Basically, GM was unwilling to change. It

was a hybrid organization, but it refused to explore strategies for becoming more decentralized. Why mess with a good thing? reasoned GM's management. Toyota, on the other hand, continually strove to find the ideal balance between starfish and spider systems.

The decentralized sweet spot is the point along the centralized-decentralized continuum that yields the best competitive position. In a way, finding the sweet spot is like Goldilocks eating the various bowls of porridge: this one is too hot, this one is too cold, but this one is just right.

Let's take another look at the online auction industry. As we saw, around the same time that eBay was founded, another auction house entered the market. Onsale was funded by some of the top venture capitalist firms in the Silicon Valley and was the darling of the investment community.

Onsale began by selling new and refurbished computers. The company would either buy computers directly from the manufacturer and resell them or act as an intermediary, allowing vendors to sell directly to consumers and charging a commission. At the time, Onsale's business model made a lot of sense. There was a supply of computers that typically sold for dramatically reduced prices, and there was a demand from customers who wanted to get a good deal on electronics.

There were challenges in managing inventory and quality control, but they were manageable. Onsale held and sold inventory like other vendors, but rather than charging a set price, it allowed consumers to bid against one another. Onsale managed the inventory and offered between 500 and 1,200 items on any given day. It was a centralized solution that took a small step toward decentralization: bidders were encouraged to form a com-

munity by posting playful taunts as they bid against one another. The Onsale concept worked fairly well and had good potential. Indeed, as it gained popularity, Onsale became the biggest and most successful online auction house, and its stock price skyrocketed.

But when people started using eBay, the market dramatically shifted. Compared to Onsale's small step, eBay took a giant leap toward decentralization by allowing anyone to sell and purchase items. Why would users select from a list of a few hundred items offered by a handful of vendors when they could select among thousands of items offered by thousands of people on eBay?

Onsale began losing market share and soon went out of business. The decentralized system that allowed eBay users to auction items directly to each other was simply superior—eBay had landed on the sweet spot. Compared with eBay, craigslist was too decentralized: because it allowed anyone to post and didn't offer user ratings, the site wasn't conducive to the sale and purchase of expensive items, at least not sight unseen. But eBay has managed to strike the balance between the spider and starfish organizations. Unlike Onsale, it doesn't house inventory from vendors. Unlike craigslist, however, it doesn't depend on trust alone. User ratings on eBay create a combination of trust and security.

If eBay were to become more decentralized, it would lose customers. For example, if eBay didn't verify users' e-mail addresses and allowed anybody and everybody to post anonymously, there wouldn't be as much accountability. Less accountability would translate into diminished trust, and users would become more wary of buying items sight unseen. Likewise, if eBay were to become more centralized—say, by verifying the quality of the

goods sold—commissions would become higher, and it would no longer be economical to sell on eBay. Again, this would drive away customers and reduce revenues. The company would lose market share if it moved further toward either centralization or decentralization.

Toyota occupied the decentralized sweet spot in the automotive industry. Had it centralized its assembly line to mirror GM's, it would have taken power away from employees and reduced vehicle quality. But on the other hand, had Toyota decentralized too far—doing away with structure and controls and, say, letting each circle work on whatever car it felt like—the company would have had a mess on its hands. Decentralization brings out creativity, but it also creates variance. One Toyota circle might very well make a wonderful automobile, while another might produce a junker.

The sweet spot that Toyota found has enough decentralization for creativity, but sufficient structure and controls to ensure consistency.

It seems that Drucker intuitively understood the concept of the decentralized sweet spot. Just because you're on the sweet spot now (as General Motors was in the 1940s) doesn't mean it won't shift in the future. In some cases, like the online auction industry, the sweet spot seems to be fairly stable. In other cases, however, it is much more mercurial and must continually be pursued.

Let's take another look at the music industry. For centuries, the industry was decentralized, being nothing more than the performances of individual musicians. When the phonograph was invented, all of a sudden people could make a lot more money by

running a record label than by being an individual artist. The sweet spot had shifted toward the centralized end of the spectrum.

As more record labels came onto the scene, there was even more money to be made by consolidating them into mega-labels. Economies of scale came into play: the larger the asset base and distribution network, the lower the cost per asset. (Economies of scale work in favor of Wal-Mart, for example, because it's more efficient to run a host of large stores that sell everything than it is for small, independently owned stores to sell a narrow class of goods.) For instance, a number of small record labels must each carry the costs of maintaining a recording studio and supporting talent scouts, producers, a legal team to draft contracts, and a marketing department to promote titles. But if the many small labels are aggregated into a single powerhouse, like Sony, redundancies can be eliminated because the company needs only one legal team, one marketing department, and so on.

Now, all was well and good for the record labels until Napster came along and made peer-to-peer music-sharing possible, dramatically shifting the sweet spot toward decentralization. In this new scenario, eMule was certainly too decentralized to be a profitable model—it produced no revenues, let alone profits. But the music labels were too centralized: they were losing money. This shift, however, also created opportunity. Just ask Apple, maker of the ubiquitous iPod. Apple realized that music listeners were getting increasingly frustrated with hearing a song on the radio and going out and purchasing it on CD, only to find out that the rest of the album was garbage. Although many were happy to illegally download songs for free, others were hesitant to pirate music and were willing instead to pay for a specific

song, just not the whole album. That's where Apple's online music store, iTunes, came in: iTunes began selling individual songs for ninety-nine cents each, and it was all perfectly legal. Apple understood that the record labels were too centralized, but that the illegal offerings of services like eMule posed too big a risk for many consumers.

Apple also realized that users wanted to share content with one another. It therefore encouraged users to "podcast," or broadcast their own programming to other users—anything from a cooking show to a question-and-answer session with Senator John Edwards. Apple has proven that when centralized and decentralized forces take each other on—in this case, the record labels and the music-swapping services—there's money to be made from adopting the middle-ground approach.

Apple may be sitting pretty on the sweet spot today, but that's no guarantee that the sweet spot won't shift tomorrow. It's almost like a tug-of-war: the forces of centralization and decentralization continue to pull the sweet spot to and fro. But understanding that the sweet spot can move and predicting these tectonic shifts are two very different things.

In the music industry, for example, could the labels have predicted that the sweet spot was about to shift so suddenly and dramatically? The answer turns out to be a surprising yes—if only they had asked the right questions. The record labels had long known that people like to copy music. More broadly, we have a natural human tendency to share information. That's why keeping government and corporate secrets is so difficult—people are apt to gab. Once the peer-to-peer technology was out there, the writing was on the wall.

People's propensity to share music is precisely why the labels have fought for antipiracy laws and tried to block new technologies, like the CD burner, that make copying music easier. For a while, these measures sorta kinda worked. Yeah, people burned CDs for friends, but the amount of piracy was fairly contained. Anyone who tried to sell massive numbers of bootleg copies in the United States faced stiff penalties.

The Internet made sharing songs a cinch. But still, anyone who openly enabled music-swapping—like Napster, for example—was exposed to lawsuits. People's only option was to become more anonymous, using services like eMule. Up against the wall, people turned to decentralized options. Starfish organizations are wonderful places for those who want to freely share information, and better yet, they can easily serve as hosts to anonymous sharing. Together, these two forces, anonymity and free information flow, made the industry more decentralized and shifted the sweet spot.

In any industry that's based on information—whether it's music, software, or telephones—these forces pull the sweet spot toward decentralization. Apache, eMule, and Skype all deliver information more efficiently and cheaply than their centralized counterparts. Likewise, if people are doing something illegal or potentially embarrassing—in other words, if there's a reason for them to seek anonymity—the sweet spot is likely to move toward decentralization as well. It was to preserve anonymity that AA, the Animal Liberation Front, eMule, and al Qaeda became decentralized.

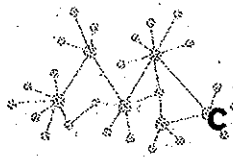
But at the same time, other forces nudge the sweet spot toward centralization. Music lovers have gravitated to iTunes because it offers security and accountability. When you download a song

from eMule, you just never know—it could be fine, or it could contain a malicious virus. But when you download a song from iTunes, you can rest assured that it's both legal and virus-free. When you buy something off craigslist, you hope and trust that the seller is honest, but you don't know for sure. On eBay, however, you can depend on user ratings, and you know that members aren't completely anonymous. When it comes to money, people want even more accountability—they use PayPal, for example, because it's a secure method of transferring funds online.

The more important security and accountability become in a given industry, the more likely it is that the sweet spot will tend toward centralization. People are especially prone to seek security when a service is unfamiliar. For several years, for example, Yahoo was king of the search world. At the time, the Web was new to most people, and they wanted a secure and accountable source of information. Yahoo delivered just that. It launched a central portal where users could get their stock quotes, play games, or check the weather, and it hired editors to create search categories and catalog a massive number of Web pages. You could trust Yahoo. If you were looking for a Web site about Hawaii, you'd get a pretty good match, and you'd avoid sites with unsavory content—unless, of course, that's what you were looking for. Yahoo was there to hold your hand.

But as the Web grew and users became more sophisticated, Google's new, more decentralized approach was very appealing. The site's search algorithms, which depend on user input rather than on editorial experts, produced more relevant results. Google replaced Yahoo's expert editors with a decentralized solution. The sweet spot in the search industry is still fluid, and it's hard to tell whether it's heading in one direction or the other. It's possi-

ble that a new entrant will offer a more decentralized solution (say, an eMule-esque solution to search), or that someone will create a hybrid between Wikipedia and Google. Or Google may keep its place atop the sweet spot. It's hard to tell where the decentralized winds will blow, but it's always wise to chase that sometimes elusive sweet spot.



CHAPTER 9

The New World