CHAPTER ONE

lonely in a social world

Katie Bishop grew up surrounded by aunts and uncles, grandparents and cousins, in a small community that was nothing if not closely knit. Between family events, church events, sports, and music, her entire childhood was spent among the same friendly people. Truth be told, she could hardly wait to get away. Despite all the togetherness, she always felt a little out of it, and by the time she graduated from high school she was ready for a change. She did not have enough money to go away for college, so for the next four years she lived at home and commuted. But the moment she had her degree, she moved about as far away as she could to take a job in the software industry.

Katie's new career required her to spend weeks at a time hopping around from city to city. She still talked to her mother and her sister once or twice a week, but now the contact was mediated through her Blackberry, her laptop, or the phone in her kitchen. After six months of this very different routine she realized that she was not sleeping well. In fact, her whole body seemed to be off. If a cold or flu bug was anywhere in her vicinity, she would catch it. When she wasn't traveling or working long hours, or taking yoga classes to try to deal with the back and neck pain from traveling and working those long hours, she spent a great deal of time in front of the TV, eating ice cream straight from the carton.

Six months into her new, independent life, Katie Bishop was fifteen pounds heavier and truly miserable. She didn't just feel fat, she felt ugly. And after an unpleasant run-in at the home office and a spat with one of her neighbors, she was even beginning to wonder if she would ever be socially acceptable outside the little town that had made her feel so trapped.

It doesn't take a degree in psychology to figure out that Katie Bishop was lonely. But Katie's loneliness was more than just the mild heartache that fuels pop songs and Miss Lonelyhearts columns. Katie was dealing with a serious problem that has deep roots in her biology as well as her social environment. It began with a genetic predisposition that set her standards for social connection very high, although we might also express it as a high sensitivity to feeling the absence of connection. There is certainly nothing wrong with having high standards, but this physiological need, set against an environment that failed to satisfy that need, was beginning to distort her perceptions and her behavior. It was also setting in motion a series of cellular events that might seriously compromise her health.

While growing up in that tightly knit community, Katie never gave much thought to social connection one way or the other. As a kid she could be cranky at times, a little difficult, and sometimes her parents assumed she was depressed. One of her English teachers, assigning it almost as a badge of honor, described Katie as "alienated." A more accurate description would have been that, even as a kid, even while surrounded by family and other friendly people, Katie had always felt a subjective sense of social isolation. By Katie's internal measure, the connections in her world seemed somehow fragile and distanced. She could not consciously articulate what was bothering her, but as soon as she could, she opted for a dramatic change of scene. She thought that being entirely on her own would be just what she needed. In fact, what she needed was not *less* social connection, but connection that felt more meaningful—a level of connection that matched her genetically biased predisposition.

Almost everyone feels the pangs of loneliness at certain moments. It can be brief and superficial—being the last one chosen for a team on the playground—or it can be acute and severe—suffering the death of a spouse or a dear friend. Transient loneliness is so common, in fact, that we simply accept it as a part of life. Humans are, after all, inherently social beings. When people are asked what pleasures contribute most to happiness, the overwhelming majority rate love, intimacy, and social affiliation above wealth or fame, even above physical health.[1] Given the importance of social connection to our species, then, it is all the more troubling that, at any given time, roughly twenty percent of individuals—that would be sixty million people in the U.S. alone—feel sufficiently isolated for it to be a major source of unhappiness in their lives.[2]

This finding becomes even more compelling when we consider that social isolation has an impact on health comparable to the effect of high blood pressure, lack of exercise, obesity, or smoking.[3] Our research in the past decade or so demonstrates that the culprit behind these dire statistics is not usually being literally alone, but the subjective *experience* known as loneliness. Whether you are at home with your family, working in an office crowded with bright and attractive young people, touring Disneyland, or sitting alone in a fleabag hotel on the wrong side of town, chronic *feelings* of isolation can drive a cascade of physiological events that actually accelerates the aging process. Loneliness not only alters behavior but shows up in measurements of stress hormones, immune function, and cardiovascular function. Over time, these changes in physiology are compounded in ways that may be hastening millions of people to an early grave.

To measure a person's level of loneliness, researchers use a psychological assessment tool called the UCLA Loneliness Scale, a list of twenty questions with no right or wrong answers. It is reproduced here as Figure 1. The questions are not based on information but on very common human feelings. When I refer to people who are lonely or "high in loneliness," I mean those who, regardless of their objective circumstances, score high on this pencil-and-paper test.

If you would like to take the test yourself, I explain how to score it in note 4 on page 271.[4]

*1. How often do you feel that you are "in tune" with the people around you? ____
2. How often do you feel that you lack companionship? ____
3. How often do you feel that there is no one you can turn to? ____
4. How often do you feel alone? ____
*5. How often do you feel part of a group of friends? ____
*6. How often do you feel that you have a lot in common with the people around you? ____
7. How often do you feel that you are no longer close to anyone? ____
8. How often do you feel that your interests and ideas are not shared by those around you? ____
*9. How often do you feel outgoing and friendly? ____
*10. How often do you feel close to people? ____
11. How often do you feel left out? ____
12. How often do you feel that your relationships with others are not meaningful? ____
13. How often do you feel that no one really knows you well? ____
14. How often do you feel isolated from others? ____
*15. How often do you feel you can find companionship when you want it? ____
*16. How often do you feel that there are people who really understand you? ____
17. How often do you feel shy? ____
18. How often do you feel that people are around you but not with you? ____
*19. How often do you feel that there are people you can talk to? ____
*20. How often do you feel that there are people you can turn to? ____

FIGURE 1. The UCLA Loneliness Scale (version 3). From Daniel W. Russell, "UCLA Loneliness Scale (version 3): Reliability, validity, and factor structure," *Journal of Personality Assessment* 66 (1996). Used with permission.

Keep in mind, however, that we can all slip in and out of loneliness. Feeling lonely at any particular moment simply means that you are human. In fact, a sizable portion of this book is devoted to demonstrating that the need for meaningful social connection, and the pain we feel without it, are defining characteristics of our species. Loneliness becomes an issue of serious concern only when it settles in long enough to create a persistent, self-reinforcing loop of negative thoughts, sensations, and behaviors.

Keep in mind, too, that feeling the pain of isolation is not an unalloyed negative. The sensations associated with loneliness evolved because they contributed to our survival as a species. "To be isolated from your band," wrote John Bowlby, the developmental psychologist who pioneered attachment theory, "and, especially when young, to be isolated from your particular caretaker is fraught with the greatest danger. Can we wonder then that each animal is equipped with an instinctive disposition to avoid isolation and to maintain proximity?"[5]

Physical pain protects the individual from physical dangers. Social pain, also known as loneliness, evolved for a similar reason: because it protected the individual from the danger of remaining isolated. Our forebears depended on social bonds for safety and for the successful replication of their genes in the form of offspring who themselves survived long enough to reproduce. Feelings of loneliness told them when those protective bonds were endangered or deficient. In the same way that physical pain serves as a prompt to change behavior—the pain of burning skin tells you to pull your finger away from the frying pan—loneliness developed as a stimulus to get humans to pay more attention to their social connections, and to reach out toward others, to renew frayed or broken bonds. But here was a pain that prompted us to behave in ways that did not always serve our immediate, individual self-interest. Here was a pain that got us outside ourselves, widening our frame of reference beyond the moment.

In English, we have a word for pain and a word for thirst, but no single, specific terms that mean the opposite. We merely reference the absence of these aversive conditions, which makes sense,

because their absence is considered part of the normal state. Our research suggests that "not lonely"—there is no better, more specific term for it—is also, like "not thirsty" or "not in pain," very much part of the normal state. Health and well-being for a member of our species requires, among other things, being satisfied and secure in our bonds with other people, a condition of "not being lonely" that, for want of a better word, we call social connection.

And this idea of loneliness as social pain is more than a metaphor. Functional magnetic resonance imaging (fMRI) shows us that the emotional region of the brain that is activated when we experience rejection is, in fact, the same region—the dorsal anterior cingulate—that registers emotional responses to physical pain (see Figure 2).

The discovery that feelings of social rejection (isolation) and reactions to physical pain share the same hardware begins to suggest why, once loneliness becomes chronic, you cannot escape it merely by "coming out of your shell," losing weight, getting a fashion makeover, or meeting Mr. or Ms. Right. The pain of loneliness is a deeply disruptive hurt. The disruption, both physiological and behavioral, can turn an unmet need for connection into a chronic condition, and when it does, changing things for the better requires taking into account the full depth and complexity of the role loneliness plays in our biology and in our evolutionary history. Following Katie Bishop's lead and trying to make ourselves feel better with fatty foods and reruns of *Friends* will only make matters worse.

Connecting the Dots

I have been working for more than thirty years to unravel how our brain and body are intertwined with our social responses. I teach psychology at the University of Chicago, and I direct the Center for Cognitive and Social Neuroscience there. I am also fortunate to be part of a widespread network of partners in this research. These

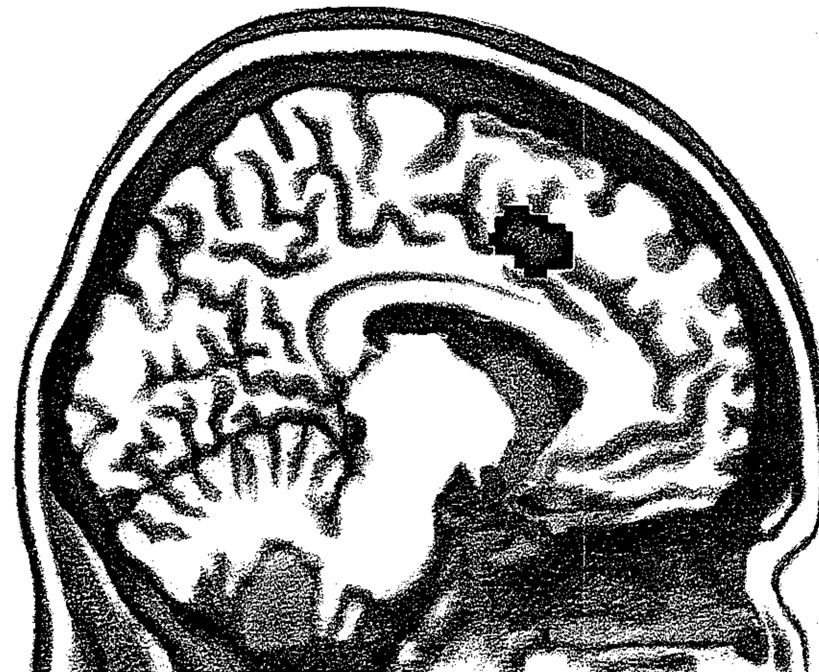

FIGURE 2. The human brain reacting to social pain. The dark rectangular blotch near the top of the brain represents the activation of the dorsal anterior cingulate cortex in response to social rejection. The brain responds similarly to physical pain. Adapted from N. I. Eisenberger, M. Lieberman, and K. D. Williams, "Does rejection hurt? An fMRI study of social exclusion," *Science* 302 (10 October 2003): 290–292.

include present and former colleagues at The University of Chicago and the Ohio State University, as well as a team of psychologists and psychiatrists, sociologists and biostatisticians, cardiologists and endocrinologists, behavioral geneticists and neuroscientists called the MacArthur Mind-Body Network; a similarly diverse team called the MacArthur Aging Society Network; and the Templeton–University of Chicago Research Network, whose members, ranging from neurologists to theologians, from biostatisticians to philosophers, work together to try to understand the links between our physiological responses and our social and even spiritual strivings.

Bringing together researchers from so many diverse fields has enabled us to look closely at each piece of the puzzle, but also to step back and consider the big picture in an integrated way. Some of my colleagues have taken brain scanning beyond the pathway for pain to identify the specific brain regions involved in empathy.[6] Other studies relying on fMRI show us that when we humans see other humans, or even pictures of humans, our brains respond in a way that is different from when we see most other types of objects.[7] (Interestingly, pet owners who really love their animals will show a glimmer of this brain response when shown a picture of a dog or a cat.) And images of humans displaying intense emotion rather than a neutral expression also register in the brain with correspondingly greater intensity.[8]

Given the special importance of "other human beings" as a category reflected in our neural wiring, it makes sense that the most basic rituals of human societies everywhere reflect the importance of social context. For as long as our species has left traces, the evidence suggests that the most emotionally evocative experiences in life have been weddings, births, and deaths—events associated with the beginnings and endings of social bonds. These bonds are the centripetal force that holds life together. The special balm of acceptance that these bonds provide, and the uniquely disturbing pain of rejection when they are denied, is what makes humans so highly attuned to social evaluation. We care deeply what others think of us, and this is why, of the ten most common phobias that cause people to seek treatment, three have to do with social anxiety: fear of speaking in public, fear of crowds, fear of meeting new people.[9]

In trying to understand the tremendous power of social connections and interactions within our own species, some scientists have traced the roots of social impulses all the way back to "avoidance" in octopi and "extroversion" in guppies. Scientists working with social insects find that the connections are so tight that it is easy to think of the hive or the ant hill as a single, extended organism.

Among our fellow mammals, we see social connections that are familiar—wolves teaming up to coordinate the hunt, howling

together before and after—and some that are surprising—these same fierce carnivores bringing back meat for packmates who are disabled or who are nursing pups. We see altruistic self-sacrifice in prairie dogs when one individual calls out the first alert when a hawk swoops down, even though this warning action makes it the predator's prime target. And in ape societies, as in every human culture ever studied, we see infractions against the social order being punished by the denial of social connection—the deliberately induced pain known as ostracism. As hominids evolved into humans, and as troops became tribes and cultures became kingdoms, the pain of banishment remained the most severe punishment, short of torture or death, imposed by kings and potentates.[10] It is no accident that even today, in modern correctional institutions, the penalty of last resort is solitary confinement.

The roots of our human impulse for social connection run so deep that feeling isolated can undermine our ability to think clearly, an effect that has a certain poetic justice to it, given the role of social connection in shaping our intelligence. Most neuroscientists now agree that, over a period of tens of thousands of years, it was the need to send and receive, interpret and relay increasingly complex social cues that drove the expansion of, and greater interconnectedness within, the cortical mantle of the human brain. In other words, it was the need to deal with other people that, in large part, made us who and what we are today.[11]

It should not be surprising, then, that the sensory experience of social connection, deeply woven into who we are, helps regulate our physiological and emotional equilibrium. The social environment affects the neural and hormonal signals that govern our behavior, and our behavior, in turn, creates changes in the social environment that affect our neural and hormonal processes. To take an example from a fellow primate, higher levels of testosterone in male rhesus monkeys have been shown to promote sexual behavior; but those same testosterone levels are, in turn, influenced by the availability of receptive females on the social scene nearby.[12] Running is usually an activity that promotes a healthy brain, but in studies conducted with lab rats, running

proved less beneficial to the brains of animals housed in social isolation.[13] In humans, loneliness itself has been shown to predict the progression of Alzheimer's disease.[14] And one of our recent studies suggests that loneliness actually has the power to alter DNA transcription in the cells of your immune system.[15]

In these and myriad other ways, feelings of social connection, as well as feelings of disconnection, have an enormous influence on our bodies as well as our behaviors. We all decline physically sooner or later, but loneliness can increase the angle of the downward slope. Conversely, healthy connection can help slow that decline. Once we move into the realm of "high in social well-being"—and this is possible for any of us—we benefit from positive, restorative effects that can help keep us going longer and stronger.

Who Gets Lonely?

No one disputes that being the new kid at school, losing your spouse, or outliving your friends can make meaningful connection more of a challenge. Objective circumstances do matter. Marriage, for instance, can help blunt the sense of feeling alone. Married people are, on average, less lonely than unmarried people, but, then again, marriage is no guarantee. Being miserably lonely inside a marriage has been a literary staple from *Madame Bovary* to *The Sopranos*. And being in a marriage can sometimes limit opportunities for forming other attachments, even platonic ones. Talent, financial success, fame, adoration—none of these offers protection from the subjective experience of being alone. The Sixties icon Janis Joplin, who was as isolated off stage as she was intensely bonded with others while performing, said shortly before her death that she was working on a tune called "I just made love to twenty-five thousand people, but I'm going home alone." Three of the most idolized women of the twentieth century, Judy Garland, Marilyn Monroe, and Diana, Princess of Wales, were famously isolated

people. The same was true of Marlon Brando and other legendary leading men.

And yet being alone does not necessarily mean being lonely. In his book *Solitude*, the psychiatrist Anthony Storrs explores—in fact recommends—the pleasures of sometimes being by yourself. Think of a naturalist doing research in the rain forest, or a pianist in a marathon practice session, or a bicyclist training in the mountains. Prayer and meditation, as well as scholarship and writing, also involve long stretches of solitude, as do most artistic or scientific endeavors. Needing "time for myself" is one of the great complaints of men and women in today's harried marriages, whether they are multitasking their two careers and family or one spouse is putting in sixty-hour weeks at the office while the other stays home with the kids. In fact, fairly or not, people often judge individuals who are unable to tolerate solitude as being needy or neurotic.

Accordingly, there are no easy-to-assign labels where loneliness is concerned. When a deranged man named Russell Weston Jr. stormed the U.S. Capitol in 1998, his picture appeared on the cover of *Newsweek* under a banner headline: "The Loner." The media applied that same vague judgment to the Unabomber Ted Kaczynski, to President Reagan's assailant John Hinckley, to the Virginia Tech mass murderer Cho Seung-Hui, and to any number of other socially marginalized individuals.

However, our studies of a diverse group of healthy young adults show that everyday folks who feel the pain of isolation very acutely—people who may feel tremendously lonely—have no more in common with the dangerously troubled souls who make headlines than does anyone else. There are extremes within any population, but on average, at least among young adults, those who feel lonely actually spend no more time alone than do those who feel more connected. They are no more or less physically attractive than average, and they do not differ, on average, from the non-lonely in terms of height, weight, age, education, or intelligence. Most important, when we look at the broad continuum (rather than

just the extremes) of people who feel lonely, we find that they have the capacity to be just as socially adept as anyone else. Feeling lonely does not mean that we have deficient social skills.[16] Problems arise when feeling lonely makes us less likely to employ the skills we have.

The Problem in Three Parts

The powerful effects of loneliness stem from the interplay of three complex factors that I want to explore with you in depth. These are:

1. *Level of vulnerability to social disconnection.* Each of us inherits from our parents a certain level of need for social inclusion (also expressed as sensitivity to the pain of social exclusion), just as we inherit a certain basic body type and basic level of intelligence. (In each case, the influence of the environment on where that genetic inheritance takes us is also vitally important.) This individual, genetically rooted propensity operates like a thermostat, turning on and off distress signals depending on whether or not our individual need for connection is being met.
2. *Ability to self-regulate the emotions associated with feeling isolated.* Successful self-regulation means being able to cope with challenges while remaining on a fairly even keel—not just outwardly, but deep inside. As loneliness increases and persists, it begins to disrupt some of this ability, a "disregulation" that, at the cellular level, leaves us more vulnerable to various stressors, and also less efficient in carrying out soothing and healing functions such as sleep.
3. *Mental representations and expectations of, as well as reasoning about, others.* Each of us frames our experience through our own perceptions, which makes each of us, to some extent, the architect of our own social world. The sense we make of our interactions with others is called social cognition. When loneliness takes hold, the ways we see ourselves and others, along with the kinds of responses we expect from others, are heavily influenced by both our feelings of unhappiness and threat and our impaired ability to self-regulate.

Some people love hot sauce—they crave it on everything. For others, a hint of jalapeno sends them gasping for ice water. Human variation in the desire for connection is similarly broad. Some people's personal need for inclusion or sensitivity to exclusion is low enough that they can tolerate moving away from friends or family without too much distress. Others have been shaped by genes and environment to need daily immersion in close social contact in order to feel okay. For those who are more easily distressed, it is the interplay of self-regulation and social cognition that determines what happens next. One person will manage to cope until the next opportunity for connection comes along, while another may enter into a downward spiral of self-defeating, even self-destructive thoughts and behaviors, the kind that encourage cellular responses which, over the long haul, prove dramatically corrosive.

Whatever our own individual sensitivity, our well-being suffers when our particular need for connection has not been met. Because early humans were more likely to survive when they stuck together, evolution reinforced the preference for strong human bonds by selecting genes that support pleasure in company and produce feelings of unease when involuntarily alone. Moreover, and central to the theme of this book, evolution fashioned us not only to feel good when connected, but to feel secure. The vitally important corollary is that evolution shaped us not only to feel bad in isolation, but to feel insecure, as in physically threatened. As we will see, once these feelings arise, social cognition can take the sense of danger and run with it.

The person who starts out with a painful, even frightening sensation of being alone may begin to see dangers everywhere on the social landscape. Filtered through the lens of lonely social cognition, other people may appear more critical, competitive, denigrating, or otherwise unwelcoming. These kinds of interpretations quickly become expectations, as loneliness turns the perfectly nor-

mal fear of negative evaluation into a readiness to fend off blows. And then the plot thickens. The fear that can force us into a defensive crouch can also cost us some of our ability to self-regulate. When loneliness is protracted, impaired regulation, combined with distorted social cognition, makes us less likely to acknowledge someone else's perspective. We may become less able to evaluate other people's intentions, which can make us socially awkward, but can also make us vulnerable to manipulation by anyone trying to conceal ulterior motives. At the same time, fear of attack fosters a greater tendency to preemptively blame others. Sometimes this fear makes us lash out. Sometimes it makes us desperate to please, and sometimes it causes us to play the victim.

The sad irony is that these poorly regulated behaviors, prompted by fearful sensations, often elicit the very rejection that we all dread the most. Even more confounding, over time, the feeling of vulnerability that comes with loneliness can make us more likely to be dissatisfied with, and distrustful of, whatever social connections we have. A young bride once took her new husband to task for buying the wrong kind of jelly. The fact that he had gone to the grocery store and stocked the refrigerator earned him no points. "You know I hate grape," she told him. In fact, the subject of jams and jellies had never come up. He thought he was doing something nice to make their new home in a new community more comfortable. But in her mind, he was intentionally disregarding her preferences. Unable to dispel the sense of hurt, she dissolved into a tearful rant. We may reasonably suspect that the real issue for her wasn't jelly, but doubts and fears about the marriage, which generated the feeling of isolation and exposure to threat that we call loneliness.

When we feel isolated, we perceive ourselves as doing all we can on behalf of our relationships, even when all objective evidence indicates otherwise. It is the lonely roommate who throws around snide comments all evening, and then when she meets resistance to the insults says, "You're always criticizing me!" When this leads to an argument, she may be the one who starts to yell, requiring others to raise their voices ever so slightly as they try to reason with her. "Stop yelling at me!" is a not-unlikely response from someone

whose social cognition perceives a world that is threatening on all sides, and whose ability to self-regulate has been disrupted by those same perceptions.

The same sort of distortions can affect intimate relationships and persist for years. One partner in a relationship has a higher need for connection than the other currently fulfills—perhaps than the other *can* fulfill. Maybe this other partner is cold and narcissistic, but then again, maybe his or her genes and life experience have simply provided a different (and lower) level of need. The point is not to assign "blame" to one or the other, but to recognize that there is a mismatch. Unfortunately, the partner whose need is unmet may begin to act in ways that the other considers "difficult" or "too demanding" or "needy," which causes him or her to pull away even further, leaving the partner who already feels lonely feeling even more neglected and isolated, which propels the pattern spiraling downward toward greater unhappiness. Seeing this familiar dynamic through the lens of loneliness, and sometimes through the lens of genetically biased—and individually different—levels of need for connection, can allow us to address the problem and the search for solutions at a deeper level.

Just as anyone can feel lonely from time to time, anyone can make a mistake that triggers social anxiety and prompts self-protective thoughts and actions. Certainly school, work, and family life present plenty of moments when it is reasonable to anticipate occasional criticism, attack, or even treachery and betrayal. The key difference is that loneliness causes us to apply these defensive perceptions to situations that are neutral or benign. These negative expectations then have a way of becoming self-fulfilling prophecies.

But even as dismal as this interpersonal dance may appear, the fact that loneliness makes us unwittingly contribute to the choreography is actually a plus. The same social cognition that amplifies the problem also gives us a point of access. The way we frame reality through the filter of our own thoughts is something that, with effort, we can learn to modify. The sense of threat we unconsciously ratchet up is something we can learn to very consciously tone down.

Taking Charge

It has always seemed to me that certain public figures appear perpetually isolated (think Prince Charles), while others appear warm and personally magnetic (think Oprah). In private life, too, some people seem to be natural social connectors, those who bond easily with others and whom everyone enjoys being around. They are usually, though not always, happy in marriage and high in both social and emotional intelligence. But these lucky people are rarely saints, television stars, charming politicians, or glittering celebutantes. Their distinctive quality is not the ability to give a great party or to sway the masses, but an element of warmth, openness, and generosity that draws others in. They are far more likely to be found helping out at their kid's school or going the extra mile at work than blowing past the velvet rope surrounded by paparazzi. Most important, in their inherent abilities, these lucky people are not all that different from any of the rest of us.

The secret to gaining access to social connection and social contentment is being less distracted by one's own psychological business—especially the distortions based on feelings of threat. When any of us feels connected, the absence of social pain and the sense of threat allows us to be truly *there:* in sync with others. This lack of negative arousal leaves us free to be more genuinely available for and engaged by whatever real connection might develop. If a feeling of connection biases cognition, it is in a positive and generous direction that lifts us up while also giving a boost to others. Being socially contented will not necessarily make us the life of the party, but such a generous and optimistic influence often means that others will find us more pleasant and even more interesting.

One of our most intriguing findings about feeling socially satisfied is that this disposition, free of social pain and the distorted social cognitions such pain can cause, also places the individual on a very even—and very healthful—keel. When we feel connected we are generally less agitated and less stressed than when we feel lonely. In general, feeling connected also lowers feelings of hostility and

depression. All of which can have profoundly positive influences on our health.

Just as social connection helps keep our entire physical apparatus operating more smoothly, self-regulation—the sum total of an individual's mental and physiological efforts to achieve balance—actually extends outward to other people. A well-regulated, socially contented person sends social signals that are more harmonious and more in sync with the rest of the environment. Not surprisingly, the signals he or she receives back are more harmonious and better synchronized as well. This rippling back and forth between the individual and others is the corollary to self-regulation that we call co-regulation.[17]

In the pages that follow, I am going to delve more deeply into self-regulation, co-regulation, and many other genetic and environmental forces that influence our experience as social beings. To make the benefits—as well as the urgency—of social connection more compelling and more accessible, I am going to examine the tangible consequences of both social pain and social contentment, along with their scientific underpinnings. I want to demonstrate the many ways in which loneliness serves as a new window on who we are as a species. I want to use our recent research findings, woven together within an evolutionary framework, to start trying to change our culture's lopsided view of human nature, its focus on the individual in isolation as the proper measure of all things. But my more immediate goal is to help the socially satisfied get from good to great, while at the same time helping the lonely regain control of their lives. It is my belief that, with a little encouragement, most anyone can emerge from the prison of distorted social cognition and learn to modify self-defeating interactions. What feels like solitary confinement, in other words, need not be a life sentence.