

Dr. Elon & Mr. Musk: Life Inside Tesla's Production Hell With Ego Maniac Sociopath Elon Musk

The young Tesla engineer was excited. Ecstatic, in fact. It was a Saturday in October 2017, and he was working at the Gigafactory, Tesla's enormous battery manufacturing plant in Nevada. Over the previous year, he had been living out of a suitcase, putting in 13-hour days, seven days a week. This was his first real job. And now a colleague had tracked him down to say that Elon Musk—[Elon Musk](#)!—needed his personal help.

The previous year, Musk had made an audacious announcement: His company, which was known—fetishized, actually—for its luxurious electric vehicles, would soon begin manufacturing a new sedan that it planned to sell for just \$35,000, putting it within reach of the middle class. The [Model 3](#), Tesla hoped, would transform the auto industry by proving that a mass-produced, emissions-free vehicle was not only feasible but profitable. If successful, the vehicle would help end humanity's addiction to fossil fuels, slow climate change, and show that ingenuity and ambition could accomplish nearly anything. Within a year of that announcement, however, work on the car was behind schedule. There were problems in battery manufacturing, parts construction, development of assembly

lines. Tesla's goal was to build 5,000 vehicles a week; recently the company had been producing roughly three cars a day. Many inside the [Gigafactory](#)—not to mention at the Tesla headquarters in Palo Alto and the assembly factory in Fremont, California—had been working hard for months, trying to get things on track.

Musk was spending the weekend in the Gigafactory, attempting to discover why machines weren't functioning, why parts kept misaligning, why the software was crashing. Musk had demanded that his factories be automated as much as possible. But among the consequences of this extreme roboticization were delays and malfunctions. [Tesla](#) had spent more than \$1 billion building the Gigafactory, and almost nothing was going as planned.

At about 10 o'clock on Saturday evening, an angry Musk was examining one of the production line's mechanized modules, trying to figure out what was wrong, when the young, excited engineer was brought over to assist him.

"Hey, buddy, this doesn't work!" Musk shouted at the engineer, according to someone who heard the conversation. "Did you do this?"

The engineer was taken aback. He had never met Musk before. Musk didn't even know the engineer's name. The young man wasn't certain what, exactly, Musk was asking him, or why he sounded so angry.

"You mean, program the robot?" the engineer said. "Or design that tool?"

“Did you fucking do this?” Musk asked him.

“I’m not sure what you’re referring to?” the engineer replied apologetically.

“You’re a fucking idiot!” Musk shouted back. “Get the fuck out and don’t come back!”

The young engineer climbed over a low safety barrier and walked away. He was bewildered by what had just happened. The entire conversation had lasted less than a minute. A few moments later, his manager came over to say that he had been fired on Musk’s orders, according to two people with knowledge of the situation. The engineer was shocked. He’d been working so hard. He was set to get a review from his manager the next week, and had been hearing only positive things. Instead, two days later, he signed his separation papers.

On a Wednesday morning a few weeks later, Musk returned to the Gigafactory on his private plane. Tesla had started firing hundreds of other employees for performance reasons—more than 700 would eventually be let go. Musk was scheduled to talk to the plant’s workers, to inspire them to push through what Musk had forecast would be a “manufacturing hell.” The Gigafactory needed widespread fixes; there was no way the plant would produce 5,000 batteries a week anytime soon.

When he arrived, Musk began marching through the factory. He walked along the assembly line, red-faced and urgent, interrogating workers he encountered, telling them that at Tesla excellence was a passing grade, and they were failing; that they weren’t smart enough to be working on these problems; that

they were endangering the company, according to someone who observed him.

Employees knew about such rampages. Sometimes Musk would terminate people; other times he would simply intimidate them. One manager had a name for these outbursts—Elon’s rage firings—and had forbidden subordinates from walking too close to Musk’s desk at the Gigafactory out of concern that a chance encounter, an unexpected question answered incorrectly, might endanger a career.

After Musk had patrolled the factory floor for a while, executives pulled him into a conference room. “I think we can fix this,” one of his top lieutenants, Jon McNeill, told him, according to someone who heard the conversation. McNeill tried to calm Musk down, and repeated a proverb he had once heard: *No man comes up with a good idea when being chased by a tiger*. At that moment, Musk was the tiger. (A spokesperson for McNeill said he did not want to participate in this story.)

Musk, though, had other concerns. “What’s that smell?” he asked. Everyone went silent. They knew Musk was so sensitive to odors that job candidates were told not to wear cologne or perfume when they met him. They had seen him become upset over small issues like this, had observed him attack executives for their incompetence and inabilities. One person explained that there were vats of liquid silicon nearby. When heated, it sometimes smelled like burning plastic.

These vapors were going to kill people, Musk said. They were going to kill him.

The group got back to solving the Gigafactory's problems. Eventually it was time for Musk to give his speech. He left the room and walked onto a makeshift stage. The Model 3 was always going to be difficult, he told workers. But it was turning out to be even harder than anyone anticipated. He thanked employees for their work—and then warned them that more was coming. Tesla had to have high standards to succeed. It was not a 9 to 5 company. People were already working hard; now Musk was implying they needed to do more. He was at turns complimentary, awkward, and intense. The Model 3 was a bet-the-company decision, he said. Everybody needed to work hard and smarter.

Then Musk walked off the stage. The remaining executives decamped to a conference room to continue working through a list of the Gigafactory's problems. Musk, according to one participant, was gone—on to the next task.

Eight months later, Tesla would announce that it had managed to hit its target and [produce 5,000 Model 3s](#) in one week. Three months after that, it would report profits of \$312 million, well beyond Wall Street's expectations. Musk seemed, once again, to have snatched victory from the maw of catastrophe, proving his critics wrong through ambition and sheer force of will. But the path to that triumph would be more turbulent than almost anyone anticipated. Over the past year, Musk has fascinated, delighted, and horrified his fans and detractors alike by attacking strangers [on Twitter](#), [berating analysts](#) on earnings calls, calling a man he had never met a pedophile, and, most consequentially, tweeting that he was considering taking Tesla private at \$420 a share with "[funding secured](#)," when in fact there was no such funding secured. That tweet would cause the

Securities and Exchange Commission to sue Musk [for securities fraud](#) and, in a settlement, to compel him to pay \$20 million and abandon his company's chairmanship. None of that, however, has chastened Musk, who tweeted in October that the tweet that cost him \$20 million was "worth it." The tiger was on the loose.

If it has been strange to watch Musk's wild ride via news reports and social media, it's been even weirder inside the company. Over the past six months I've communicated with dozens of current and former Tesla employees, from nearly every division. They describe a thrilling and tumultuous workplace, where talented engineers and designers have done some of their proudest work but where, as one former executive put it, "everyone in Tesla is in an abusive relationship with Elon." Almost all these employees spoke on the condition of anonymity because of nondisclosure agreements or fears of being sued or fired by Musk. (Even those with positive things to say asked for anonymity.) Most wanted the best for Tesla and said the recent profit report made them hopeful that the company is finally climbing onto firmer ground.

"I think we can fix this," one of Musk's top lieutenants, Jon McNeill, told him. McNeill tried to calm him down and repeated a proverb he had once heard: No man comes up with a good idea when being chased by a tiger.

But experience gives them pause. A large number of high-ranking executives have left in the past two years, and Tesla has stumbled over basic tasks like delivering its cars. Working at the firm has been an agony and ecstasy, some say—sometimes toggling between both extremes in a single day.

Tesla, which was given extensive summaries of the reporting in this article, including what took place during Musk's Gigafactory visits and the engineer's dismissal, said through a spokesperson that some aspects were "overly dramatized," "abbreviated," and "ultimately misleading anecdotes that completely lack essential context." The company added that "Elon cares very deeply about the people who work at his companies. That is why, although it is painful, he sometimes takes the difficult step of firing people who are underperforming and putting the success of the entire company" at risk. Tesla also noted that Musk was worried about the comfort and safety of workers when he complained about the vapors in the Gigafactory.

Tesla declined to make Musk, any board members, or any executives except the company's general counsel available for on-the-record interviews. WIRED did hear from an outside law firm representing Tesla and Musk, which objected to the reporting and how questions were being asked, and suggested that WIRED might be sued.

On the day in 2017 that Musk gave his speech at the Gigafactory, he was both despot and savior. There were grand pronouncements, searing interrogations, and a laserlike focus on doing what no one had accomplished before. His speech deflated some and inspired others. "That was a pretty typical Wednesday, actually," one senior executive told me. "That's what it was like until I quit."

Mike McQuade

Elon Musk didn't start Tesla. But he did, in the most important ways, create it. When Musk invested \$6.3 million in Tesla in 2004

and became the firm's chairman, he found a pulpit worthy of his ambitions. Soon he would become chief executive and turn Tesla as much into a cause as a company. "The overarching purpose of Tesla Motors (and the reason I am funding the company) is to help expedite the move from a mine-and-burn hydrocarbon economy toward a solar electric economy," Musk wrote in a 2006 document he called "The Secret Tesla Motors Master Plan." "We will not stop until every car on the road is electric," he said at one point. It was a lesson in his approach to life. "Optimism, pessimism, fuck that," he once told WIRED about [his other company, SpaceX](#). "We're going to make it happen. As God is my bloody witness, I'm hell-bent on making it work."

Silicon Valley was built on such audaciousness. Musk's story, in particular, has been embraced as proof that believing in the impossible can sometimes make it real. He was born in South Africa in 1971 and moved to Canada as soon as he completed high school. He didn't have much of a plan—he had only \$2,000 when he arrived—but after working odd jobs and enrolling in a local college he eventually made it to the University of Pennsylvania, where he studied economics and physics. After graduating, he founded a company with his brother and a friend and worked constantly, sometimes sleeping under his desk and showering at a local YMCA. They eventually sold their company, earning Musk \$22 million. That funded his next startup, which became [PayPal](#), a venture eBay bought for \$1.5 billion in 2002. Musk was fantastically rich at the age of 31. Such good fortune wasn't all that unusual in Silicon Valley in the late 1990s. "I could go and buy one of the islands in the Bahamas and, uh, turn it into my personal fiefdom," he told reporters in 1999 as they observed him taking delivery of a \$1 million McLaren F1 sports

car. “But I’m much more interested in trying to build and create a new company.” (Musk later crashed the car.)

These new companies of Musk’s imagination would not make ephemeral, digital chaff but, rather, reshape the physical world through struts, thrusters, rocket engines, and steel. Musk started SpaceX; bought Solar City, an alternative energy company; and created the Boring Company to dig a network of [high-speed transportation tunnels](#). But it was Tesla that first demonstrated his world-changing ambitions.

As a leader, Musk managed by example—by working hard, demanding perfection, thinking in unconventional ways, and insisting the inconceivable could be accomplished if it was simply reduced to logical steps. “He’s someone who empowers you to be better than you think you can be,” said Todd Maron, who was Tesla’s general counsel for five years until the company said earlier this month that he would be leaving. “He has extraordinarily high standards, and so he pushes you to be your absolute best.” Similar sentiments were expressed by other executives and managers. “He is the smartest person I have ever met,” said a former executive at Solar City. “I can’t tell you how many times I prepared a report for him and he asked a question that made us realize we were looking at the problem completely wrong.”

LEARN MORE

The WIRED Guide to [Self-Driving Cars](#)

Many Tesla executives have stories about how Musk reset their concept of the possible, but the classic tale is about retractable door handles. In the mid-2000s, the company was designing the [luxury Model S](#) when Musk insisted the car needed handles that would lie flush against its body. They would glide out, as if by magic, just as the owner reached the vehicle, by responding to a signal from an electronic key. "It was unanimous among the executive staff that the complex door handle idea was crazy," said a former executive. It required incredibly complicated engineering, and it solved a problem that no one else thought was actually a problem. But no matter how forcefully executives objected, Musk wouldn't yield. Even once the car was released, the handles sometimes proved troublesome. When *Consumer Reports* wanted to review a Model S in 2015, it had to postpone the analysis because "the fancy retractable door handles refused to let us in."

But Musk was right. Those door handles quickly became a signature feature. A flush handle is now standard on every new Tesla. "It creates this almost emotional connection with the car, this sense that you're part of the future," the former executive said. "And that's Elon's genius. He knows what people want before *they* know." This is the familiar pattern: Musk demands something impossible. Colleagues push back. Musk insists. And then innovation occurs at a speed hardly anyone thought possible. When *Consumer Reports* reviewed the Model S, it said the sedan "performed better in our tests than any other car ever has." More important, Tesla helped prod the rest of the auto industry to begin developing electric cars of their own. Today BMW, General Motors, Jaguar, and Nissan sell fully electric vehicles, and Audi, Mercedes-Benz, and Volkswagen, among others, say they'll soon release their own.

As CEO, Musk was often an emotional leader, colleagues say, sometimes tearing up in front of employees when overcome by frustrations or the importance of the firm's mission. He could also be socially awkward, prickly when others failed to show deference, defensive when corrected. To some he seemed to have a robotic lack of empathy and odd interpersonal mannerisms. "People used to tell me to hunch down lower in my seat during meetings," one former high-ranking executive told me. "Elon reacted better to people when he was sitting higher than them."

In Silicon Valley, people are allowed to be strange. In fact, they are often celebrated for it. At Tesla, Musk's oddness was accepted. He was, after all, the leader, the biggest stockholder, the visionary. But sometimes his impatience would turn into tirades. "We called it 'the idiot bit,'" a senior engineering executive told me. "If you said something wrong or made one mistake or rubbed him the wrong way, he would decide you're an idiot and there was nothing that could change his mind." Musk would openly deride employees in meetings, according to numerous sources, insulting their competence, bullying those who had failed to perform, demoting people on the spot. Musk could afford to fire, because a long list of qualified people wanted to work at Tesla. "It's one of the few companies that is genuinely changing the world," a former executive said. "And everyone was so smart."

"He is the smartest person I have ever met," said a former executive. "I can't tell you how many times ... he asked a question that made us realize we were looking at the problem completely wrong."

If Tesla executives weren't exactly giddy, they were at least proud. Tesla sold 50,000 Model S cars in 2015, even as the price started at \$76,000. That same year, Tesla introduced [the Model X](#), an SUV with upward-folding falcon-wing doors. The company's revenues soared to \$7 billion the next year, and its workforce expanded to nearly 18,000. As Tesla's cars grew in popularity, so did Musk's fame. He played himself in episodes of *The Simpsons* and *The Big Bang Theory* and began appearing on red carpets. Millions of people started following him on Twitter, where he would post photos of spacecraft built by his rocket company, spark dialogs with strangers, and produce the occasional technologist's koan. "The rumor that I'm building a spaceship to get back to my home planet Mars is totally untrue," he tweeted in 2015.

"He went from nerd famous to Hollywood famous," said a former longtime executive. "It changes you when you suddenly become a celebrity." Musk bought five different mansions in one Bel Air neighborhood, at a total cost of \$72 million. One was a ranch-style house with 16,251 square feet and a screening room for videogames. As Musk's public profile grew, his life became more complicated. After he was divorced from his first wife, with whom he has five children, in 2008, he started dating celebrities (including actress Talulah Riley, whom he married and divorced twice). Some company executives say they began reading celebrity tabloids. If the magazines reported turmoil in Musk's love life, they knew to wait to deliver bad news. And executives followed his tweets and retweets closely. "We called it management by Twitter," a former Solar City employee said. "Some customer would tweet some random complaint, and then we would be ordered to drop everything and spend a week on some problem affecting one loudmouth in Pasadena, rather

than all the work we're supposed to do to support the thousands of customers who didn't tweet that day."

Still, Musk's storms were relatively easy to navigate. "He was surrounded by people he knew and trusted, who had been there for a while, who knew how to push back on him," said a former executive who spoke to Musk regularly over much of the past decade. "He listened to us when we said he needed to dial it down. But then the Model 3 happened and everyone started leaving, and then everything started falling apart."

On the morning of March 31, 2016, Musk left one of his Los Angeles homes and drove to a Tesla store in nearby Century City. It was the first day that customers could make reservations for the Model 3. If Musk's plans worked, the midpriced vehicle would sell by the millions and revolutionize transportation. Manufacturing wasn't scheduled to start for at least another year, but buyers who were willing to put down \$1,000 could reserve a car.

For weeks, some Tesla executives had wagered among themselves how many people would preorder a Model 3. Some optimists guessed more than 50,000, which would be close to an industry record. When Musk arrived in Century City, though, he saw something amazing. Nearly 2,000 people were standing in a line that wrapped around the building and into the parking lot. Musk began walking in the crowd, slapping hands while his bodyguard occasionally yelled "no selfies, just high-fives." Musk phoned other executives. Tesla stores elsewhere were similarly mobbed. By the end of the day, Tesla had accepted 180,000 reservations. By the end of the week, 325,000 people had ordered a Model 3. Tesla's stock price began to soar. The

company had sold fewer than 150,000 cars in its entire history, but within a little over a year it was worth more than General Motors, a company that sold more than 150,000 cars, on average, every week.

Soon after reservations opened, Doug Field, Tesla's senior vice president of engineering, called a meeting of his staff. "You are now working at a different company," he told them. Tesla had to go from a small manufacturer to a mass producer. "Everything has changed," Field said. Field was a critical cog in making sure that change occurred smoothly. Musk had increasingly come to rely on Field and Jon McNeill, Tesla's president of sales, marketing, delivery, and service, to oversee the company's rapidly growing workforce. Both Field and McNeill were seasoned managers, respected in Silicon Valley and by Tesla's staff. They and others had been recruited for their expertise and because running a company with tens of thousands of employees—from hourly workers to PhD scientists—required more than just genius and willpower.

Field was known to be methodical and disciplined. He had received degrees from the Massachusetts Institute of Technology and had helped build automobiles at Ford Motor Company. He came to Tesla in 2013 after working at Apple. Leaving Apple "was the hardest career decision I've made," Field said in a 2015 interview. "But it came down to the mission. It felt like a convergence of everything I had done in my career." (A spokesperson for Field declined to discuss his time at Tesla.)

McNeill, a former Bain consultant who had started four companies, joined Tesla in 2015. He was known as a generous mentor who had built a reputation for creating happy

workplaces. “The awards that bring me the most satisfaction are the Best Places to Work awards,” he told an interviewer in 2012. “Do these awards help us get business? I do not know.” But they attracted talent.

Tesla didn’t have a chief operating officer, so over time Field and McNeill became de facto daily managers, recruiting or overseeing dozens of vice presidents and other executives. By the time Tesla started taking reservations for the Model 3, that staff had already spent many months planning how it would build the car. The strategy was to start vehicle assembly at the Fremont plant in October 2017, according to a former engineering executive. Initially the factory would start small, giving employees time to smooth out assembly-line kinks and refine work processes. Then Tesla would start ramping up to 5,000 cars a week, the benchmark Musk had said the company needed to achieve.

SIGN UP TODAY

Sign up for the [Daily newsletter](#) and never miss the best of WIRED.

In the summer of 2016, however—soon after customers began reserving Model 3s—Musk called a meeting that changed everything, according to multiple people who attended or were briefed on the gathering. The company had to move faster, Musk told his senior executives. He wanted to start production in July 2017, almost four months ahead of plan. Musk was excited by a particular notion: He had recently had a dream, people in the room recall him saying, in which he had seen the factory of the

future, a fully automated manufacturing plant where robots built everything at high speed and parts moved along conveyor belts that delivered each piece, just in time, to exactly the right place. He said he had been working on such ideas for a while. "This thing will be an unstoppable alien dreadnought," he told his colleagues, causing some of them to pull out their phones and Google the phrase. (It returned disturbing images of sci-fi armored spaceships that looked like copulating squids.)

To make the dreadnought a reality, Musk said, departments would need to redesign their manufacturing plans. The familiar pattern kicked in: Executives told Musk what he was proposing was unrealistic. Tesla was already building the most advanced factory in auto manufacturing, and there would be plenty of time to make incremental improvements and add automation once everything was running smoothly. Overhauling all the lines would cost so much time and money that it might be impossible to meet his expectations.

Musk has said that nearly anything is possible unless it violates the laws of physics. *We're going to build the machine that builds the machine*, he told the room. But they had to move fast. A fully automated factory, he said, was an investment in Tesla's future that would help the company compete in the coming decades. Over the next few weeks, executives kept arguing with Musk. A steady stream of engineers began giving notice. And a troubling trend emerged, according to former executives: If someone raised concerns or objections, Musk would sometimes pull the person's manager aside and order that the offender be reassigned, or potentially terminated, or no longer invited to meetings. Some executives began excluding skeptics out of self-preservation. "If you were the kind of person who was likely to

push back, you got disinvited, because VPs didn't want anyone pissing off Elon," one former executive who reported to Musk told me. "People were scared that someone would question something."

Musk himself would later estimate that Tesla was burning through up to \$100 million a week as thousands of employees tried to build Musk's dreadnought. The threat of firing became a drumbeat. One former employee recalled hearing about a colleague who was eating breakfast at his desk when he was called away. His banana went brown and the milk in the cereal bowl formed a film before his officemates realized he'd been fired and cleaned up the mess. Musk "would say 'I've got to fire someone today,' and I'd say, 'No you don't,' and he'd say, 'No, no, I just do. I've got to fire somebody,'" one former high-ranking executive told me. (A Tesla spokesperson disputed this but added that Musk makes "difficult but necessary decisions.") At one meeting Musk, agitated, broke a phone. During another, he noticed that an executive was missing and called him. The man's wife had recently given birth, and he explained that he was taking time off as she recuperated. Musk was angry. At a minimum, you should be on phone calls, Musk told the man. Having a kid doesn't prevent you from being on the phone. (A Tesla spokesperson said that while Musk "was once upset that a particular executive did not dial into an important conference call several days after his child was born," the company would not penalize an employee for taking paternity leave.)

"Everyone came to work each day wondering if that was going to be their last day," another former executive told me. A previous employee remembered Musk saying that Tesla's goal was to save the world. "He would get really emotional," this person told me—

and that's why he sometimes seemed callous, "because what's one person's feelings compared to the fate of billions? Elon cares a lot about humanity, but he doesn't really care about individual people all that much." (A Tesla spokesperson said Musk "very much cares about individual people.")

Mike McQuade

By the summer of 2017, more than a year had passed since Tesla had started taking reservations for the Model 3, but the company was still nowhere near ready to make the car in volume. Engineers were still trying to figure out how to get robots to recognize and reliably grasp different colored wires, how to get parts where they were needed via a maze of conveyor belts. The company was far behind schedule, and some customers were [starting to ask](#) for their deposits back. On July 28, the firm hosted a huge press conference and celebration called the Model 3 Handover Party at the Fremont factory. Events like this were important, because Tesla does not spend money on advertising. Instead, it relies on glowing press coverage and ecstatic reviews to help sell cars.

At the party, Musk was scheduled to give the first 30 Model 3 customers—most of them employees—their automobiles. Because the assembly line was not fully functioning, those vehicles had been painstakingly built. Nevertheless, Musk, with a showman's zeal, had tweeted earlier that month that Tesla would be making 20,000 cars a month by year's end.

Once the event started, though, executives became worried. Musk, sitting in a room with his colleagues waiting for the press conference to start, seemed unresponsive, almost dead to the

world. He had been dating the actress Amber Heard, but recently they had broken up. Now there was a vacant look on Musk's face.

Executives squatted next to their boss and delivered pep talks. They told Musk he ought to enjoy this moment, when his dream of changing the world was finally becoming real. Musk stared ahead, silent. Eventually he walked into the room where journalists were waiting. His comments started off oddly dark. "We're going to go through [six months of manufacturing hell](#)," he said. "It's going to be pretty great, but it's going to be quite a challenge to build this car." He began listing all the things that might go wrong. "Floods, fires, tornadoes, ships sink, if anything interrupts one of our supply chains, that will interrupt the production ramp." Musk answered a few questions. "Sorry for being a little dry," he said. "Got a lot on my mind right now." To some, he appeared irritated to be there.

By that evening, Musk seemed more at ease when he unveiled 30 cars before an audience of hundreds. But the relief was short-lived, according to colleagues. The event marked the start of "a downward spiral," said a former high-ranking executive who was with Musk that day. "He was always a mad genius, but he was about 95 percent genius and 5 percent mad." That summer, possibly due to the breakup with Heard and the stress from the Model 3, the "ratio started to shift, and by the fall it was totally inverted."

Over the next few months, what had once been a tense situation inside Tesla became, as Musk had prophesied, hellish. He did little to mask his angst. One Sunday morning a few days after the Model 3 event, as Musk was scrolling through Twitter on his

iPhone, he saw a question posed by a game developer: "Following @elonmusk on Instagram shows an amazing life. I wonder if the ups and down he had make for a more enjoyable life?"

Musk began typing. "The reality is great highs, terrible lows and unrelenting stress. Don't think people want to hear about the last two," he replied. As others chimed in, one asked if Musk thought he suffered from bipolar depression. "Yeah," Musk tweeted back. "Maybe not medically tho. Dunno. Bad feelings correlate to bad events, so maybe real problem is getting carried away in what I sign up for."

At work, Musk sometimes seemed almost giddy, occasionally interrupting meetings to insist that his colleagues watch clips of *Monty Python* episodes on his computer, according to several people. A particular favorite was a skit of aristocrats debating the virtues of words like *antelope* versus *sausage*. He would play it more than once, laughing uproariously each time, as his colleagues waited to return to the issues at hand.

More concerning to executives were Musk's low periods, particularly in the wake of his split from Amber Heard. In the weeks after the first Model 3 handovers, Musk occasionally didn't show up for meetings, or they would be canceled at the last minute, former employees say. Colleagues say they would call him on his cell phone in the morning, to make sure he had started the day. Musk gave bizarre interviews: He described being in "[severe emotional pain](#)" to a writer from *Rolling Stone* and then asked for dating advice. "I will never be happy without having someone," he said. "Going to sleep alone kills me."

In the months after the handover party, Musk seemed angrier than before, according to multiple people. “It started to feel like every day you expected to be fired,” said one executive who says he had three supervisors in three days. “There was this constant feeling of dread.”

Some managers feared that by taking on more prominent roles they increased their risk of termination or public humiliation. One former executive described Musk shaming her in front of colleagues. “He was shouting that I didn’t know what I was doing, that I was an idiot, that he’s never worked with someone so incompetent,” she told me. In a company with so many male employees, “as a woman it was particularly humiliating,” she said.

Musk “puts a lot of effort into forcing himself to be fully honest,” says Todd Maron, Tesla’s general counsel, “and when he genuinely thinks someone has failed at something, he will let you know.”

Todd Maron, Tesla’s general counsel, said in defense of Musk that “there’s a lot of people outside Tesla who will sort of sugarcoat what they actually think of your performance, or of an issue, because they don’t really want to have the hard conversation.” Musk, however, “is someone who, I think, puts a lot of effort into forcing himself to be fully honest, and when he genuinely thinks someone has failed at something, he will let you know that he thinks you have failed at that and that the company requires that you do better so that we can achieve our mission and succeed.” (A month after I spoke to Maron, Tesla made the announcement that he would be leaving in January, one in a string of recent executive departures, which includes

the company's chief information officer, chief people officer, chief accounting officer, and vice presidents of manufacturing, worldwide finance, and engineering.)

Whether it was because of Musk's management style or in spite of it, progress continued. "And that was the weird part," a high-ranking engineering executive said, "because we were doing amazing work. I don't want it to seem like the whole experience was negative, because when people were shielded from Elon, Tesla was amazing. We did incredible things."

By the fall of 2017, parts of the Model 3 assembly line were starting to function smoothly. Production was beginning to pick up. Advances sometimes felt Pyrrhic, though, given Musk's tendency to announce ambitious milestones. (Shareholders have sued the company over such announcements, and the Department of Justice has opened a probe into whether Tesla misled the public about Model 3 projections and production. Tesla, in a statement, said it was cooperating with the Department of Justice and that "Tesla's philosophy has always been to set truthful targets.")

Then, one evening in late October of that year, as things were still going badly inside the Gigafactory, Musk climbed onto the facility's roof and posted a video on Instagram of himself and a few others roasting marshmallows, drinking whiskey, and singing a Johnny Cash song. "That did not go over well," said a former high-ranking engineering executive. "All these people are working super hard, and he's drinking and having a campfire." Soon afterward, the company revealed that it had lost \$671 million in the previous quarter and had built only 222 Model 3s; it had lost \$1.5 billion in the first nine months of the year. During

a November conference call with Wall Street analysts, as his colleagues listened apprehensively, Musk declared: "I have to tell you, I was really depressed about three or four weeks ago." But he had become optimistic. "Now I can see sort of a clear path to sunshine," he said. He had been working nonstop, sleeping in the factory, personally diagnosing robot calibration problems. "We are on it," he added. "We've got it covered."

Some of Musk's colleagues cringed at these statements. Among the biggest obstacles, they believed, was Musk himself. There was disarray at Tesla because Musk kept insisting on automation, because so many people were leaving, because subordinates were terrified that challenging Musk could cost them their jobs.

Some executives felt something more was needed. At least two senior executives approached some of Tesla's board members and said they were worried about Musk, according to people with knowledge of those conversations. Everyone wanted Musk to succeed but he needed help, one executive told them. (Board members Antonio Gracias, Ira Ehrenpreis, and Robyn Denholm, in a statement, said that it "is not true" that they were asked to speak to Musk about his behavior. The board members declined to be interviewed and declined to answer questions about whether they had or sought out conversations about Musk's behavior.)

One person who tried to share concerns with Musk himself was his personal assistant. She approached him one day in private, according to people who later heard about the conversation. Executives are struggling, she told Musk. (In an email, she

objected to any suggestion of tension with Musk and declined interview requests.)

Colleagues say the assistant was a gentle, calming presence in Musk's life. It was her job to give him feedback, even if it was sometimes hard to hear. She was beloved by other executives, who often asked her to help them gauge Musk's moods.

A few months later, she left the company.

By early February 2018, top executives were leaving. McNeill told Musk he was quitting, and would go on to become the chief operating officer at Lyft. This was a huge loss—with the possibility of inflaming anxieties among employees and stockholders—and so there were discussions about how to handle disclosing the departure. But after the news leaked, Musk announced the exit as almost an afterthought during a conference call with Wall Street analysts. "Actually, one thing we forgot to mention is Jon McNeill, who is heading up our sales and service group, is departing the company." Musk said. "Going forward, I will be having the sales and service report directly to me."

A few months later, Doug Field indicated he wanted to take a leave of absence, which one person described to *The Wall Street Journal* as a "six-week sabbatical." Field never returned to Tesla; instead he took a job back at Apple. All told, more than 36 Tesla vice presidents or higher-ranking staffers had left the company in the previous two years. Some of them weren't replaced. Soon, according to various sources, there were 19 people directly reporting to Musk and another 11 executives who did not have superiors. (Tesla disputes those numbers.) Musk had enormous oversight responsibilities, particularly as he was running other

companies at the same time. “It felt like the adults were leaving the building,” one senior finance person told me. “There was really no one left who could push back on Elon anymore.”

By then, even Musk had conceded that the company’s fully automated factory vision, the “alien dreadnought,” wasn’t working. Workers ripped out conveyor belts inside the Fremont plant. Employees began carrying car parts to their workstations by hand or forklift and stacking boxes in messy piles. In April, Musk halted production for an entire week to make repairs. On some level, Musk seemed to recognize that he was undermining Tesla. “Excessive automation at Tesla was a mistake,” Musk tweeted. “To be precise, my mistake.” He once told a colleague: “We just have to stop punching ourselves in the head.”

But the punches kept coming. Musk’s Twitter habits accelerated—and sometimes veered out of control. On average, he had tweeted 94 times a month in 2016 and 2017. But after Field and McNeill left, he seemed to get sucked into a social media vortex. He sent 421 messages in May 2018, 414 in June, and 310 in July. The content of the messages was as unrestrained as the frequency. He posted bits of poems, derided journalists, and taunted short-sellers who were betting that Tesla’s stock price would fall. “You’re an idiot,” he tweeted in 2017 at a transit expert who criticized him. “Sorry,” he clarified. “Meant to say ‘sanctimonious idiot.’” He also sent insults via other means. “You’re a horrible human being,” he emailed a former employee who had spoken out about Tesla, according to Business Insider. He sent a BuzzFeed reporter an email calling him a “fucking asshole.”

In May, Musk announced the company's latest earnings in a conference call. He made no effort at civility and no one held him back. When a Wall Street analyst asked Tesla's chief financial officer about capital expenditures, Musk responded: "Boring. Bonehead questions are not cool. Next?" With the next question, he erupted again. "These questions are so dry. They're killing me!" and called upon a YouTube video blogger with an enormous enthusiasm for Tesla to ask questions for the next 20 minutes. (The company's stock price dropped more than 5 percent after the call.)

Come summer, news coverage of Tesla was lurching from disaster to disaster. "For a long time, Elon would say or do something kind of wacky, and I would get up in front of my team and explain, this is why you shouldn't worry about it," said one executive who had been with Tesla for some years. "But eventually it got to where I couldn't apologize anymore."

"For a long time, Elon would say or do something kind of wacky, and I would get up in front of my team and explain, this is why you shouldn't worry about it," said a former executive. "But eventually, it got to the point where I couldn't apologize anymore."

Rumors of Musk's behavior made their way to potential hires. One story that numerous people recounted involved a candidate for a retail development position. When he came to his interview with Musk, he wore blue shoes. Musk turned to a colleague and said he didn't like the candidate's shoes. The colleague explained the candidate's qualifications. But Musk was unmoved; he rejected the candidate. (In a statement, a Tesla spokesperson said that Musk rejected the candidate because his experience

wasn't right for Tesla, and "the fact that Elon also mentioned in passing that he didn't like the candidate's shoes had nothing at all to do with why he wasn't hired.")

The story, however, came to be seen as an example of Musk's impulsiveness. "After hearing about that, you stop recommending to friends they should apply," a former executive told me. "You don't want to put friends through that."

In June, at Tesla's annual shareholders meeting, Musk seemed sometimes near tears. "This is like—I tell you—the most excruciating, hellish several months that I have maybe ever had," he said. It would eventually come out in Tesla's financial filings that almost 20 percent of customers who had put down a deposit for the Model 3 had asked for refunds.

Musk soon announced Tesla had built a [tent in the parking lot](#) of the Fremont factory, where a new assembly line had been constructed. Musk spent his 47th birthday inside the factory, working nonstop. "All night—no friends, nothing," he later told *The New York Times*.

"The Model 3 production ramp was excruciatingly difficult for everyone at Tesla," a company spokesperson said in a statement to WIRED. "In order for Tesla to succeed, we must have extremely high standards and work harder and smarter than everyone else. Sometimes, when we feel it's important to the success of our mission, that means people are let go. Those decisions are never easy and they are not made lightly, but hard decisions need to be made if we are to succeed. The alternative is the death of sustainable transportation, which is something we simply cannot accept."

On July 1—more than two years after opening reservations for the Model 3—Musk finally sent the jubilant email many employees had been waiting for. “I think we just became a real car company,” he wrote. Tesla had manufactured 5,031 Model 3 vehicles during a seven-day period. They had hit their goal, six months late, at a cost of hundreds of millions of dollars and dozens of executive departures. “What an incredible job by an amazing team,” Musk wrote. “Couldn’t be more proud to work with you.”

Employees inside the company also thought it was amazing, though some cite different reasons.

“For me, the fact that we were able to build at scale, amid all that craziness, that’s the real accomplishment,” one former engineering executive told me. “Just think about it: We designed a car that is so simple and elegant you can build it in a tent. You can build it when your CEO is melting down. You can build it when everyone is quitting or getting fired. That’s a real accomplishment. That’s amazing.”

Mike McQuade

It was amazing. But, as everyone knows, after that moment things got, in some ways, even stranger. When a Thai boys’ soccer team was trapped in a flooded cave in June, Musk offered to [build a submarine](#) to rescue them. But after his assistance was partially rebuffed, he tweeted an accusation that one of the rescuers was a pedophile. (There is no evidence this claim is true, and the rescuer has filed a defamation lawsuit, which is still pending.) Then news broke that, with debts of more than \$900 million coming due in March, Tesla had asked suppliers to give

back money the company had already paid them. In August, Musk sent the now infamous tweet: “Am considering taking Tesla private at \$420. Funding secured.” Tesla’s stock soared. It quickly became apparent, though, that Musk had neither nailed down the money to take Tesla private nor had he done the basic groundwork for such an announcement, such as determining what regulatory approvals were necessary, according to a complaint against him by the Securities and Exchange Commission. Musk and Tesla eventually settled the SEC charges for \$20 million apiece, and Musk was forced to relinquish his chairmanship of the board. He remains chief executive. (In November, Tesla named board member Robyn Denholm as chair.)

There were other dramas as well. As part of its settlement with the SEC, Tesla is supposed to set up controls and procedures for Musk’s communications. A week later, he sarcastically tweeted that the agency had been renamed the “Shortseller Enrichment Commission.” In response to a question on Twitter about cosplay, he posted pictures of manga women with captions like “im actually catgirl here’s selfie” and solicitations to buy bitcoin. Twitter shut down his account, assuming it had been hacked, until Musk confirmed the posts were his.

Then, in September, on the *Joe Rogan Experience* podcast, [Musk smoked marijuana](#). The video of the moment went viral, and while some people mocked Musk for appearing not to inhale, others raised more serious questions. The show was recorded in California, where recreational cannabis use is legal, but Musk is chief executive of SpaceX—a government contractor that works on national security projects. Musk has received security clearance, according to the Department of Defense, and

“individuals with federal security clearances have to abide by federal laws, period. You are not allowed to smoke marijuana, regardless of state law,” said Department of Defense spokesperson Audricia Harris. A few weeks before the Rogan podcast, *The New York Times* reported that “some board members are also aware that Mr. Musk has on occasion used recreational drugs, according to people familiar with the matter.”

Tesla, in a statement to WIRED, wrote that the “employees and executives who work with Elon day in and day out, and who know him best, can and do attest to the fact that they have never observed Elon to be under the influence of anything that could affect his judgment at work.” The company continued: “SpaceX conducts random drug testing, administered by an independent laboratory, on its employees in a sensitive position—including Elon. Such testing never has shown even trace quantities of drugs in Elon’s system.” In November, NASA announced it would be conducting a “cultural assessment study” of SpaceX and Boeing to ensure the companies were meeting NASA’s requirements of “adherence to a drug-free environment.” *The Washington Post* reported that officials had indicated “the review was prompted by the recent behavior of SpaceX’s founder, Elon Musk.”

LEARN MORE

The WIRED Guide to [Robots](#)

Throughout the summer and into the fall, Musk’s public behavior lurched from feisty to angry to almost pitifully distraught. As the

weather grew colder, however, Musk seemed to emerge from his gloom. Musk gave interviews to Kara Swisher's *Recode Decode* podcast, *Axios on HBO*, and *60 Minutes*. He has talked about a range of subjects: how he's been misunderstood and mistreated by journalists, his hope of merging the human brain with machines so we can download our consciousness, his enthusiasm for competition in the electric car business. He also declared to *60 Minutes* that he has "no idea how to smoke pot" and said, "I do not respect the SEC." In the *Axios* interview he said, not for the first time, that the experience of ramping up the Model 3 was among the most difficult of his life. "Seven days a week, sleeping at the factory," he said. "No one should put this many hours into work." Musk looked tired and uncomfortable as he said the company had come within weeks of death, and described how the experience "hurts my brain and my heart." He didn't mention in that interview what his demands had meant to those who worked for him—to the people who had been fired, those who had been screamed at, or those who'd worked long weekends at the Gigafactory.

Musk's odd behavior isn't unique or even extreme in the annals of inventors. Howard Hughes lived like a hermit in hotels, watching movies in the nude and refusing to cut his fingernails. Nikola Tesla, who pioneered alternating current electricity delivery—and who is honored in the name of Musk's company—died destitute, convinced he had invented a motor that could run on "cosmic rays" and obsessed with caring for sick pigeons. (He is reputed to have said of one, "I loved that pigeon as a man loves a woman, and she loved me.")

There's a sense of tragedy in such stories because these men seemed, at one point, to rise above the masses and suggest that

genius is possible. Silicon Valley in particular reveres these kind of heroes—and the more willful and ornery they are, the better. Technologists are often called upon to do things that seem impossible, and so they celebrate when doubters are proven wrong—when dismissal of an idea becomes evidence of its visionary reach. The idea of the odd genius is afforded a special status within technology. People lionize inventors who listen to their intuition and ignore naysayers, who hold themselves and everyone else to a standard of perfection, regardless of what it costs those around them. Steve Jobs is gone; now we have Elon Musk.

Throughout the turmoil, workers at Tesla have continued building Model 3s, getting better and faster each day. They still don't sell the car for \$35,000—the least expensive version costs at least \$10,000 more—but someday, who knows? The large quarterly profit the company announced in October provided the firm with a moment of relief. Some former executives say what concerns them now is whether other car companies—the big ones with well-honed manufacturing systems, steady executives, and functioning bureaucracies—will start making electric cars that are just as good as Tesla's, erasing the company's head start and cachet.

After Musk abandoned his brash proposal to take Tesla private, some on Wall Street argued that the company would benefit from a leadership change. "We are hopeful that ... the past 17 days will lead the board down the path to bringing on a more operational CEO, or at a minimum a COO," Cowen and Company analysts wrote after Musk tweeted and then dropped his suggestion about going private. "Now, more than ever, a solid number 2—someone with strong operational background that

can help Tesla move from ideas to execution—is crucial,” RBC Capital Markets wrote to clients. Some have proposed that Musk might become Tesla’s chief design officer—a wizard and motivational force.

“The fact that we were able to build at scale, amid all that craziness, that’s the real accomplishment,” one former executive said. “We designed a car that is so simple and elegant you can build it in a tent. You can build it when your CEO is melting down.”

Others, though, are skeptical. “A strong executive isn’t going to come in with him hovering over their shoulder,” a former senior executive told me. It is unlikely Musk will give up power, former colleagues say. In January 2018, shareholders agreed to compensate Musk as much as \$55 billion over the next 10 years, but only if the Musk continues to lead the company and hits 12 milestones, including a market capitalization of \$650 billion, roughly 10 times what it’s worth today. (Musk, who is worth more than \$20 billion and already owns a great deal of Tesla stock, won’t be paid anything at all if Tesla doesn’t grow to the targets.) “He’s got 55 billion reasons to never let anybody run that company,” one executive said.

A Tesla spokesperson said that Musk has proven himself. “The fact that under Elon’s leadership we have successfully ramped Model 3 production and just had our most successful quarter in the company’s history suggests he was not an obstacle to Tesla’s success.”

Eric Larkin, who helped oversee factory software until he was fired in April, still feels a strong emotional and financial attachment to Tesla. He’d worked there for three years and was

proud to be part of something that could reduce carbon in the atmosphere and “accelerate the world’s transition to sustainable energy,” as the company’s mission statement puts it. “Tesla is the only company positioned to make this world a better place, to really improve the world right now,” Larkin told me. “And Tesla is Elon. How can you be bitter about humanity’s best hope?”

Many I spoke to agreed that Tesla and Musk, for the time being, are inseparable. Which is why they are so bewildered by his behavior and so disappointed that his strengths are accompanied by such curious faults. A few years ago, two Tesla workers were having drinks at a hotel bar across from the Fremont factory when Musk walked in. He was alone except for a bodyguard. They asked Musk if he would like to join their table. Musk sat, and after a few uncomfortable moments started talking about the TV shows he liked, cartoons like *South Park* and *Family Guy*. Everyone ordered expensive Scotch and began recounting their favorite episodes from *The Simpsons*. It was fun. They laughed a lot. It didn’t feel normal, exactly. But it also didn’t feel scary or bad, as it so often did inside the factory. They could have been anyone, just ordinary friends catching up. Then, after a few hours, Musk paid the bill and walked away, back into his chaotic, frenzied, tigerlike life.

Source photos: Nhat V. Meyer/Bay Area News/Getty Images (Musk); Tom Brakefield/Getty Images (Tiger)

Jason Henry/The New York Times/Redux (Gigafactory)

Mark Brake/Getty Images (Musk); Justin Kaneps/The New York Times/Redux (Car)