As lifelong students of leadership, we are fascinated with the notion of what makes a leader. Why is it that certain people seem to naturally inspire confidence, loyalty, and hard work, while others (who may have just as much vision and smarts) stumble, again and again? It’s a timeless question, and there’s no simple answer. But we have come to believe it has something to do with the different ways that people deal with adversity. Indeed, our recent research has led us to conclude that one of the most reliable indicators and predictors of true leadership is an
individual’s ability to find meaning in negative events and to learn from even the most trying circumstances. Put another way, the skills required to conquer adversity and emerge stronger and more committed than ever are the same ones that make for extraordinary leaders.

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Take Sidney Harman. Thirty-four years ago, the then-48-year-old businessman was holding down two executive positions. He was the chief executive of Harman Kardon (now Harman International), the audio components company he had cofounded, and he was serving as president of Friends World College, now Friends World Program, an experimental Quaker school on Long Island whose essential philosophy is that students, not their teachers, are responsible for their education. Juggling the two jobs, Harman was living what he calls a “bifurcated life,” changing clothes in his car and eating lunch as he drove between Harman Kardon offices and plants and the Friends World campus. One day while at the college, he was told his company’s factory in Bolivar, Tennessee, was having a crisis.

He immediately rushed to the Bolivar factory, a facility that was, as Harman now recalls, “raw, ugly, and, in many ways, demeaning.” The problem, he found, had erupted in the polish and buff department, where a crew of a dozen workers, mostly African-Americans, did the dull, hard work of polishing mirrors and other parts, often under unhealthy conditions. The men on the night shift were supposed to get a coffee break at 10 pm. When the buzzer that announced the workers’ break went on the fritz, management arbitrarily decided to postpone the break for ten minutes, when another buzzer was scheduled to sound. But one worker, “an old black man with an almost biblical name, Noah B. Cross,” had “an epiphany,” as Harman describes it. “He said, literally, to his fellow workers, ‘I don’t work for no buzzer. The buzzer works for me. It’s my job to tell me when it’s ten o’clock. I got me a watch. I’m not waiting another ten minutes. I’m going on my coffee break.’ And all 12 guys took their coffee break, and, of course, all hell broke loose.”
The worker’s principled rebellion—his refusal to be cowed by management’s senseless rule—was, in turn, a revelation to Harman: “The technology is there to serve the men, not the reverse,” he remembers realizing. “I suddenly had this awakening that everything I was doing at the college had appropriate applications in business.” In the ensuing years, Harman revamped the factory and its workings, turning it into a kind of campus—offering classes on the premises, including piano lessons, and encouraging the workers to take most of the responsibility for running their workplace. Further, he created an environment where dissent was not only tolerated but also encouraged. The plant’s lively independent newspaper, the *Bolivar Mirror*, gave workers a creative and emotional outlet—and they enthusiastically skewered Harman in its pages.

Harman had, unexpectedly, become a pioneer of participative management, a movement that continues to influence the shape of workplaces around the world. The concept wasn’t a grand idea conceived in the CEO’s office and imposed on the plant, Harman says. It grew organically out of his going down to Bolivar to, in his words, “put out this fire.” Harman’s transformation was, above all, a creative one. He had connected two seemingly unrelated ideas and created a radically different approach to management that recognized both the economic and humane benefits of a more collegial workplace. Harman went on to accomplish far more during his career. In addition to founding Harman International, he served as the deputy secretary of commerce under Jimmy Carter. But he always looked back on the incident in Bolivar as the formative event in his professional life, the moment he came into his own as a leader.

The details of Harman’s story are unique, but their significance is not. In interviewing more than 40 top leaders in business and the public sector over the past three years, we were surprised to find that all of them—young and old—were able to point to intense, often traumatic, always unplanned experiences that had transformed them and had become the sources of their distinctive leadership abilities.

We came to call the experiences that shape leaders “crucibles,” after the vessels medieval alchemists used in their attempts to turn base metals into gold. For the leaders we interviewed, the crucible experience was a trial and a test, a point of deep self-reflection that forced them to question who they were and what mattered to them. It required them to examine their values, question their assumptions, hone their judgment. And, invariably, they emerged from the crucible stronger and more sure of themselves and their purpose—changed in some fundamental way.
Leadership crucibles can take many forms. Some are violent, life-threatening events. Others are more prosaic episodes of self-doubt. But whatever the crucible’s nature, the people we spoke with were able, like Harman, to create a narrative around it, a story of how they were challenged, met the challenge, and became better leaders. As we studied these stories, we found that they not only told us how individual leaders are shaped but also pointed to some characteristics that seem common to all leaders—characteristics that were formed, or at least exposed, in the crucible.

**Learning From Difference**

A crucible is, by definition, a transformative experience through which an individual comes to a new or an altered sense of identity. It is perhaps not surprising then that one of the most common types of crucibles we documented involves the experience of prejudice. Being a victim of prejudice is particularly traumatic because it forces an individual to confront a distorted picture of him- or herself, and it often unleashes profound feelings of anger, bewilderment, and even withdrawal. For all its trauma, however, the experience of prejudice is for some a clarifying event. Through it, they gain a clearer vision of who they are, the role they play, and their place in the world.

Consider, for example, Liz Altman, now a Motorola vice president, who was transformed by the year she spent at a Sony camcorder factory in rural Japan, where she faced both estrangement and sexism. It was, says Altman, “by far, the hardest thing I’ve ever done.” The foreign culture—particularly its emphasis on groups over individuals—was both a shock and a challenge to a young American woman. It wasn’t just that she felt lonely in an alien world. She had to face the daunting prospect of carving out a place for herself as the only woman engineer in a plant, and nation, where women usually serve as low-level assistants and clerks known as “office ladies.”

Another woman who had come to Japan under similar circumstances had warned Altman that the only way to win the men’s respect was to avoid becoming allied with the office ladies. But on her very first morning, when the bell rang for a coffee break, the men headed in one direction and the women in another—and the women saved her a place at their table, while the men ignored her. Instinct told Altman to ignore the warning rather than insult the women by rebuffing their invitation.
Over the next few days, she continued to join the women during breaks, a choice that gave her a comfortable haven from which to observe the unfamiliar office culture. But it didn’t take her long to notice that some of the men spent the break at their desks reading magazines, and Altman determined that she could do the same on occasion. Finally, after paying close attention to the conversations around her, she learned that several of the men were interested in mountain biking. Because Altman wanted to buy a mountain bike, she approached them for advice. Thus, over time, she established herself as something of a free agent, sometimes sitting with the women and other times engaging with the men.

And as it happened, one of the women she’d sat with on her very first day, the department secretary, was married to one of the engineers. The secretary took it upon herself to include Altman in social gatherings, a turn of events that probably wouldn’t have occurred if Altman had alienated her female coworkers on that first day. “Had I just gone to try to break in with [the men] and not had her as an ally, it would never have happened,” she says.

Looking back, Altman believes the experience greatly helped her gain a clearer sense of her personal strengths and capabilities, preparing her for other difficult situations. Her tenure in Japan taught her to observe closely and to avoid jumping to conclusions based on cultural assumptions—invaluable skills in her current position at Motorola, where she leads efforts to smooth alliances with other corporate cultures, including those of Motorola’s different regional operations.

Altman has come to believe that she wouldn’t have been as able to do the Motorola job if she hadn’t lived in a foreign country and experienced the dissonance of cultures:” …even if you’re sitting in the same room, ostensibly agreeing…unless you understand the frame of reference, you’re probably missing a bunch of what’s going on.” Altman also credits her crucible with building her confidence—she feels that she can cope with just about anything that comes her way.

People can feel the stigma of cultural differences much closer to home, as well. Muriel (“Mickie”) Siebert, the first woman to own a seat on the New York Stock Exchange, found her crucible on the Wall Street of the 1950s and 1960s, an arena so sexist that she couldn’t get a job as a stockbroker until she took her first name off her résumé and substituted a genderless initial. Other than the secretaries and the occasional analyst, women were few and far
between. That she was Jewish was another strike against her at a time, she points out, when most of big business was “not nice” to either women or Jews. But Siebert wasn’t broken or defeated. Instead, she emerged stronger, more focused, and more determined to change the status quo that excluded her.

When we interviewed Siebert, she described her way of addressing anti-Semitism—a technique that quieted the offensive comments of her peers without destroying the relationships she needed to do her job effectively. According to Siebert, at the time it was part of doing business to have a few drinks at lunch. She remembers, “Give somebody a couple of drinks, and they would talk about the Jews.” She had a greeting card she used for those occasions that went like this:

Roses are reddish,

Violets are bluish,

In case you don’t know,

I am Jewish.

Siebert would have the card hand-delivered to the person who had made the anti-Semitic remarks, and on the card she had written, “Enjoyed lunch.” As she recounts, “They got that card in the afternoon, and I never had to take any of that nonsense again. And I never embarrassed anyone, either.” It was because she was unable to get credit for the business she was bringing in at any of the large Wall Street firms that she bought a seat on the New York Stock Exchange and started working for herself.

In subsequent years, she went on to found Muriel Siebert & Company (now Siebert Financial Corporation) and has dedicated herself to helping other people avoid some of the difficulties she faced as a young professional. A prominent advocate for women in business and a leader in developing financial products directed at women, she’s also devoted to educating children about financial opportunities and responsibility.
We didn’t interview lawyer and presidential adviser Vernon Jordan for this article, but he, too, offers a powerful reminder of how prejudice can prove transformational rather than debilitating. In *Vernon Can Read! A Memoir* (Public Affairs, 2001), Jordan describes the vicious baiting he was subjected to as a young man. The man who treated him in this offensive way was his employer, Robert F. Maddox. Jordan served the racist former mayor of Atlanta at dinner, in a white jacket, with a napkin over his arm. He also functioned as Maddox’s chauffeur. Whenever Maddox could, he would derisively announce, “Vernon can read!” as if the literacy of a young African-American were a source of wonderment.

Subjected to this type of abuse, a lesser man might have allowed Maddox to destroy him. But in his memoir, Jordan gives his own interpretation of Maddox’s sadistic heckling, a tale that empowered Jordan instead of embittering him. When he looked at Maddox through the rearview mirror, Jordan did not see a powerful member of Georgia’s ruling class. He saw a desperate anachronism, a person who lashed out because he knew his time was up. As Jordan writes about Maddox, “His half-mocking, half-serious comments about my education were the death rattle of his culture. When he saw that I was…crafting a life for myself that would make me a man in…ways he thought of as being a man, he was deeply unnerved.”

Maddox’s cruelty was the crucible that, consciously or not, Jordan imbued with redemptive meaning. Instead of lashing out or being paralyzed with hatred, Jordan saw the fall of the Old South and imagined his own future freed of the historical shackles of racism. His ability to organize meaning around a potential crisis turned it into the crucible around which his leadership was forged.

**Geeks and Geezers**

We didn’t set out to learn about crucibles. Our research for this article and for our new book, *Geeks and Geezers*, was actually designed to uncover the ways that *era* influences a leader’s motivation and aspirations. We interviewed 43 of today’s top leaders in business and the public sector, limiting our subjects to people born in or before 1925, or in or after 1970. To our delight, we learned a lot about how age and era affect leadership style.

**Prevailing over Darkness**

Some crucible experiences illuminate a hidden and suppressed area of the soul. These are often among the harshest of crucibles, involving, for instance, episodes of illness or violence. In the case of Sidney Rittenberg, now 79, the crucible took the form of 16 years of unjust imprisonment, in solitary confinement, in Communist China. In 1949 Rittenberg was initially jailed, without explanation, by former friends in Chairman Mao Zedong’s government and spent his first year in total
Our geeks and geezers (the affectionate shorthand we eventually used to describe the two groups) had very different ideas about paying your dues, work-life balance, the role of heroes, and more. But they also shared some striking similarities—among them a love of learning and strong sense of values. Most intriguing, though, both our geeks and our geezers told us again and again how certain experiences inspired them, shaped them, and, indeed, taught them to lead. And so, as the best research often does, our work turned out to be even more interesting than we thought it would be. We continued to explore the influences of era—our findings are described in our book—but at the same time we probed for stories of these crucible experiences. These are the stories we share with you here.

darkness when he wasn’t being interrogated. (Rittenberg later learned that his arrest came at the behest of Communist Party officials in Moscow, who had wrongly identified him as a CIA agent.) Thrown into jail, confined to a tiny, pitch-dark cell, Rittenberg did not rail or panic. Instead, within minutes, he remembered a stanza of verse, four lines recited to him when he was a small child:

They drew a circle that shut me out,

Heretic, rebel, a thing to flout.

But love and I had the wit to win,

That bit of verse (adapted from “Outwitted,” a poem by Edwin Markham) was the key to Rittenberg’s survival. “My God,” he thought, “there’s my strategy.” He drew the prison guards into his circle, developing relationships that would help him adapt to his confinement. Fluent in Chinese, he persuaded the guards to deliver him books and, eventually, provide a candle so that he could read. He also decided, after his first year, to devote himself to improving his mind—making it more scientific, more pure, and more dedicated to socialism. He believed that if he raised his consciousness, his captors would understand him better. And when, over time, the years in the dark began to take an intellectual toll on him and he found his reason faltering, he could still summon fairy tales and childhood stories such as The Little Engine That Could and take comfort from their simple messages.

By contrast, many of Rittenberg’s fellow prisoners either lashed out in anger or withdrew. “They tended to go up the wall… They couldn’t make it. And I think the reason was that they didn’t understand…that happiness…is not a function of your circumstances; it’s a function of your outlook on life.”
Rittenberg’s commitment to his ideals continued upon his release. His cell door opened suddenly in 1955, after his first six-year term in prison. He recounts, “Here was a representative of the central government telling me that I had been wronged, that the government was making a formal apology to me…and that they would do everything possible to make restitution.” When his captors offered him money to start a new life in the United States or to travel in Europe, Rittenberg declined, choosing instead to stay in China and continue his work for the Communist Party.

And even after a second arrest, which put him into solitary confinement for ten years as retaliation for his support of open democracy during the Cultural Revolution, Rittenberg did not allow his spirit to be broken. Instead, he used his time in prison as an opportunity to question his belief system—in particular, his commitment to Marxism and Chairman Mao. “In that sense, prison emancipated me,” he says.

Rittenberg studied, read, wrote, and thought, and he learned something about himself in the process: “I realized I had this great fear of being a turncoat, which…was so powerful that it prevented me from even looking at [my assumptions]… Even to question was an act of betrayal. After I got out…the scales fell away from my eyes and I understood that…the basic doctrine of arriving at democracy through dictatorship was wrong.”

What’s more, Rittenberg emerged from prison certain that absolutely nothing in his professional life could break him and went on to start a company with his wife. Rittenberg Associates is a consulting firm dedicated to developing business ties between the United States and China. Today, Rittenberg is as committed to his ideals—if not to his view of the best way to get there—as he was 50 years ago, when he was so severely tested.

Meeting Great Expectations

Fortunately, not all crucible experiences are traumatic. In fact, they can involve a positive, if deeply challenging, experience such as having a demanding boss or mentor. Judge Nathaniel R. Jones of the U.S. Court of Appeals for the Sixth Circuit, for instance, attributes much of his success to his interaction with a splendid mentor. That
openness, and an enduring capacity for wonder that is the antithesis of stereotyped old age.

We borrowed a term from biology—“neoteny,” which, according to the American Heritage Dictionary, means “retention of juvenile characteristics in the adults of a species”—to describe this quality, this delight in lifelong learning, which every leader we interviewed displayed, regardless of age. To a person, they were full of energy, curiosity, and confidence that the world is a place of wonders spread before them like an endless feast.

Robert Galvin, former Motorola chairman now in his late 70s, spends his weekends windsurfing. Arthur Levitt, Jr., former SEC chairman who turned 71 this year, is an avid Outward Bound trekker. And architect Frank Gehry is now a 72-year-old ice hockey player. But it’s not only an affinity for physical activity that characterizes neoteny—it’s an appetite for learning and self-development, a curiosity and passion for life.

To understand why this quality is so powerful in a leader, it might help to take a quick look at the scientific principle behind it—neoteny as an evolutionary engine. It is the winning, puppyish quality of certain ancient wolves that allowed them to evolve into dogs. Over thousands of years, humans favored wolves that were the friendliest, most approachable, and most curious. Naturally, people were most drawn to the wolves least likely to attack without warning, that readily locked eyes with them, and that seemed almost human in their eager response to people;

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Dickerson influenced Jones at many levels. For instance, the older man brought Jones behind the scenes to witness firsthand the great civil rights struggle of the 1950s, inviting him to sit in on conversations with activists like Thurgood Marshall, Walter White, Roy Wilkins, and Robert C. Weaver. Says Jones, “I was struck by their resolve, their humor…and their determination not to let the system define them. Rather than just feel beaten down, they turned it around.” The experience no doubt influenced the many important opinions Judge Jones has written in regard to civil rights.
the ones, in short, that stayed the most like puppies. Like human infants, they have certain physical qualities that elicit a nurturing response in human adults.

When infants see an adult, they often respond with a smile that begins small and slowly grows into a radiant grin that makes the adult feel at center of the universe. Recent studies of bonding indicate that nursing and other intimate interactions with an infant cause the mother’s system to be flooded with oxytocin, a calming, feel-good hormone that is a powerful antidote to cortisol, the hormone produced by stress. Oxytocin appears to be the glue that produces bonding. And the baby’s distinctive look and behaviors cause oxytocin to be released in the fortunate adult. That appearance—the one that pulls an involuntary “aaah” out of us whenever we see a baby—and those oxytocin-inducing behaviors allow infants to recruit adults to be their nurturers, essential if such vulnerable and incompletely developed creatures are to survive.

The power of neoteny to recruit protectors and nurturers was vividly illustrated in the former Soviet Union. Forty years ago, a Soviet scientist decided to start breeding silver foxes for neoteny at a Siberian fur farm. The goal was to create a tamer fox that would go with less fuss to slaughter than the typical silver fox. Only the least aggressive, most approachable animals were bred.

The experiment continued for 40 years, and today, after 35 generations, the farm is home to a breed of tame foxes that look and act more like juvenile foxes and even Dickerson was both model and coach. His lessons covered every aspect of Jones’s intellectual growth and presentation of self, including schooling in what we now call “emotional intelligence.” Dickerson set the highest standards for Jones, especially in the area of communication skills—a facility we’ve found essential to leadership. Dickerson edited Jones’s early attempts at writing a sports column with respectful ruthlessness, in red ink, as Jones remembers to this day—marking up the copy so that it looked, as Jones says, “like something chickens had a fight over.” But Dickerson also took the time to explain every single mistake and why it mattered.

His mentor also expected the teenage Jones to speak correctly at all times and would hiss discreetly in his direction if he stumbled. Great expectations are evidence of great respect, and as Jones learned all the complex, often subtle lessons of how to succeed, he was motivated in no small measure by his desire not to disappoint the man he still calls “Mr. Dickerson.” Dickerson gave Jones the kind of intensive mentoring that was tantamount to grooming him for a kind of professional and moral succession—and Jones has indeed become an instrument for the profound societal change for which Dickerson fought so courageously as well. Jones found life-changing meaning in the attention Dickerson paid to him—attention fueled by a conviction that he, too, though only a teenager, had a vital role to play in society and an important destiny.
dogs than like their wild forebears. The physical changes in the animals are remarkable (some have floppy, dog-like ears), but what is truly stunning is the change neoteny has wrought in the human response to them. Instead of taking advantage of the fact that these neotenic animals don’t snap and snarl on the way to their deaths, their human keepers appear to have been recruited by their newly cute and endearing charges. The keepers and the foxes appear to have formed close bonds, so close that the keepers are trying to find ways to save the animals from slaughter.

Another story of a powerful mentor came to us from Michael Klein, a young man who made millions in Southern California real estate while still in his teens, only to lose it by the time he turned 20 and then go on to start several other businesses. His mentor was his grandfather Max S. Klein, who created the paint-by-numbers fad that swept the United States in the 1950s and 1960s. Klein was only four or five years old when his grandfather approached him and offered to share his business expertise. Over the years, Michael Klein’s grandfather taught him to learn from and to cope with change, and the two spoke by phone for an hour every day until shortly before Max Klein’s death.

The Essentials of Leadership

In our interviews, we heard many other stories of crucible experiences. Take Jack Coleman, 78-year-old former president of Haverford College in Pennsylvania. He told us of one day, during the Vietnam War, when he heard that a group of students was planning to pull down the American flag and burn it—and that former members of the school’s football team were going to make sure the students didn’t succeed. Seemingly out of nowhere, Coleman had the idea to preempt the violence by suggesting that the protesting students take down the flag, wash it, and then put it back up—a crucible moment that even now elicits tremendous emotion in Coleman as he describes that day.

There’s also Common Cause founder John W. Gardner, who died earlier this year at 89. He identified his arduous training as a Marine during World War II as the crucible in which his leadership abilities emerged. Architect Frank Gehry spoke of the biases he experienced as a Jew in college. Jeff Wilke, a general manager at a major manufacturer, told us of the day he learned that an employee had been killed in his plant—an experience that taught him that leadership was about much more than making quarterly numbers.
So, what allowed these people to not only cope with these difficult situations but also learn from them? We believe that great leaders possess four essential skills, and, we were surprised to learn, these happen to be the same skills that allow a person to find meaning in what could be a debilitating experience. First is the ability to engage others in shared meaning. Consider Sidney Harman, who dived into a chaotic work environment to mobilize employees around an entirely new approach to management. Second is a distinctive and compelling voice. Look at Jack Coleman’s ability to defuse a potentially violent situation with only his words. Third is a sense of integrity (including a strong set of values). Here, we point again to Coleman, whose values prevailed even during the emotionally charged clash between peace demonstrators and the angry (and strong) former football team members.

But by far the most critical skill of the four is what we call “adaptive capacity.” This is, in essence, applied creativity—an almost magical ability to transcend adversity, with all its attendant stresses, and to emerge stronger than before. It’s composed of two primary qualities: the ability to grasp context, and hardiness. The ability to grasp context implies an ability to weigh a welter of factors, ranging from how very different groups of people will interpret a gesture to being able to put a situation in perspective. Without this, leaders are utterly lost, because they cannot connect with their constituents. M. Douglas Ivester, who succeeded Roberto Goizueta at Coca-Cola, exhibited a woeful inability to grasp context, lasting just 28 months on the job. For example, he demoted his highest-ranked African-American employee even as the company was losing a $200 million class-action suit brought by black employees—and this in Atlanta, a city with a powerful African-American majority. Contrast Ivester with Vernon Jordan. Jordan realized his boss’s time was up—not just his time in power, but the era that formed him. And so Jordan was able to see past the insults and recognize his boss’s bitterness for what it was—desperate lashing out.

Hardiness is just what it sounds like—the perseverance and toughness that enable people to emerge from devastating circumstances without losing hope. Look at Michael Klein, who experienced failure but didn’t let it defeat him. He found himself with a single asset—a tiny software company he’d acquired. Klein built it into
Transoft Networks, which Hewlett-Packard acquired in 1999. Consider, too, Mickie Siebert, who used her sense of humor to curtail offensive conversations. Or Sidney Rittenberg’s strength during his imprisonment. He drew on his personal memories and inner strength to emerge from his lengthy prison term without bitterness.

It is the combination of hardiness and ability to grasp context that, above all, allows a person to not only survive an ordeal, but to learn from it, and to emerge stronger, more engaged, and more committed than ever. These attributes allow leaders to grow from their crucibles, instead of being destroyed by them—to find opportunity where others might find only despair. This is the stuff of true leadership.

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