

SOCIAL INTELLIGENCE: THE NEW SCIENCE OF HUMAN RELATIONSHIP

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Bantam Books, 2006

- Cacioppo's initial research uncovered links between involvement in a distressing relationship and hikes in stress hormones to levels that damage certain genes that control virus-fighting cells.
- Social intelligence is a shorthand term for being intelligent not just about our relationships but also in them.
- We catch strong emotions much as we do a rhinovirus -0 and so can come down with the emotional equivalent of a cold.
- Though the amygdale has an exquisite³ sensitivity for such messages, its wiring provides no direct access to the centers for speech; in this sense the amygdale is, literally, speechless. When we register a feeling, signals from our brain circuits, instead of alerting the verbal areas, where words can express what we know, mimic that emotion in our own bodies. People do not see the emotions on faces so much as feel them, a condition called "affective blindsight."
- The speed differential between the "high" and "low" roads (neural vs. amygdala) – the instant emotional one is several times faster in brain time than the more rational one- allows us to make snap decisions that we might later regret or need to justify. By the time the low road has reacted, sometimes all the high road can do is make the best of things. Heinlein: Man is not a rational animal, but a rationalizing one.
- Poe: When I wish to find out how good or how wicked anyone is, or what are his thoughts at the moment, I fashion the expression of my face, as accurately as possible, in accordance with the expression of his, and then wait to see what thoughts or sentiments arise in my own mind or heart, as if to match or correspond with the expression.
- Our warning system for whether we can trust someone has two braches, high and low. The high road operates when we intentionally make a judgment of whether someone might be trustworthy. But a continual amygdale-driven appraisal goes on outside our awareness, regardless of whether we consciously think about the issue. The low road labors to keep us safe.
- The facial muscles are controlled by the low road, the choice to lie by the high road; in an emotional lie, the face belies what is said. The high road conceals, the low road reveals.
- The emotions we catch have consequences. And that gives us a good reason to understand how to shift them for the better.
- As two people attend to what the other says and does, they generate a sense of mutual interest, a joint focus that amounts to perceptual glue. Such two-way attention spurs shared feelings.
- Contrary to the advice of popular books on the matter, intentionally matching someone – 9imitating the position of their arms, say, or taking on their posture – does not in itself heighten rapport. Such mechanical, faked synchrony feels off.
- To witness such entrainment, watch any virtuoso display of musical prowess. The musicians themselves seem enraptured, swaying as one, in rhythm with the music. But beneath this visible synchrony, the musicians are joined in a way an audience can never know: in their brains. If any tow of those musicians were to have their neural activity measured during their rapture, it would show a remarkable synchronicity. For instance, when two cellists play the same bit of music, the rhythms of neuronal firing in their right hemispheres are extraordinarily close. The synchrony of

these zones for musical abilities is far greater across brains of the two than is the capsule for the left and right hemispheres within each brain.

- I understand your action by creating a template for it in my own brain. As Giacomo Rizzolatti, the Italian neuroscientist who discovered mirror neurons explains these systems “allow us to grasp the minds of others not through conceptual reasoning but through direct stimulation; by feeling, not by thinking.
- Of course there are also genuine smiles of spontaneous pleasure or amusement. These are the smiles that are most likely to evoke one in return. That action signals the work of mirror neurons dedicated to detecting smiles and triggering our own. As a Tibetan saying has it, “When you smile at life, half the smile is for your face, the other half for somebody else’s.”
- Laughter may be the shortest distance between two brains, an unstoppable infectious spread that builds an instant social bond.
- Thinking of an action prepares the mind to perform it; priming guides us through our daily routines without our having to exert mental effort in thinking what we should do next. Seeing our toothbrush on the bathroom sink in the morning cues us to automatically reach for it and start brushing.
- The feelings that pass through a group can bias how all the group members’ process information and hence the decisions they make. In coming to a decision together, any group would do well to attend not just to what is being said, but to the shared emotions in the room as well.
- Of the many factors that are at play in altruism, a critical one seems to be simply taking the time to pay attention; our empathy is strongest to the degree we fully focus on someone and so loop emotionally.
- Simply paying attention allows us to build an emotional connection. Lacking attention, empathy hasn’t a chance.
- Just hearing about someone lending a helping hand can have a unique impact, inducing a warm sense of uplift. Elevation is the state reported repeatedly when people tell how they felt on seeing a spontaneous act of courage, tolerance, or compassion.
- Self-absorption in all its forms kills empathy, let alone compassion.
- Modern-day social and virtual distances have created an anomaly in human living, though one we now take to be the norm. This separation mutes empathy, absent which altruism falters.
- When we make instantaneous judgment, we depend to a large extent on the operation of an unusual set of neurons: brain cells shaped like a spindle, with a large bulb at one end and a long, thick extension. Spindle cells, neuroscientists now suspect, are the secret of the speed of social intuition. They put the “snap” in snap judgments.
- The spindle shape holds the key: the body is about four times larger than other brain cells; from a very wide, long branch stem the dendrites and axons that act as cell-to-cell wiring. The spindles gargantuan dimensions ensure extremely high-velocity transmission.
- Spindle cells are rich in receptors for serotonin, dopamine, and vasopressin. These brain chemicals play key roles in bonding with others, in love, in our moods good and bad, and in pleasure.
- Some neuro-anatomists suspect that spindle cells are crucial to what makes our species unique. Humans have about a thousand times more of them than do our closest primate cousins, the apes, who have but a few hundred.
- Rehashing our social lives may rate as the brain’s favorite downtime activity, something like its top-rated TV show. In fact, only when the brain turns to an impersonal task, like balancing a checkbook, do these people circuits quiet down.

- We make judgments about people around a tenth of a second more quickly than we do about things. In the first moment of an encounter with someone, these neural areas make their initial judgment pro or con in just one-twentieth of a second.
- As we alter our perceptions, we can change our emotions.
- Just naming for ourselves the emotions we feel can calm the amygdala. Such reappraisal has a host of implications for our relationships. For one thing, it affirms our capacity to reconsider knee jerk negative reactions to someone, to more thoughtfully appraise the situation, and to replace an ill-considered attitude with one that better serves us and the other person.
- The mind's eye need only picture the scorn of an audience, and the amygdala activates, making the body respond with an overwhelming blitz of stress hormones.
- Each time we bring a memory to mind, we adjust its very chemistry: the next time we retrieve it, that memory will come up as we last modified it. If we merely have a flare-up of the same fear, we deepen our fearfulness.
- Reviewing something painful from the past with someone who helps us see a different perspective can gradually lessen some of the distress by re-encoding disturbing memories. This may be one reason for the relief that can come when client and therapist rehash troubles: the talk itself may alter the way the brain registers what is wrong. It is something like what happens naturally when we churn a worry over in our mind, and come to a new perspective. We use the high road to reengineer the low.
- Even though we can stop talking, we cannot stop sending signals about what we feel. When it comes to emotions, we cannot *not* communicate.
- Empathic accuracy represents, some argue, the essential expertise in social intelligence.
- Semiotics: decoding the social signals that reveal, for example, who might be the most powerful person in a group.
- Dyssemia: a deficit in reading – and so acting on – the nonverbal signs that guide smooth interactions. An estimated 85% of those with dyssemia have the deficit because they failed to learn how to read nonverbal signals or how to respond to them, either because they did not interact enough with their peers or because their family did not display a given range of emotion or followed eccentric social norms.
- The ability to “control and mask” the expression of emotions is sometimes considered key to self-presentation.
- Some people are all self-presentation, with no substance to back it up. The varieties of social intelligence are no substitute for the other kinds of expertise that a given role may call for.
- Empathy alone matters little if we fail to act. Acting results in another sign of social intelligence: concern.
- Micro Expression Training (use to gain control of the rapid responses to which the amygdala responds)
- In I-It interaction, Buber wrote, one person has no attunement to the other's subjective reality, feels no real empathy for the other person.
- I am agentic when I care not at all about your feelings but only about what I want from you.
- The sensing of another person's needs and feelings, and the unsolicited response to them, bespeaks the high value placed on the I-You mode in Japanese culture. The Japanese word *amae* refers to this sensibility, empathy that is taken for granted, and acted upon, without calling attention to itself.
- While the prefrontal systems can increase our emotional separation enough so we can think more clearly. This balance makes empathy effective.

- Feelings of inclusion depend not so much on having frequent social contacts or numerous relationships as on how accepted we feel, even in just a few key relationships.
- Projection ignores the other person's inner reality: when we are projecting, we assume the other feels and thinks as we do.
- Projection makes the other an It, empathy see the other as a You.
- The dark triad: narcissist, Machiavellians and psychopaths. All three types share to varying degrees an unappealing, though sometimes well-concealed, core: social malevolence and duplicity, self-centeredness and aggression, and emotional coldness.
- Narcissists, though bored by routine, flourish when they are facing a difficult challenge. This trait can be adaptive in domains where performance under stress counts, from litigation to leadership.
- The healthy variety of narcissism originates in the well-loved infant's notion that she is the center of the world, that her needs are everyone else's priority. In adulthood this same attitude matures into a positive self-regard that gives her confidence appropriate to her level of talent – an essential ingredient for success. Lacking such self-confidence, people shrink from deploying whatever gifts or strengths they may have.
- Whether a given narcissist is healthy or unhealthy can be gauged by their capacity for empathy.
- Productive narcissists combine a justified self-confidence with openness to criticism – at least to criticism that comes from confidants.
- Healthy narcissistic leaders have the ability for self-reflection and are open to reality checks.
- Narcissists empathize selectively, turning a blind eye to those who do not feed their striving for glory.
- The slogan of the narcissist might be “Others exist to adore me.” They take credit for successes but never blame for failure. They feel entitled to glory, even blithely claiming credit for others' work (but they see nothing wrong in this – nor in anything else might they do.)
- Although narcissists can selectively turn on the charm, they can just as readily be disagreeable. Not in the least drawn to emotional intimacy, they are highly competitive, cynical and mistrustful of others, and readily exploit the people in their lives – glorifying themselves even at the expense of slighting someone close to them. Nonetheless, narcissists typically think of themselves as likable.
- Machiavellian: My ends justify the means. Highly polished socially, the manager made considerable efforts to impress not just his boss but also clients outside the company. But once he was back in his own office suite, he became a petty tyrant, shouting at people whose performance displeased him, while uttering not a word of praise for those who excelled.
- Though perhaps admirably coolheaded in their social interactions, they remain uninterested in establishing emotional connections. Machs, like narcissist, see others in strictly utilitarian terms – as an It to manipulate for their own ends.
- Machs typically have tunnel-vision empathy: they can bring someone's emotions into focus mainly when they wish to use that person for their own ends. Otherwise, Machs are generally poorer at empathic attunement than others. The coldness of the Mach seems to result from this core deficit in processing emotions – both in themselves and in others. They see the world in rational, probabilistic terms that are not only devoid of emotions but absent the ethical sense that flows from human concern. Hence their easy fall into villainy.
- Lacking the full capacity to feel with others, Machs also cannot feel for them. Machs appear just as confused when it comes to their own emotions; at a moment of unease they may not know whether they are feeling sad, tired, hungry or ill.
- Machs: I always look out for my own interests before worrying about those of the other guy.

- Remorse and shame and their close cousins embarrassment, guilt and pride are “social” or “moral” emotions. Members of the Dark Triad experience these prods to ethical action in only stunted ways if at all.
- Narcissists are driven by pride and fear of shame, but they feel little guilt for their self-centered acts. Machs, too, fail to develop a sense of guilt. Guilt requires empathy, which the Mach’s emotionally distant relationships lack.
- For psychopaths, other people are always an It, a mark to be duped used and discarded. The Mach is a sub-clinical psychopath.
- Low on empathy, high on systematizing is the underlying neural pattern in Asperger’s.
- The ability to apprehend what seems to be going through someone else’s mind is one of our most invaluable human skills. Neuroscientists call it “mindsight”.
- Mindsight stands as a prerequisite for younger children’s ability to joke or to get a joke. Deficiency in these capacities sets autistic children apart from those who develop a normal social repertoire.
- One reason autistic infants avoid eye contact seems to be that it makes them anxious – when they look at eyes, their amygdala reacts wildly, indicating intense fear. So instead of looking at a persons eyes, the autistic child looks at the other person’s mouth, which conveys little about someone’s inner state. While this tactic lessens their anxiety, it means autistic kids miss out on the rudiments of face-to-face synchrony, let alone mindsight.
- Social epigenetics is part of the next frontier in genomics. The new technical challenge involves factoring in the impact of environment on differences in gene expression. It is another blow against the naïve view of genetic determinism: that our experiences do not matter – that genes are all.
- Every child experiences the very same family in sharply idiosyncratic ways.
- Because the human brain packs so much circuitry in so little space, it creates continuous pressure to extinguish connections the brain no longer needs, to make space for those it must have. Use it or lose it.
- Cells that fire together, wire together.
- Countless people when feeling down, turn to solitary consolations like overeating, drinking, or compulsive channel surfing.
- If effective, therapy – or other reparative relationships in life – can enrich the capacity for connection, which in itself has healing properties.
- Everyone in a child’s day offers a model, for better or worse, of how to handle distress.
- Repeating the sequence of fear-turning-into-clam apparently shapes the neural circuitry for resilience, building an essential emotional capacity. We can learn to be resilient by being exposed to a threat or stress at a level that allows us to manage it. If we are exposed to too little stress, nothing will be learned; too much, and the wrong lesson might become embedded in the neural circuitry for fear.
- Around 25% of adults are “avoidant”, uncomfortable being emotionally close, finding it hard to trust a partner or share feelings, and getting nervous when their partner seeks to get more emotionally intimate.
- Some degree of anxiety seems to be a price we pay for true emotional intimacy, if only because it surfaces relationship problems that need to be resolved. Shaver’s avoidant types seem to have bartered away a fuller emotional connection with others for a protective disconnection from their own disturbing feelings.
- Secure, anxious and avoidant types of attachment styles. Secure people were the most compassionate. Anxious people are swallowed by their own distressing reactions. Avoidant people are neither upset nor prone to help.

- When we learn to accept that no lover or spouse can ever satisfy all the unmet needs we bring from childhood, we can begin to perceive our partners more fully and realistically – rather than seeing them through the lens of our wishes and projections.
- Attachment, caregiving and sexual desire are but three of seven major neural systems that drive what we want and do. Exploration (which includes learning about the world) and social bonding are among the others. Each of us ranks these basic neural drives in our own way – some people live to ramble, others to socialize.
- Toxic relationships are a major risk factor for disease and death as are smoking, high blood pressure or cholesterol, obesity and physical inactivity.
- Those with an ongoing personal conflict were 2.5 times as likely as the others to get a cold, putting rocky relationships in the same causal range as vitamin C deficiency and poor sleep.
- While perpetual arguments are bad for our health, isolating ourselves is worse. Those with the fewest close relationships were 4.2 times more likely to come down with the cold, making loneliness riskier than smoking.
- When elderly people had an engaging supportive social life, they displayed better cognitive abilities seven years later than did those who were more isolated. Loneliness has little or nothing to do with how much time people actually spend by themselves, nor how many social contacts they have in a given day. Instead, it is the paucity of intimate, friendly contacts that leads to loneliness. What matters is the quality of our interactions: their warmth or emotional distance, their supportiveness or negativity. The sense of loneliness, rather than the sheer number of acquaintances and contacts a person actually has, correlates most directly with health: the lonelier a person feels, the poorer immune and cardiovascular function tends to be.
- Adding complexity to a person's social environment primes new learning, enhancing the rate at which the brain adds new cells.
- Staff care-giving is an adult version of offering a secure base. It can be witnessed in the mundane mood-lifting interactions that go on in any workplace in the course of a day, from simply being available and lending a sympathetic ear, to stopping to listen to a complaint. Or it can take the form of giving respect or a word of admiration or a compliment, or by appreciating someone's work.
- Paradoxically, the social work supervisor, who reported to the executive director, gave far more support to her boss than he did to her. This kind of reverse caregiving is surprisingly common, with subordinates offering unreciprocated care to their superiors. The upward flow resembles the dynamic in dysfunctional families, where a parent abdicates responsibility and instead reverses roles, seeking care from the children.
- "Frazzle" is a neural state in which emotional upsurges hamper the workings of the executive center. While we are frazzled, we cannot concentrate or think clearly.
- Fear frazzles the mind, disrupting learning.
- Joyous states allow us to flourish, to live well, and to feel well-being.
- Positive moods elicit the mild-to-moderate range of cortisol associated with better learning.
- During high anxiety the brain secretes high levels of cortisol plus norepinephrine that interfere with the smooth operation of neural mechanisms for learning and memory. When these stress hormones reach a critical level, they enhance amygdala function but debilitate the prefrontal areas, which lose their ability to contain amygdala-driven impulses.
- When challenges begin to overmatch ability, increasing anxiety starts to erode cognitive efficiency.
- The drawbacks apply as well to teachers and leaders. Foul feelings weaken empathy and concern. Managers in bad moods give more negative performance appraisals, focusing only on the downside and are more disapproving in their opinions.

- The hippocampus, near the amygdala in the midbrain, is our central organ for learning. This structure enables us to convert the contents of “working memory” – new information held briefly in the prefrontal cortex – into long-term form for storage. This neural act is the heart of learning. Once our mind connects this information with what we already know, we will be able to bring the new understanding to mind weeks or years later.
- The hippocampus is especially vulnerable to ongoing emotional distress, because of the damaging effects of cortisol. Under prolonged stress, cortisol attacks the neurons of the hippocampus slowing the rate at which neurons are added or even reducing the total number, with a disastrous impact on learning.
- Cortisol stimulates the amygdala while it impairs the hippocampus, forcing our attention onto the emotions we feel, while restricting our ability to take in new information. Instead we imprint what is upsetting us.
- When college students were told that a test was a practice, they scored 10% better than when they thought they were part of a team that depended on their score to win a cash prize. Intriguingly, the deficit in this most basic cognitive ability was greatest for the smartest students.
- Many effective leaders sense that – like compliments – well-titrated doses of irritation can energize. The measure of how well calibrated a message of displeasure might be is whether it moves people toward their performance peak or plummets them past the tipping point into the zone where distress corrodes performance.
- Mirror neurons are leadership tools: Emotions flow with special strength from the more socially dominant person to the less.
- The passing of moods from leader to follower typifies any relationship where one person has power over another. Despite the power differential in these relationships, they all have a benign potential: to promote the growth, education, or healing of the less powerful person.
- People recall negative interactions with a boss with more intensity, in more detail, and more often than they do positive ones. The ease with which demotivation can be spread by a boss makes it all the more imperative for him to act in ways that make the emotions left behind uplifting ones.
- Secure bases are sources of protection, energy and comfort, allowing us to free our own energy.
- Research shows that students who feel connected to school – to teachers, to other students, to the school itself – do better academically. They also fare better in resisting the perils of modern adolescence: emotionally connected students have lower rates of violence, bullying and vandalism; anxiety and depression, drug use, and suicide; truancy and dropping out.
- Feeling connected” refers not to some vague niceness but to concrete emotional links between students and the people in their schools: other kids, teachers.
- Students who are already doing well continue to do so regardless of the setting. At-risk students who had cold or controlling teachers floundered academically – even when their teachers followed pedagogic guidelines for good instruction. If they have a warm, responsive, teacher, they flourish learning as well as the other kids.
- A meta-analysis of schools that had programs in social/emotional learning scored 12% higher on academic achievement. See Chap 19, footnote 34
- The relationship between one of Us and one of Them by definition lacks empathy, let alone attunement.
- Once a negative bias begins, our lenses become clouded. We tend to seize on whatever seems to confirm the bias and ignore what does not. Prejudice, in this sense, is a hypothesis desperately trying to prove itself to us.

- Emotional involvements, like friendships and romances between individuals from either side of a hostile divide, make people far more accepting of each other's groups.
- Closeness leads to a reduction in prejudice, but mere casual contact on the street or at work does relatively little, if anything, to change hostile stereotypes.
- The pain of ostracism registers in the node of the social brain that also reacts to actual physical pain. Social rejection in students can torpedo academic performance.
- The rich may experience more pleasure than the poor, but they also require more pleasure to be equally satisfied. The way to escape from the hedonic treadmill: a life rich in rewarding relationships.
- Technology makes it easier and easier to disconnect from other people, and from ourselves.