The Quiet Way
By Marc Schewel

Presented to the Sphex Club of Lynchburg Oct. 31, 2013
Also published at http://myoccasionalpieces.blogspot.com/2013_06_01_archive.html

Arriving a few minutes late, I make a brief detour to the back of the large exhibit hall to grab a cup of coffee and a blueberry muffin before wending my way past the display booths to the meeting area, where three hundred fellow furniture retailers and suppliers sit either entranced or enervated by the conference moderator preparing to issue the day's first call to action.

Apparently, he has enlisted Roger Bannister to help him make his point, since at the same instant I hear the name I gaze skyward at one of the two movie-style screens flanking the stage, on which is displayed the grainy black-and-white newsreel of the first official sub-four-minute mile run some sixty years ago. According to our speaker, there was more to this iconic event than meets the eye, an elaborate -- and controversial -- backstory replete with mixed messages.

Bannister, it seems, had some help in his record-breaking feat, recruiting two Olympic runners as Amateur Athletic Association teammates in a sham match race against Oxford University that merely masked their carefully orchestrated assault on the elusive barrier.

As described by Richard Cavendish in *History Today* (2004), the bespectacled Chris Brasher set the pace for the first two laps at the prescribed 1:58 before yielding to the diminutive Chris Chataway, with "the far taller Bannister looming leanly behind him. On they went until the far straight of the last lap, when Bannister lengthened his stride, passed Chataway at speed, thundered majestically round the final bend," and broke the tape as the announcer solemnly intoned: "Time: three minutes and fifty-nine point four seconds." Chataway finished second and Brasher fourth.

Hailed as "the defining moment in British sporting history," was it, in fact, something more sinister? Pat Butcher, writing in *The Guardian*, May 4, 2004, calls the first sub-four "cosy, conniving, dishonest," and disastrous, because it established pacemaking as a legitimate tactic for middle-distance runners, including Hicham El Guerrouj in the 1999 and 2001 world championships and in the 2000 Olympics. While the practice is technically permissible -- since the International Association of Athletics Federations has determined that "honest competition" in a race no longer requires every contestant to try and win it -- Butcher says its questionable ethics have ruined the sport and penalized individual excellence.

That's one opinion, probably a minority one, and certainly not ascribed to by our fearless leader, who erupts with the underlying meaning of the grand collusion: "Nothing great was ever achieved by one person acting alone."

Turning to two innocent strangers sitting beside me, I am unable to restrain myself. "I'm not sure I agree

with that statement," I say, "which sounds good, but is hardly credible, and perpetuates a myth more expressive of our contemporary culture of collaboration than of the reality of progress and innovation." (Well, those weren't my exact words, as astute readers will easily ascertain.)

Stephen Wozniak had dreamed of building a computer small and simple enough to use at home ever since he read about the invention of the first machine at the age of eleven. Fourteen years later, attending a meeting of the Homebrew Computer Club in Menlo Park, California, he listened quietly while other members marveled at an unwieldy do-it-yourself contraption called the Altair 8800. Returning to his cubicle at Hewlett-Packard, he worked alone in the early morning and late evening hours, poring over engineering magazines, studying chip manuals, and testing designs in his head. After six months of solitary mental experimentation, on June 29, 1975, around 10:00 p.m., he hit a few letters on the keyboard of his prototype -- and their images appeared on the screen before him. (Cain, p. 73)

In his memoir *iWoz*, Wozniak offered this philosophy about the creative process: "Most inventors and engineers I've met are like me -- they're shy and they live in their heads. They're almost like artists. In fact, the very best of them *are* artists. *And artists work best alone* where they can control an invention's design without a lot of other people designing it for marketing or some other committee. I don't believe anything revolutionary has ever been invented by committee." (Cain, p. 73)

"Who Made That?" shouts the headline of the June 9th issue of *The New York Times Magazine*, which is devoted almost exclusively to the origins of a wide range of curious objects, most of which were the brainchilds of single individuals trying to solve their own problems. Among the most notable are Johnson and Johnson employee Earle Dickson, who in 1920 layered together gauze, surgical tape, and a strip of crinoline to form a Band-Aid to protect his wife's frequent kitchen injuries; Italian doctor Gabriello Fallipio who in the mid-1500's demonstrated that a linen sheath, or condom, fitted to the penis could prevent the transmission of syphilis; Swedish engineer Einar Egnell, who in the 1940's modeled an efficient, painless, electrical breast pump after the sophisticated cow-milking machines found on dairy farms; and John Williamson, who in the 1920's stuffed a condom with some lightweight, ultra-absorbent, Kimberly-Clark Cellucotton, cut off the end, and called it a tampon, which, however, was not marketable until Earle Haas devised a telescoping cardboard applicator in 1931.

And yet, despite such evidence to the contrary, teamwork has become the mandatory operating system of the classroom, factory, and office. In her 2012 groundbreaking study *Quiet: The Power of Introverts in a World That Can't Stop Talking*, Susan Cain calls this phenomenon the New Groupthink. Its advocates insist that "creativity and intellectual achievement come from a gregarious place." (Cain, p. 75)

" 'Innovation -- the heart of the knowledge economy -- is fundamentally social,' writes the prominent journalist Malcolm Gladwell. 'None of us is as smart as all of us,' declares the organizational consultant Warren Bennis, in his book *Organizing Genius* . . . 'Many jobs that we regard as the province of a single mind actually require a crowd,' muses Clay Shirky in his influential work *Here Comes Everybody*." (Cain, pp. 75-76)

Today virtually all U.S. organizations use teams; ninety-one percent of high-level managers consider them the keys to success, according to a recent survey. Over seventy percent of today's employees are ensconced in open offices, in which no one has a room of his own and average personal work space has shrunk from 500 to 200 square feet since 1970. (Cain, p. 76)

The New Groupthink is taking over the nation's classrooms. In many elementary schools, during at least half the day, the traditional rows of seats facing the teacher have been replaced with desk pods to facilitate group learning, even for self-contained subjects like math and creative writing. This cooperative approach introduces children at a young age to the team culture of corporate America. It "reflects the business community," says a Manhattan fifth-grade teacher, "where people's respect for others is based on their verbal abilities, not their originality or insight . . . It's an elitism based on something other than merit." (Cain, p. 77)

The limitations of Groupthink are evident in the prototypical -- and flawed -- corporate team exercise known as brainstorming, in which theoretically uninhibited coworkers generate a multitude of free associative ideas in a nonjudgmental atmosphere. In 1963, in a study conducted by University of Minnesota psychology professor Marvin Dunnette, forty-eight research scientists and forty-eight advertising executives came up with more and higher quality ideas by themselves than when they deliberated in groups of four. (Cain, p. 88)

Forty years of research have confirmed those results, and in fact demonstrated that performance deteriorates as group size increases. Organization psychologist Adrian Furnham says that "business people must be insane to use brainstorming . . . If you have talented and motivated people, they should be encouraged to work alone when creativity or efficiency is the highest priority." (Cain, pp. 88-89)

Psychologists have offered three explanations for their contrarian findings: participants socially loaf, or sit back and let others do the work; their own production may be blocked as they are forced to listen passively while another person talks; and they apprehend being evaluated and possibly humiliated before their peers. (Cain, p. 89)

Contributing to the discussion may be futile if one's voice lacks conviction. In a Harvard Business School class, teams were asked to rank in importance to their survival fifteen items salvaged from a plane crash in the subarctic region of Quebec. One team included a young man with extensive experience in the nothern backwoods, but his recommendations were ignored because he spoke too quietly. "Our action plans hinged on what the most forceful people proposed," recalled one student. "When the less vocal put out ideas that might have kept us alive and out of trouble, those ideas were rejected." (Cain, pp. 49-50)

Neuroscience experiments suggest that groups may act like mind-altering substances. Brain scans performed on game players who in a group test gave different (and conforming but incorrect) answers than they did when working independently indicate that they did so not because they feared ostracism or condemnation, but because their perception of the problem had actually changed. (Cain, pp. 90-92)

Anders Ericsson has determined that solo practice or study is the strongest predictor for excellence in fields as diverse as chess, tennis, piano, and violin. Only when the athlete, student, or musician is alone can he engage in Deliberate Practice, which involves identifying stretch goals, striving to upgrade performance, monitoring progress, and making adjustments. Only alone can he summon the intense concentration and self-generated motivation required to absorb information and refine his skills. Only alone can he go directly to the part that's challenging him. "If you want to improve what you're doing," says Ericsson, "you have to take the first step yourself." (Cain, pp. 80-81)

Similarly, the model of the exuberant, larger-than-life corporate executive is hardly universal; two familiar exceptions are Bill Gates and Charles Schwab. "Among the most effective leaders I have encounterted and worked with in half a century," writes management guru Peter Drucker, "some locked themselves in into their office and some were ultra-gregarious . . . The one and only personality trait they all had in common was something they did not have: charisma and any use for the term or what it signifies." (Cain, p. 53)

In his influential book *Good to Great*, Jim Collins concludes that many of the best-performing companies of the late twentieth century were run by Level 5 Leaders -- "exceptional CEOs known not for their flash or charisma but for extreme humility coupled with intense professional will," and often described by their subordinates as "quiet, modest, reserved, shy, gracious, mild-mannered, self-effacing, and understated." (Cain, pp. 54-55)

Research conducted by Wharton professor Adam Grant has provided insight into how a seemingly retiring personality translates into effective leadership. An inclination to listen to others and a lack of interest in dominating social situations make introverts more receptive to the suggestions of initiative-takers in their organization. Benefiting from the talents of their followers, they encourage them to become even more entrepreneurial, creating a virtuous cycle of proactivity. More intent on control and self-promotion, extroverts tend to drown out others' good ideas and allow workers to drift into passivity. (Cain, p. 57)

Groupthink, then, and the myth of charisma are just two manifestations -- and particularly perverse ones -- of a cultural movement which has been evolving since the early 1900's; a movement which glorifies the qualities of sociability, assertiveness, and loquacity over those of comfortable privacy, introspection, and reserve; a movement which has elevated the extroverted personality to the ideal type at the expense of its introverted opposite.

Schoolteachers, counselors, consultants, mentors, peers are all touting the same mantra: "to be great is to be bold; to be happy is to be sociable." It is a value system defined by the "omnipresent belief that the ideal self is gregarious, alpha," and enjoys the spotlight; that "he prefers action to contemplation, risk-taking to heed-taking, certainty to doubt"; that he has a fluency with words, which rates him as "smarter, better-looking, more interesting, and more desirable as a friend." (Cain, pp. 3-4)

It is a mistake, however, says author Cain, "to embrace the Extrovert Ideal" so wholeheartedly. In spite of their relegation to second-class status in contemporary society, introverts still have much to contribute to their friends, families, professions, and communities.

.

And that's good news for deep-rooted ones like me.

I didn't rack up a perfect score on Cain's personality test, but fifteen "trues" out of twenty possibilities put me squarely in the introverted bull's eye: I prefer one-on-one conversations to group activites; I prefer to express myself in writing; I enjoy solitude; I seem to care less than my peers about wealth, fame, and status; I dislike small talk; I'm not a big risk-taker; I enjoy work that allows me to be engaged with few interruptions; I like to celebrate birthdays on a small scale (or not at all); I prefer not to show or discuss my work with others until it's finished; I dislike conflict; I do my best work alone; I tire easily of socializing even if I've enjoyed myself; I often let calls go to voice mail (and then ignore them); I often prefer a weekend with nothing to do to one fully scheduled; I can concentrate easily. (Cain, pp. 13-14)

Many of the introverts whom Cain describes or quotes remind me of someone I know all too well -- myself.

Like the reserved adolescent Tom, who was shy as a child, excels in school, is watchful, quiet, and prone to worry, and loves learning on his own and thinking about intellectual problems. (Cain, p. 100)

Or Al Gore, who needs a rest after a reception or event with a hundred other people, says a former aide, because he will emerge with less energy than he had going in. (Cain, pp. 149-150)

Or Warren Buffett, who used to dread public speaking until he took a Dale Carnegie course. (Cain, p. 177)

Or Harvard professor Brian Little, who spends his spare time reading or writing articles, who prefers one-on-one to group encounters, who will often excuse himself at parties for a "breath of fresh air," and who can become ill (in my case, irritable) if forced to spend to much time in social situations. (Cain, pp. 206-207)

Or Alex, the head of a financial services company, who tells the author, "I could go years without having any friends except for my wife and kids . . . You're one of my best friends, and how many times do we actually talk -- when you call me." (Cain, p. 211)

Or Emily, who's always been attracted to extroverts because they "do all the work of making conversation," and who would rather sit next to her spouse reading after a demanding day on the job than go out for dinner. (Cain, pp. 227-228)

Or the unassuming salesman Jon, who with a thoughtful expression on his bespectacled face says, "If I'm in a room with ten people and I have a choice between talking and not talking, I'm the one not talking."

(Cain, pp. 237-238)

Or David, a drummer and music journalist, who says, "I was in sixth grade when *Revenge of the Nerds* came out, and I looked like I stepped right out of the cast. I knew I was intelligent . . . If you're a good-looking person and an athlete, you're not gonna get hassled. But if you seem too smart, that's not something the kids respect you for. They're more likely to beat you down for it." Because for introverts like David -- and me -- "adolescence is the great stumbling place, the dark and tangled thicket of low self-esteem and social unease." (Cain, p. 261-263)

Or the author's grandfather, who loved to read, and would sit for a large part of every day at his kitchen table and sip Lipton tea, his attention riveted to the book propped open before him on the white cotton tablecloth. (Cain, p. 267)

Or the author herself, who "went away to summer camp at the age of ten and watched as a girl with thick glasses refused to put down her book on the all-important first day and instantly became a pariah," while she left her own paperbacks in her suitcase to hide her own bookishness and shyness. (Cain, p. 268)

Or thousands of bloggers, who are able to express online their most intimate experiences, thoughts, and emotions but which they may be too reticent or inhibited to communicate conversationally. (Cain, p. 63)

While early Americans may have admired voluble revolutionaries waxing eloquently on the subject of liberty, action-oriented freedom fighters and fearless frontiersmen, and mesmerizing revivialist ministers who could arouse their somnolent audiences to a frenzy, a generalized and intensive bias favoring such effusive behavior is a relatively recent phenomenon, the product of an evolution in the American ethos that dates from the turn of the twentieth century, when the Culture of Personality superseded the Culture of Character. (Cain, p. 21)

Prior to that shift, "the ideal self was serious, disciplined, and honorable; what counted was not so much one's public image but how he behaved in private." Afterward, the higher value came to reside in how one was perceived by others, and thus the social role demanded of him was that of a performer. (Cain, p. 21)

Much of the change was driven by demographics. When Americans lived on farms or in small towns, their interactions were limited to people they had known all their lives. But when the storm of big business, industrialization, and immigration blew large populations into cities, they found themselves no longer working with neighbors but with strangers. Citizens transitioning into employees faced the question of how to make a good impression on someone with whom they had no family or civic ties. (Cain, pp. 20-21)

In an effort to sell themselves and refine their outer charm, many turned to self-help guides, which offered advice on "what to say and how to say it," as one manual put it. "To create a personality is

power," instructed another. "Try in every way to have a ready command of the manners which make people think [you are] 'a mighty likeable fellow,' " said a third. Women facing a courtship much more competitive than their grandmothers had known were urged to perfect a mysterious quality called "fascination." (Cain, pp. 22-23)

Child guidance experts and teachers of the 1920's set about helping children overcome their dreaded shyness and develop the winning, outgoing personalities that would bring social and financial success. When well-meaning parents of the midcentury discouraged their children from solitary and serious hobbies, like classical music, that might make them unpopular, they were only preparing them for the "real world," for colleges and a job market in which gregariousness was an admission standard. (Cain p. 27)

After all, Harvard, declared its provost Paul Buck, must reject the "sensitive, neurotic" candidate and the "intellectually over-stimulated" in favor of the "healthy extrovert," who may graduate into the ideal company man at a place like IBM, where the sales force gathered every morning to belt out the corporate anthem, "Ever Onward," and to harmonize on the "Selling IBM" song, set to the tune of "Singin' in the Rain." (Cain, p. 28)

The societal revolution that one hundred years ago enshrined extroversion as the Western cultural ideal has not yet reached the Pacific Rim. A map of the world drawn by reseach psychologist Robert McCrae and shaded by personality type reveals a picture that "is quite clear: Asia . . . is introverted, Europe [and the United States] are extroverted." (Cain, p. 186)

One study comparing eight- to ten-year-olds in Shanghai and southern Ontario found "that shy and sensitive children are shunned by their peers in Canada but make sought-after playmates in China, where they are also more likely to be considered for leadership roles . . . Similarly, Chinese high school students tell researchers that they prefer friends who are 'humble' and 'altruistic,' 'honest' and 'hard-working,' while their American counterparts seek out the 'cheerful,' 'enthusiastic,' and 'sociable.' " (Cain, p. 187)

At Monta Vista High School in Cupertino, California, where seventy-seven percent of the senior class is Asian-American, the most highly-regarded kids are not necessarily athletic or vivacious, but studious and even quiet. The average combined score of students who took the SAT in 2009 was 1916 out of 2400, twenty-seven percent higher than the national number. The library in Cupertino is what the mall or soccer field is in other localities: an unofficial nucleus of town life. "Introversion is not looked down upon," says guidance counselor Purvi Modi. "It is accepted . . . [and] in some cases even highly respected and admired." (Cain, pp. 182-183)

In a standardized math and science test given to kids around the world, forty percent of fourth graders in Singapore and Hong Kong and forty percent of eighth graders in Singapore, Korea, and Taiwan achieved superstar status compared to the international median of five percent. They were also more likely than their peers to complete a lengthy, tedious questionnaire about themselves -- which indicates

that they possess the ability to suppress external stimuli, sustain attention, and commit to the quiet persistence that lies at the heart of academic excellence. (Cain, pp. 200-201)

If Westerners are indoctrinated that "the squeaky wheel gets the grease," the Asian attitude that "talk is for communicating need-to-know information and that reserve and introspection are signs of deep thought and higher truth" is epitomized in Lao Zi's proverb: "Those who know do not speak; those who speak do not know." (Cain, pp. 187-188)

Some of this difference stems from a Western paradigm centered around the individual, whose destiny is to express himself and to fulfill his unique purpose on earth. Asians "see themselves as part of a greater whole -- whether family, corporation, or community -- and place tremendous value on harmony within their group." Thus, it makes sense that the former would value boldness and verbal skill while the latter would prize quiet, humility, and sensitivity -- and that social anxiety in Japan would arise not from excessive worry about embarrassing *oneself*, as in the United States, but about embarrassing *others*. (Cain, pp. 188-190)

If in China a quiet person is viewed as wise, in the United States, according to Taiwanese-born communications professor Preston Ni, "you need style as well as substance . . . to get ahead. It may not be fair . . . 'but if you don't have [showmanship] you can be the most brilliant person in the world and you'll still be disrespected.' " (Cain, pp.194-195)

Adapting one's personality type to conform to the prevailing mores is not a simple proposition. As defined by psychologists, temperament refers to behavior and emotions observable in infants and young children; personality is the mature product of those patterns as they have been shaped by culture and experience. And temperament, as it turns out, has congenital, biological origins. (Cain, p. 101)

In one of several groundbreaking, longitudinal studies, Harvard psychologist Jerome Kagan gathered five hundred four-month-old infants in his laboratory and exposed them to a carefully chosen set of new experiences: tape-recorded voices, popping balloons, colorful mobiles, the scent of alcohol. About twenty percent were "high-reactive," crying lustily and waving their arms and legs. About forty percent were "low-reactive," remaining quiet and placid. The remaining forty percent fell between the two extremes. (Cain, pp. 99-100)

Kagan made the startingly counterintuitive prediction "that the infants in the high-reactive group -- the lusty arm-pumpers -- would most likely grow into quiet teenagers." (Cain, p. 100)

At ages two, four, seven, and eleven, many of the children returned to the lab for follow-up testing of their reactions to new people and events. Most turned out exactly as Kagan had expected. The high-reactive infants were serious and careful; the low-reactive infants were relaxed and confident. In other words, high and low reactivity tended to correspond to introversion and extroversion. (Cain, p. 100)

How was Kagan able to be so prescient? In addition to measuring his subjects' behavior in strange

situations, he monitored their heart rates, blood pressure, finger temperature, and other properties of the nervous system -- all of which are controlled by a potent organ in the brain called the amygdala. One of the functions of the amygdala is to detect novelties or threats in the environment -- like a screaming line drive foul ball or a hissing serpent -- and signal the body how to respond. (Cain, pp. 101-102)

"Kagan hypothesized that the infants born with especially excitable amygdalae would wiggle and howl when shown unfamiliar objects," would feel more stressed when confronted by something new and stimulating, and would more likely grow up to be vigilant and cautious when meeting new people. Often disparaged as anti-social or misanthropic as adults, they are merely more sensitive to their surroundings. And it's a sensitivity "linked not only to noticing scary things, but to noticing in general." (Cain, pp. 102-103)

Evidence indicates that introverts *are* more sensitive than extroverts to various kinds of stimulation, from coffee to a loud bang to background noise, and that each type needs different levels to perform at his best. For example, "introverts prefer shutting the doors to their offices and plunging themselves into their work, because for them this sort of quiet intellectual immersion is optimally stimulating, while extroverts function best when engaged in higher-wattage activities like organizing team-building workshops or conducting meetings." (Cain, pp. 122-124)

Cain urges her reader to manage his leisure time according to his "optimal levels of arousal" or "sweet spots," moving from one to another as he becomes under- or over-stimulated -- moving from lying on a couch reading a book, to having a cocktail with a friend, to being enticed to join a boisterous birthday party, to retreating to a solitary basketball game telecast. (Cain, p. 125)

While Professor Kagan believes that nurturing, physical health, and other environmental factors significantly impact the development of personality beyond childhood -- that they can produce an introvert-extrovert type contrary to one's early level of reactivity -- further experiments conducted by one of his proteges, Dr. Carl Schwartz, have demonstrated that the footprint of a high- or low-reactive temperament persists into adulthood. When the subjects of Kagan's studies -- now grown up -- were shown a series of photos of disembodied black-and-white heads flashing before them at an increasingly rapid pace, the amygdalae of the formerly high-reactive children turned out to be more sensitive than the amygdalae of their more tranquil counterparts, even if they had matured into social fluidity and competence. (Cain pp. 107, 117)

As mammals became more complex, an area of the brain developed called the frontal cortex; besides enabling humans to make decisions and contemplate abstract matters, it operates to soothe unwarranted fears, principally by overriding activity in the amygdala. "But the frontal cortex is not all-powerful; it doesn't switch off the amygdala altogether . . . which explains why many high-reactive children retain some of the fearful aspects of their temperament all the way into adulthood," why free will can affect personality but cannot infinitely overcome its genetic limitations, and why "Bill Gates will never be Bill Clinton, no matter how much he polishes his social skills, and Bill Clinton will never be Bill Gates, no matter how much time he spends alone with computer." (Cain, p. 118)

Actually, neither would want to be other. The important point is, of course, to be comfortable in one's own skin, and intimidated introverts can be cheered by the findings of psychologist Elaine Aron, who was driven to her research by her perception of herself as overly sensitive, strangely intense, beset by powerful emotions, both positive and negative, and deeply flawed. She set out to illuminate "the inner behavior of someone whose most visible feature is that when you take him to a party he isn't very happy about it." (Cain, pp. 135-136)

After compiling the results of interviews with thirty-nine self-selected introverts and the responses to a questionnaire submitted to disinterested parties, Aron identified twenty-seven attributes of "highly sensitive" people.

Some were familiar from Kagan's and others' work, like being diligent and cautious before acting, exhibiting a heightened responsiveness to sights, sounds, smells, and pain, and manifesting discomfort when being observed at a task or judged for worthiness. (Cain, p. 136)

"But there were also new insights. The highly sensitive tend to be philosophical or spiritual . . . rather than materialistic or hedonistic. They dislike small talk. They often describe themselves as creative or intuitive . . . They love music, nature, art, physical beauty. They feel exceptionally strong emotions -- sometimes soaring bouts of joy, but also sorrow, melancholy, and fear." (Cain, p. 136)

Aron also found that sensitive people are highly empathetic. "They tend to have unusually strong consciences. They avoid violent movies and TV shows. They are acutely aware of the consequences of a lapse in their own behavior. In social settings they often focus on subjects like personal problems, which acquaintances may find 'too heavy.' " (Cain, p. 137)

Representative of the type, frequently found in literature, is the quiet and cerebral author protagonist of Eric Malpass's novel *The Long Long Dances*. He "had gone through life with one skin fewer than most men . . . The troubles of others moved him more, as did also the teeming beauty of life: moved him, compelled him, to seize a pen and write about them." (Cain, p. 141)

Malpass's "thin-skinned" metaphor was more felicitous than he knew. Skin conductance tests, which measure physical responses to noises, strong emotions, and other stimuli, have proven that low-reactive extroverts sweat less than high-reactive introverts; their skin is literally "thicker," more impervious to stimuli, and cooler to the touch, which may account for the notion that they are indeed "cool," more adept socially than their nervous counterparts. The latters' exaggerated perspiration pattern may even make them more likely to record false positives on lie detector tests. (Cain, pp. 141-142)

If the bold and aggressive are assumed generally to prevail, how did the highly-sensitive manage to survive the harsh sorting-out process of evolution? Dr. Aron believes they were selected not for the trait itself but for the careful, reflective style that tends to accompany it, which involves observing judiciously before acting, "looking before you leap," as opposed to the more risky behavior of "taking a long shot"

without complete information. (Cain, p. 145)

Scientists have discovered more than a hundred animal species which are divided between members who are "slow to warm up," who "watch and wait," and others who "just do it," who recklessly venture forth oblivious to their surroundings. As Aron explains, it makes sense that herds of antelope which contain outliers who interrupt their grazing to scope out predators would have a better chance of survival and would "continue to breed and . . . have some sensitive individuals born into the group." (Cain, pp. 145, 148-149)

If the amygdala of a high-reactive introvert is more sensitive than average to novelty, extroverts seem to be more susceptible to the reward-seeking cravings of another part of the brain, its "pleasure center," or nucleus accumbens. In fact, their ambitious striving for economic, political, and hedonistic fulfillment may be their defining characteristic. Extroverts tend to experience more pleasure and excitement than introverts; as valuable resources are pursued and captured, these emotions are activated and intensified, culminating in a "rush" or "buzz." Either their brains are more responsive to dopamine -- the neurotransmitting chemical that drives information through the reward network -- or they have more dopamine available for release. (Cain, pp. 159-160)

By contrast, introverts don't buzz as easily. They will "be drawn from time to time by sex, parties, and status, but the kick they get will be relatively small." (Cain, p. 161)

Buzz can cause extroverts to engage in extremely risky behavior, to ignore important warning signs. Focused on achieving their goals, they have been shown in experiments to speed up decision-making in the face of repeated failures rather than pause and reflect on their errors. Introverts, on the other hand, are constitutionally programmed to downplay reward, to kill their buzz, and scan for stumbling blocks. They seem to be wired to reset when they get too excited and to exercise more vigilance. (Cain, pp. 166-167)

Their restraint pays off intellectually. They get worse grades than extroverts in elementary school, but outperform them in high school and college. In a study testing 141 college students' knowledge of twenty subjects, from art to astronomy to statistics, introverts knew more about every one of them. They receive disproportionate numbers of graduate degrees, National Merit Scholarship positions, and Phi Beta Kappa keys. (Cain, p. 167)

But introverts are not smarter than extroverts. They just seem to think more carefully. In contrast to extroverts' "quick-and-dirty" approach to problem-solving, they will digest information thoroughly, stay on task longer, give up less easily, and work more accurately. (Cain, p. 168)

And because they are less motivated by reward, they are more inclined to pursue activities -- often solitary -- for their own sake, to enter the state of intensive engagement totally independent of social environment which psychologist Mihaly Csikszentmihalyi calls "flow." (Cain, p. 172)

"Psychological theories usually assume we are motivated either by the need to eliminate an unpleasant condition like hunger or fear," writes Csikszentmihalyi, "or by the expectation of some future reward such as money, status, or prestige." But in flow, "a person could work around the clock for days on end [with boundless energy], for no better reason than to keep on working." (Cain, p. 172)

In July 1999, at the height of the dot-com bubble, legendary Warren Buffett -- a self-styled introvert, who has practiced intellectual persistence, prudence, and risk-assessment to amass his billion-dollar fortune -- was asked to deliver the keynote address at the star-studded conference hosted by the investment bankers Allen & Co. in Sun Valley, Idaho. In a forecast dismissed by many as antiquarian, having analyzed the data, identified warning signals, and reflected on their meaning, he told the crowd in painstaking detail why the tech-fueled bull market wouldn't last. Within a year, of course, he was vindicated; refusing to be seduced by speculative frenzy and follow the herd, he had remained true to his instinctual "inner scorecard." (Cain, pp. 176-177)

In recent years, Buffett has come to relish the limelight as the Oracle of Omaha, appearing frequently on television, dispensing wisdom on economics, politics, and sports, and orchestrating his own stockholders' extravaganza showcasing his diverse family of companies. He has mastered the art of acting out of character in certain social situations, of showing a different side of himself to distinct groups whose opinions he highly values, to paraphrase the psychologist William James. How is it that "true-blue" introverts -- like Buffett and your faithful scribe -- are able to transform themselves like chameleons into pseudo-extroverts almost at the flip of a switch? That is the subject of another blog. (Cain, pp. 205, 209)

REFERENCE

Cain, Susan. *Quiet: The Power of Introverts in a World That Can't Stop Talking*. New York: Broadway Paperbacks, 2013.