



BERIT
BROGAARD

ON ROMANTIC LOVE

SIMPLE TRUTHS
ABOUT A COMPLEX
EMOTION

ON ROMANTIC LOVE

PHILOSOPHY IN ACTION

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On Romantic Love: Simple Truths about a Complex Emotion

Berit Brogaard

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Simple Truths about a Complex Emotion

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I was afraid of losing him. Now I am afraid of forgetting him. I try to hold onto him, the little I have left. I can still see his contours but I can't see his face. Sometimes I imagine that he turns around and walks away. The door shuts closed. Then everything gets dark. I never want that to happen.

—ZOE

There is always some madness in love. But there is also always some reason in madness

—FRIEDRICH NIETZSCHE (“On Reading and Writing”)

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PREFACE

Why does it sometimes feel like we are on drugs when we fall in love? Why do we fall in love with people who aren't good for us? Is it possible for a person to love you sincerely one day and then leave you for someone else the next? What's going on when someone says he loves you but acts like love is the last thing on his mind? How is it that we can be absolutely smitten with someone who can't seem to make up her mind about us? Can it ever be wrong to love someone? Is it at all possible to take measures to fall *out* of love? And at a more foundational level, is romantic love essential for our well-being?

In *On Romantic Love* I provide answers to these and many other questions. The book's focus is on romantic or "relationship" love regardless of sexual orientation or gender identity, but the arguments and viewpoints carry over to a large extent to compassionate love, which includes parental love and friendship love.

I explain why love—and romantic love in particular—is an emotion and why we often experience it more forcefully than even the most powerful of our emotions, such as fear, anger, joy, or jealousy. As Lao Tzu, a philosopher of ancient China, once put it, "Love is of all passions the strongest, for it attacks simultaneously the head, the heart and the senses." But love, as we all know, doesn't remain at a constant fever pitch. For love, as we will see, comes in degrees over the course of a relationship. "All love shifts and changes," the English actress Julie Andrews wisely observed. "I don't know if you can be wholeheartedly in love all the time." As it turns out, "To some degree" is not a bad answer to the eternal question "Do you love me?" (Though I do not recommend being that honest!)

It's this changeable nature of romantic love that led many of the philosophers and psychologists I read to conclude that romantic love is not "real" love. It's temporary insanity, they say. It's something you must eventually abandon in favor of the real thing, which they take to be companionate love or attachment love, the kind of warm and secure and steady love that's left when the initial fireworks have faded. I take issue with this claim. I don't think there's a single kind of true love, and I fully believe that romantic love *is* real love. It's as real and true as the love you feel for your grandfather or your childhood friend. Granted, it's different from companionate love and attachment love, but it is, nonetheless, love.

Whether romantic love is a rational or irrational form of love is a different matter. If you've ever fallen for the wrong person—a phenomenon that often seems far easier than finding and falling for the "right" person—your friends and family may have been all too eager to tell you that your love was irrational. Meanwhile you may have felt so deliriously in love that despite all evidence to the contrary you swore you'd found "the one." Indeed when we feel swept away by love it's almost as if we're under the influence of a drug, and it turns out there are neurological reasons this is so. In this book I'll explain how emotions, and romantic love in particular, can be meaningfully said to be rational and irrational, and I'll show you how to arrive at that conclusion. Sometimes love is illogical and foolish or even harmful, and sometimes it's perfectly sensible. If you love someone who treats you with disdain and disrespect or who abuses you, your love is irrational. If you are in love with your own fantastical creation of your beloved, your love is irrational. On the other hand, the love you feel for the partner who respects you and desires your happiness is perfectly rational.

If irrational love is threatening your well-being, it's time to face the hard work of falling out of love. Of course, this isn't nearly as

easy to accomplish as your friends and family would like it to be. Just as with irrational fear, you can't simply turn off love the way you switch off the light in your bedroom. But irrational fears *can* be surmounted, and just as people work hard to eradicate their phobias and anxieties, it's quite possible to fall out of love.

On Romantic Love also looks at the occurrence of invisible or subconscious love and the repercussions it has on our relationships. It's not commonly recognized that we can have emotions that we're not consciously aware of. But not recognizing that emotions can exist in our subconscious yet still exert a discernible influence on our behaviors and choices leaves us vulnerable to missteps in the realm of romantic love. Hidden emotions will eventually make themselves known, often in the form of unwise choices in a partner, low self-confidence, painful breakups, or difficulties finding a place in the world.

As painful as love can be, and as fraught with anxiety for those who find themselves still searching for love, it can also be euphoric and provide our lives with deep-seated meaning. There's no doubt that we need love in our lives. It's a basic human need, on a par with thirst and hunger, and one of our highest pleasures. Quite often love can be our very reason for living—our Golden Mountain, our Holy Grail, the happiness we constantly pursue.

Whether it's love, lust, loneliness, heartbreak, curiosity, or outright perplexity that brought you to this book, I hope you'll find within these pages illumination, useful advice, and perhaps a new way to look at this ancient, timeless topic that exerts such a powerful influence on our lives.

Berit Brogaard
March 24, 2014

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ON ROMANTIC LOVE

DANGEROUS LIAISONS

LETTER FROM A FRIEND

“Three weeks ago I would have felt differently. My whole life would have depended on hearing from him. When I didn’t hear from him, everything seemed unbearable and gloomy. I couldn’t do anything. Every little problem I encountered was a world disaster. On the other hand, if I heard from him, I was floating inside a bubble of good fortune, gleefully brimming with energy. I depended so much on him. I depended on him ‘seeing me.’ When I studied feminist theory in college I learned about a tragic phenomenon in today’s society. We women are alive only when a man’s eyes are resting on us. We come back to life when he ‘sees us,’ we die a little each time he doesn’t. Therein lies the repression of women.

“This is symptomatic of my life. I thought my intense feelings for Brandon were an indicator of his positive contribution to my life. I thought he made my life bright and easy. All of a sudden I wanted him as far away from my life as possible. It happened in the course of a few minutes. Something unnatural must have happened. I knew instantly that I NEVER wanted to see him again.

“I hate myself because my happiness has depended on whether he would contact me and ‘see’ me. I don’t get it. I talked to my friend Diane yesterday. She is close to forty but looks twenty-nine. Her boyfriend is twenty-nine. He gives her an insane amount of attention. She feels appreciated. But she had a boyfriend last year, a real asshole. The guy ignored her most of the time. She was madly in love with him. But all of a sudden she lost all feelings for him. It also

happened in the course of a few minutes. Suddenly she saw how badly he had treated her, how disrespectful he had been, how little she really meant to him. I think the same thing has now happened to me. Brandon has made an effort to tell me, if not with words, how little I mean to him. I am only a spice in a drawer which he takes out now and again when his supper is too lackluster.

“It’s absolutely insane that we let men control our lives like that. Ridiculous. Ludicrous. It is going to end, as far as I am concerned. I have not experienced anything but disappointment with men. I don’t think I will ever trust a man again. Brandon has disappointed me too many times to count. All my hopes and dreams have been crushed. My whole foundation has been taken away from me. I thought I was something special. And suddenly I am nothing. I was not even good enough for a call or a text on Thanksgiving or New Year’s. It’s so hard to comprehend. But I am also relieved that all my silly romantic dreams have been replaced by anger and disappointment. I used to have real, physical pain in my chest when I didn’t hear from him, and hearing from him or knowing I’d see him made me feel so infinitely good, like I was on ecstasy. Now I turn to ice inside when I think of him. I won’t make any last ditch efforts to turn things around. There is nothing left. I have miraculously recovered from an impossible romance! I never thought it would happen. But it has. He disgusts me now. I could puke. Yuk. Everything about him disgusts me, all the girls he is probably screwing, all the lives he’s no doubt ruining, all the lies he’s telling, his deceitful, hypnotic charm, his yuppie sports car, his nonstop games and almost sadistic unpredictability. When I think of him kissing me I see a snake before me.”

When my friend Zoe wrote this letter to me, she had been seeing Brandon for three years. She had been in almost daily contact with me about what she was going through with this man. They would

see each other only occasionally. He never wrote or called her on special days: Christmas, birthdays, Valentine's Day, Thanksgiving, New Year's. But when they did see each other, it felt like heaven on earth. He was unbelievably romantic. He took her to picturesque locations and whispered sweet nothings in her ear. He also promised her things they would do in the future: walks by the river, hikes in the countryside, picnics on the Michigan Lake beaches, Romantic getaways to secluded cabins in the woods. Then he would fall off the grid. Weeks would pass. Zoe unwearingly waited for him and the idyll to resurface. When she occasionally wrote to him in the meantime, he would either not respond or respond laconically and dismissively. Then out of the blue, when she thought it was over, he reappeared in her life. She had wild mood swings, from being disheartened to euphoric. She described herself as being frantically in love with this guy. She had never felt the same way toward any other man. His kisses and his lips were silky soft and enthralling. His way of holding her made her feel irresistible. When she thought of him or heard from him, she felt mind-blown, exhilarated, jittery, joyful, smitten.

Despite his egocentric and distant treatment of her between their get-togethers, regardless that he acted like a master of masculine coldness, Zoe was crazy in love with Brandon. Love-crazed. Lovelorn. Then suddenly, out of nowhere, she felt nothing but resentment and disrespect; she had no affirmative feelings left. She had lost everything for him in the course of a few minutes. How could that happen? Had her positive feelings for him really vanished instantaneously? Had they been replaced by disdain, disrespect, and hatred faster than a speeding photon? Judging from her letter and my subsequent conversations with her, this indeed was how she felt; this was what she experienced. As Zoe is the best person to tell us about her inner experiences, it seems that we should take her words at face

value. But how is it possible for emotions to transmute that rapidly without an external trigger?

We know that fear can come suddenly. Many years ago I received an email from a boyfriend whom I thought was as crazy about me as I was about him. I thought things were going just fine. The email said: "It's over. I can't see you anymore." I was flabbergasted. My heart beat like a jungle drum and sweat stung my eyes. I experienced intense fear. The heartache came later. The fear arose in the course of reading the two sentences. From being calm and happy and satisfied with my life, I suddenly felt that I was going to die; I felt as if my body could no longer retain its normal functions, as if an explosion was happening inside me, as if someone had fired a gun and the bullet was heading in my direction. I screamed hysterically. Then the tears came. I thought to myself: Marilyn Monroe was so right when she said: "A wise girl kisses but doesn't love, listens but doesn't believe, and leaves before she is left."

Emotions can indeed come on very abruptly. But in my case the meaning of the two sentences, "It's over. I can't see you anymore," provoked fear. It was triggered by my comprehension of the content. A few words changed everything inside me. In Zoe's case, there was no external trigger. Things were as they had been for three years. Brandon had not dumped her, nor had he written her a ruthless letter. Zoe also denied having been thinking of their liaison in new ways. She had done nothing unusual that she could think of. She had had the same intense feelings for Brandon just a few minutes earlier. The change in her consciously felt emotions came out of nowhere. Though she is not a very spiritual or religious person, she thought that something supernatural must have happened. That is how drastic the change seemed to her.

Of course, there is a better explanation of what happened. The rash change and her clear-eyed shrewdness were not triggered by a

supernatural event, nor were they a bizarre coincidence. She had had those negative emotions in her all along, or at least for a very long time. But she was unable to experience them; until the magic moment of epiphany, her positive emotions had involved stronger nerve signals in her brain, which kept the weaker nerve signals underlying her negative emotions in check. Brandon eventually succeeded in pushing her beyond endurance. At the crucial moment, the nerve signals underlying her negative emotions finally became strong enough for her to consciously experience her negative reactions.

This explanation of the swift change in Zoe's condition presupposes that there are unconscious emotions, brain events that guide our behavior and thought processes but do not correlate with conscious experience. Or so I will argue in this book. Love and hatred are among the emotions that often are not consciously manifested. They involve nerve signals in the brain that are too weak to give rise to conscious experience. But they can affect our behavior, thoughts, and reasoning processes; they can affect our daily lives.

For very many people the idea of an unconscious emotion (or what some would call a "subconscious emotion") is mind-boggling and a bit spooky. It seems that we cannot keep our unconscious life in check. It is as if *it* controls us rather than vice versa, as if we are left at the mercy of its unpredictable operations. However, as we will see, things are not quite that bad. We cannot control unconscious brain activity in the same way that we can control conscious thoughts and reasoning processes. But there are ways in which we can take charge of our unconscious mind. We are not at the mercy of the netherworld residing beneath the docile façade of our accessible thoughts and emotions. There are proven techniques that can enhance or weaken the unconscious nerve signals in our brains. These approaches can transmute, enhance, weaken, or eliminate our hidden and not so hidden emotions. And they are not reserved for people who believe their

food processor is out to get them. They are for everyone with a past. Zoe could have come to understand that Brandon was up to no good much earlier had she used these methods. She could have spared herself years of heartache, depression, and self-deception.

Unconscious emotions are not always the enemy. Without them, love cannot last. Laura, a former student of mine, told me about a short love affair she had with a man named Nicholas. This brief relationship, she said, was one of the most intense events in her life. It affected her deeply as a person and thinker. She consciously felt emotions so intense that they would make her shake like a leaf. The sight of him would make her feel blissfully unaware of anything else around her. But, needless to say, these intense consciously felt emotions did not occur every single minute of the day. They happened every so often, but Laura did other things in between feeling in love: she slept, chatted with friends, went to work, taught classes, wrote term papers, had job interviews, traveled, and gave talks. Her heart did not threaten to jump out of her chest while she was explaining the theory of a dead philosopher to her students, tanking up on free beer at a scholarly conference, giggling with her student colleagues over a pint of Guinness at the local pub, or assisting some experimental philosopher counting bald heads at Penn Station. Of course, her emotions would sometimes surface even in these circumstances but not consistently. Was she in love with Nicholas even when she didn't feel a thing? Of course she was. Her emotions had not disappeared without a trace. They were hiding inside her in a configuration that did not elicit conscious feelings. They were temporarily hidden under the surface of her conscious mind. Laura's love lasted for ages, years after the affair was over, but it wasn't always consciously felt.

Zoe has had little luck in love. Though Brandon treated her like royalty when they finally got together and promised her heaven on earth, he acted as if she were a bookend in the time between their

sporadic meetings, letting her linger in an uncomfortable state of uncertainty. She often wondered about Brandon's feelings for her. If he really were as much in love with her as he appeared to be when they got together, wouldn't he want to see her more often? He is admittedly an absurdly busy and popular thirty-something academic-turned-motivational-speaker. But Zoe herself is a thriving star blogger and literary critic who spends a great deal of time attending promotional events, literary festivals, and press conferences, and socializing in literary and intellectual circles. Still, she desired to be with Brandon much more often than he wanted to be with her. Why were there these asymmetries in their relationship?

Unless Brandon purposely behaved like a douchebag to attract Zoe's attention (more on that later), one natural explanation of his behavior is that his emotions were partially unconscious. Brandon clearly had some powerful feelings for Zoe. He was unable to hide them when they got together. But he apparently didn't feel the need to see Zoe very often. It is possible that he loved her but that his love wasn't always consciously felt or was overridden by stronger conscious emotions of fear. Because Brandon's love was fluctuating like a yo-yo, Zoe was not always a high priority in his life, hence the reference to the spice. Sometimes he needed to spice up his daily diet of work and travel, and he would then call her and entice her to meet with him. Once near her, his feelings for her would grow punchier and more intense. Was Brandon truly and fully in love with Zoe?

The answer to this question is clearly "no." Shakespeare said it well: "They do not [truly and fully] love that do not show their love" (Shakespeare, from *Two Gentlemen of Verona*, Act I, Scene II). Brandon was not truly and fully in love with Zoe. But it wasn't the case that he wasn't in love with her either. His loving state was an in-between case. He was neither truly in love with her, nor was he truly not in love with her. Most cases of love are like that. Or they

become in-between cases over the years, when dirty underwear grows mold on the floor and Larry King is more of a turn-on than making love to your spouse.

Some think that unconscious love and the in-between cases of love are not true cases of love and that love is transitory and intermittent at best. Philosopher Annette Baier, for example, holds that “emotions are felt” and that “they are episodic, lasting minutes rather than days.” If she is right, and love is an emotion, then love does not last forever. It lasts for minutes or hours only to fade away and at times reemerge—perfect for speed dating for professional singles! (Fall in love twenty times in one night. Each love affair lasts only five minutes.) But this cannot be the right account of our ordinary notion of love. Imagine your partner asking you, “Do you love me?” to which you respond: “Occasionally yes, at least a few minutes every day.” Not only would this answer be heartless; it would also be delusional. Love is not always consciously manifested. Sometimes it is brewing inside us through weak signals in the brain or neural pathways that guide our behavior and thoughts without our conscious awareness.

Zoe’s conscious feelings for Brandon are understandable. Male dating gurus school men in the dark art of the female putdown. They tell guys that women prefer men who behave like jerks—with a touch of humor thrown into the mix. Ever notice how well that advice works? Neither have I. However, there is some truth to their claim. We usually want what is hard to get. When we obtain it, we appreciate it more. Sensing signs of love from a jerk feels like more of an achievement and a compliment than sensing ardor from a guy who constantly dotes on us or on any woman he lays his eyes on. No wonder Zoe fell in love with the jerk she was seeing. Dating gurus tell guys not to confess their feelings in the beginning unless they want to be considered “wusses” not worth our time. That piece of

advice is good too. We don't want you to tell us you love us unless you really mean it, because we might do something crazy, like believe it. However, male dating gurus are not entirely right. Behaving like a nasty jerk for too long builds resentment and anger in women—resentment and anger that at first is hidden away in the unconscious chambers of the brain but can suddenly become strong enough to surface as a conscious emotion. This is just what happened in Zoe's case. Now thoughts of Brandon kissing her make her think of a snake. Given that Brandon had some intense feelings for Zoe, he will no doubt bemoan his distant and jerky behavior once she tells him that she has permanently removed "I" from "lover." So much for the advice of male dating gurus.

Brandon's behavior, whether intentional or not, was not good for Zoe's well-being. For a while it was a fire boosting her spirit and adding a vivid brightness to her life. But it ended up reducing her existence and well-being to rubble, leaving her with the burden of resentment. She used to have a handle on life, and then it broke. Her liaison with Brandon was poisonous. She should not have been feeling what she felt. Her feelings were unjustified and irrational.

"But, wait a minute," you may think, "if Zoe couldn't help but feel in love, then surely it makes no sense to say that she should not have been feeling what she felt. Surely she should have been feeling what she felt, even if it was detrimental to her well-being. She could not help herself." This, however, is not quite right. My good friend Ethan has an intense fear of flying. Yet he is a smart guy. He knows perfectly well that flying is safer than riding a tractor. But his heart performs quadruple salchows long before the flight attendant has poured a few drops of Sprite over the mountain of ice in his plastic cup. His fear is so disorienting that he feels like vomiting. Should he be feeling this fear of flying? Rationally, no, he should not, and he knows he should not. His fear is not justified or rational. He knows

it, and is taking measures to reduce it. His doctor wrote him a prescription for alprazolam (yes, Xanax!). Instead of driving his old Buick across the country to visit family on the west coast, he now hops on a plane. I think he might have had to repeat the phrase “planes are safer than tractors” to himself 433 times during each flight, but still... He is slowly coming to terms with his fear. It is beginning to disappear because he realized that it was unjustified and he has taken measures to control it. One lesson of this book, as we will see, is that love and other emotions are subject to rational control. We can control our emotions, both those we are conscious of and those we are not.

Since the 1970s there has been a tendency to treat romantic love as a transitory and intermittent state of mind that has little to do with true love. American psychologist and bestseller author Dorothy Tennov, for example, says that romantic love is distinct from true love; it’s an altered state of consciousness, fantastical in its nature, a psychological bungee-jump, a brain-drug-driven thrilling mystery-fantasy. American journalist and critic of American life and culture Henry Louis Mencken defined romantic love as “a state of perceptual anesthesia.” And in the movie *Captain Corelli’s Mandolin* we are told that love is a “temporary madness:”

It erupts like an earthquake and then subsides. And when it subsides you have to make a decision. You have to work out whether your roots have become so entwined together that it is inconceivable that you should ever part. Because this is what love is. Love is not breathlessness, it is not excitement, it is not the promulgation of promises of eternal passion. That is just being in love which any of us can convince ourselves we are. Love itself is what is left over when being in love has burned away, and this is both an art and a fortunate accident.

In this book, I take issue with nearly all of these claims about romantic love. Granted, romantic love can be, and often is, irrational. When “in love” we often close our eyes to the truth or carefully edit it before taking it in. We overlook obvious faults of personality. We put up with bad-mannered behavior. We leave our children, max out our credit cards, even throw away friends, family, and career. But, in my opinion, none of this makes romantic love a strange bird that is entirely different from other kinds of love. Compassionate love and love in its ripening or fading stages can mess with our minds as well. Some sacrifice their lives to save the children of strangers. Some think up absurdly convoluted plots to prevent their spouses from discovering that they are having sex with their assistant on the office desk after work. And some continue to love their grown children even when they beat them unconscious on a daily basis and steal their medicine and lunch money.

In this book I defend a new theory of love. I argue that love is an emotion, and that emotions, just like beliefs, can be assessed for rationality: love in its developing, ripening, and fading stages is sometimes rational and sometimes irrational. I further argue that love isn't always something we consciously feel. Because love sometimes resides below our conscious awareness, we don't always explicitly know whom we love. I also take issue with the common belief that love is an on-off affair: “Do you love me?” does not always have a definite answer. This, I argue, is because love admits of degrees. You can love one person more than another and you can love a person a little or a lot or not at all. A final claim I defend is that because love is an emotion, and because emotions are subject to a kind of rational control, love too is something we can choose: we can take measures to fall out of love.

2

GRAVITATION IS NOT RESPONSIBLE FOR PEOPLE FALLING IN LOVE

THE CHEMISTRY OF LOVE

On popular websites, we read headlines such as “Scientists are finding that love really is a chemical addiction between people.” Love, of course, is not literally a chemical addiction. It’s a drive perhaps, or a feeling or an emotion, but not a chemical addiction or even a chemical state. Nonetheless, romantic love, no doubt, often has a distinct physiological, bodily, and chemical profile. When you fall in love, your body chemicals go haywire. The exciting, scary, almost paranormal and unpredictable elements of love stem, in part, from hyper-stimulation of the limbic brain’s fear center known as the amygdala. It’s a tiny, almond-shaped brain region in the temporal lobe on the side of your head. In terms of evolutionary history, this brain region is old. It developed millions of years before the neocortex, the part of the brain responsible for logical thought and reasoning.

While it has numerous biological functions, the prime role of the amygdala is to process negative emotional stimuli. Significant changes to normal amygdala activation are associated with serious psychological disorders. For example, human schizophrenics have significantly less activation in the amygdala and the memory system (the hippocampus), which is due to a substantial reduction in the size of these areas. People with depression, anxiety, and attachment insecurity, on the other hand, have significantly increased blood flow in the amygdala and memory system.

Neuroscientist Justin Feinstein and his colleagues (2010) studied a woman whose amygdala was destroyed after a rare brain condition. They exposed her to pictures of spiders and snakes, took her on a tour of the world's scariest haunted house, and had her take notes about her emotional state when she heard a beep from a random beeper that had been attached to her. After three months of investigation, the researchers concluded that the woman could not experience fear. This is very good evidence for the idea that the amygdala is the main center for fear processing. (The chief competing hypothesis is that fear is processed in a brain region that receives its main information from the amygdala.)

Despite its tiny size, the amygdala is amazingly powerful. When its neurons fire intensely, this triggers a physical stress response in your body. Hans Selye, a Canadian endocrinologist, was the first to apply the word "stress" to physical and emotional strain. Before that, "stress" was just an engineering term. Selye, who did the bulk of his research in the 1930s, discovered that the stress hormone cortisol had detrimental health effects in rats.

Together with other adrenal gland hormones, such as epinephrine (adrenaline) and norepinephrine (noradrenaline), cortisol prepares the body for a "fight or flight" response. Stress hormones are secreted in situations of perceived danger. They can be aggressively rushing through the bloodstream, even when the danger isn't real. For example, they run rampant in people with a fear of public speaking. They make your heart breakdance, your skeleton turn to gelatin, and your new Mickey Mouse voice make little squeaks the first time you stand in front of a hundred-person audience.

Falling in love then goes like this. Unpredictability, mystery, and sexual attraction make the amygdala go into a hyper-activation mode. Via neurotransmitters, this signals to the adrenal glands that something exciting, scary, mysterious, and unpredictable is going

on. This, in turn, results in the adrenal glands pumping a surge of adrenaline, noradrenaline, and cortisol into the bloodstream. Via the bloodstream, adrenaline increases heart and breathing rates; noradrenaline produces body heat, making you sweat; and cortisol provides extra energy for muscles to use.

Though falling in love is associated with anxiety and stress, this state—in combination with the belief that there may be reciprocity—is also at times accompanied by intensely pleasant emotions. These emotions arise from an underlying brain chemistry that resembles those triggered by cocaine use.

Your Brain on Crack

Cocaine is a serotonin/norepinephrine/dopamine reuptake inhibitor, like the most frequently prescribed antidepressants. Serotonin reuptake inhibitors block the transporter that normally carries the “feel good” neurotransmitter serotonin into the neurons. When serotonin is inside the neurons, it does not function as a neurotransmitter. To have an impact on the brain, it must be extracellular, or outside the neurons. When the transporter is blocked, less serotonin is carried back into the cell. So, the extracellular levels of serotonin increase, which stabilizes the brain’s chemistry and alleviates anxiety and depression.

Cocaine increases the brain levels of serotonin, norepinephrine, and dopamine. But unlike the selective serotonin reuptake inhibitors, or SSRIs, doctors normally prescribe for depression (for example, Zoloft, Celexa, or Lexapro), cocaine works instantly. This is because cocaine is a much more potent drug. Whereas standard antidepressants only partially block neurotransmitters, cocaine completely blocks them, giving rise to a steep peak in the levels of norepinephrine, dopamine, and serotonin.

Increased levels of norepinephrine make you alert and energetic, suitable levels of serotonin make you feel satiated and self-confident, and increased levels of dopamine make you go into a pleasurable manic state. Dopamine also motivates us to continue to perform certain activities by causing a feeling of profound enjoyment in response to those activities, such as sex.

Because dopamine is associated with pleasure and memory associations between certain actions and pleasure, stimulants and narcotic drugs that increase the brain's levels of dopamine can cause addiction. The brain remembers the intense pleasure and wants it repeated. This, however, is probably not the whole story behind addiction. Though pleasurable or satisfying activities normally are necessary to initiate an addiction, it may be an overall less efficient pleasure response to ordinary events that causes addiction. It's the pleasurable or satisfying feeling created by dopamine that entices us to try a drug a second time. But it is likely a dopamine deficiency, a smaller number of dopamine receptors, or an impairment of the function of dopamine that causes addiction. For people with an addictive personality, normal everyday activities, such as working, reading, or watching a movie, don't lead to sufficiently intense pleasure, so they seek the drug to give them a more profound experience.

Over time, cocaine and other drug use desensitizes the brain to the drug. Desensitization happens as a result of an increased reuptake of the drug or a reduction in or desensitization of receptors. As a result, a larger amount of the drug is required to achieve the same stimulating effect.

New love can have similar effects on the brain as cocaine. Helen Fisher, an anthropologist and relationship researcher, conducted a series of fascinating brain imaging studies of the brain chemistry and brain structure underlying new love. She found that serotonin, dopamine, and norepinephrine are crucially involved in the initial stages of romantic love in much the same way as they are in cocaine use.

When you fall in love with someone, norepinephrine fills you with raucous energy, serotonin boosts your self-confidence, and dopamine generates a feeling of pleasure. New love is a kind of love addiction but not yet a kind of pathological love addiction. In falling in love, however, the brain is on crack—a dangerous state of mind.

Beliefs and Brain Chemistry

When the systems of neurotransmitters in our brain destabilize during the early phases of a romantic relationship, our moods become unsteady too. And so does our ability to think rationally and make wise decisions. When you become truly infatuated with a person, you might make decisions you wouldn't dream of making in a sane state of mind. Nothing really matters compared to the object of your infatuation. In extreme cases, we might max out credit cards, leave our families, move across oceans, abdicate a throne, rob banks, or even commit murder for the sake of love.

When there is a substantial imbalance in your brain chemistry, your preferences and reasoning abilities change and so do your beliefs. Research has shown that when you mess with your brain chemistry, you are more likely to have spiritual experiences, see things that are not there, and form beliefs that are not grounded in evidence.

In the 1960s, researchers experimented with the psychedelic drug psilocybin, the active ingredient in magic mushrooms, to see if it could induce spiritual experiences in healthy volunteers. The first of these experiments took place on Good Friday in 1962. Harvard researchers administered psilocybin to ten students in the basement of Marsh Chapel at Boston University. The religious setting and the drug together gave rise to religious experiences in all study participants.

(The experiments came to a halt when the US government prohibited them in the early 1970s.)

Psychedelic drugs, such as psilocybin, LSD (lysergic acid diethylamide), and mescaline, affect the dopamine system, the serotonin system, and the adrenergic system. Their effects on the adrenergic systems, which normally cause an increase in the blood concentration of adrenaline, can cause panic attacks and extreme anxiety. The drugs' effects on the dopamine system are responsible for thoughtless decision making and irrational actions during a "trip," such as self-mutilation or suicide. The psychedelic effects of the drugs are largely due to their affinity for the 5-HT_{2A} receptor. This receptor is a serotonin receptor. When a psychedelic drug in the serotonin family binds to it, the drug functions just like serotonin.

In normal amounts, the feel-good chemical serotonin yields a sense of relaxation and relief. In large amounts, however, serotonin and serotonin agonists like LSD, DMT (dimethyltryptamine), and the magic mushroom ingredient psilocybin have psychedelic effects. In large amounts, these chemicals trigger the brain's main excitatory neurotransmitter glutamate, which makes parts of the brain go into an over-excited state.

The effects of excessive amounts of serotonin can be so powerful that our critical sense is turned off. A famous, mind-boggling case illustrating this is the Dr. Fox study. In the 1970s an actor was trained to deliver a brilliant talk on mathematical game theory while saying basically nothing of substance. The actor, who bore the name Dr. Myron L. Fox, had taken a scholarly article on game theory and stripped it of its content. The talk was rife with hedging, invented words, contradictory assertions, and references to his alleged earlier articles and books. Surprisingly, his delivery so impressed the audience that nobody noticed that he didn't really say anything. At the end of the talk the audience, which consisted primarily of experts,

bombarded Fox with questions, which he answered proficiently without providing any substantial content. After the lecture, the audience was given the opportunity to evaluate the performance. Everyone was very positive, they thought the lecture had been interesting, and some noted that Dr. Fox had presented the material clearly and precisely and offered lots of illustrative examples. And these folks were academic experts on the topic of mathematical game theory! Speaking of being fooled by what you hear!

This effect of delivery on audience evaluation has come to be known as “The Dr. Fox effect.” The Dr. Fox effect can be explained by noting that a large surge in “feel good” chemicals will turn off our critical sense. Funny, charming, and persuasive people signal to our brains that everything is as it should be. Their smooth behavior boosts our serotonin levels, which turn off our critical sense and increase our feeling of satisfaction—so much so that our initial beliefs are never subjected to scrutiny in the ventromedial prefrontal cortex and the anterior insula, regions of the brain involved in reflecting critically on new information.

The effects of psychedelic drugs, such as LSD, DMT, and psilocybin, are extreme. Because these drugs cause the brain to enter an over-excited state, they can have seizure-like effects. They furthermore can give rise to hallucinations, illusory color experiences, a feeling of floating, a feeling of one’s identity disintegrating, a feeling of becoming one with the universe, and illusions of time and distance. Thoughts can become uncontrollable, rambling, and obscure, and edged in acid, old memories may blend with new experiences.

While our serotonin levels tend to be low when we fall in love or are beset by a mindless love obsession, there are also states of love that resemble LSD trips. When your passion is unrequited or when you are away from your new love, your serotonin levels drop. But if

you unexpectedly bump into him or her or realize that his or her love is not unrequited after all, your brain may release a surge of serotonin, dopamine, and adrenaline, making your mind a bit like the LSD mind. In this state, you may be more likely to see things that are not there, have experiences that are mixed with old memories, and act in irrational ways.

Dopamine by itself can cause people to form beliefs that are not grounded in evidence. People whose blood levels of dopamine are higher than normal are more likely to attach meaning to sheer coincidences and find meaningful patterns in arbitrary scrambled images.

Peter Brugger, a neurologist from the University Hospital in Zurich, Switzerland, examined twenty people who claimed to believe in paranormal events and twenty who claimed they didn't. When the participants were asked to tell which faces were real and which were scrambled among a series of briefly flashed images, people who believed in paranormal events were more likely than skeptical participants to pick out a scrambled face as real. The results were the same when the participants were tested using words instead of faces. After the initial trials, the researchers administered L-dopa, which has the same effects as dopamine, to both groups of participants. After taking this drug, skeptics made many more mistakes when looking for real words or faces than before taking the drug.

The results of the study suggest that dopamine can make you see things that aren't there and form beliefs without solid evidential backing. These results may explain the tendency of people in love to idealize their partners and attach meaning to every little move he or she makes. When in love, your dopamine levels are high when you think of your lover. This makes your brain a less reliable instrument for forming solid beliefs or making wise decisions.

Taking the Drug Away

“You are perfect in every way, just not for me,” “I need to find myself and I just can’t do that with you,” “I need to learn to love myself before I can love you,” “I think you feel more than I do and I don’t want to hurt you.”

We know what these are. Breakup lines, the lines of the visible breakups, the lines that put an end to something that once was. The reason a breakup can be so hard to handle, especially for the person who wanted the relationship to continue, is not that the breakup erases the past. It doesn’t. The past is as real as it ever was. When Rick (Humphrey Bogart) and Ilsa (Ingrid Bergman) leave each other in *Casablanca*, Rick tells Ilsa to focus on the time they fell in love, adding “We’ll always have Paris.” A breakup leaves the past intact but erases the future. It pokes a knitting needle through your expectations for the future. It doesn’t ruin what was. It ruins what was going to come. It shatters the hopes and dreams you had about the future. The losses that hurt most are those that abruptly deprive you of the future experiences you depended on. Those losses make you a different person with a different future and with too many empty spaces to fill with experiences less wonderful than those you had hoped for. A breakup is also a major rejection of you as a person, a demonic destruction of your self-esteem and your self-worth that leaves you raw, open, exposed. As Dennis Quaid once put it, “when you break up, your whole identity is shattered. It’s like death” (*Food for the Soul*, p. 147).

Breakups often lead to a psychological state that resembles withdrawal from an addiction. They literally take away the crack you were on. So now you experience withdrawal symptoms, making it painfully clear to you just how addicted you were to wonderboy or wondergirl. When you are addicted, you satisfy at least some of the following conditions:

1. You need more and more of the activity or drug for you to achieve the desired effect (tolerance).
2. You experience withdrawal symptoms when you do not engage in the addictive activity or drug.
3. You engage in the activity or take the drug more frequently and for a longer period of time than initially intended.
4. You have a persistent desire to quit or control the activity or drug.
5. You spend a great deal of time ensuring that the activity or drug access can be continued.
6. You give up or reduce important social, occupational or recreational activities because of the addiction.
7. You continue the activity or drug despite knowledge of its physical or psychological consequences.

The severity of your addiction can be seen as a function of how many of these criteria you satisfy.

Addiction is different from obsession in the clinical sense. The main difference is that in cases of obsession, the “drug” consists of recurrent or persistent thoughts or images. In cases of obsession, the obsessive person seeks to control or avoid the thoughts or images by suppressing them or neutralizing them with other less uncomfortable thoughts or with convenient distractors. But the relief is only temporary. What we commonly call “love obsession” typically has both elements of obsession and addiction to a particular person.

A love-obsessed person is in a state of denial, believing that she is still in a relationship, or that she can convince the other person to return to or continue the liaison. The occasional increase in the brain’s levels of dopamine and norepinephrine infuses the tormented and obsessed individual with sufficient energy and motivation to refuse to relinquish. But the “energy high” doesn’t continue. It occurs

in intervals. This is because an obsessed individual has widely fluctuating neurotransmitter levels, which makes her go from action-driven to bedridden.

This is the respect in which love obsession differs from drug addiction: when a cocaine addict no longer has access to the drug, his neurotransmitter levels remain low until he recovers or gives in. In love obsession, the neurotransmitters are on a roller coaster ride that makes the obsessed person hang onto the past with ferocious energy, even when it is blatantly obvious to everyone else that there is nothing to hang onto.

Love obsession following unrequited or unfulfilled love differs from addictions to, or obsessions with, sex and being in love. In the 1979 article "Androgyny and the Art of Loving," American psychologist Adria Schwartz describes a case of a young man addicted to the chase of women.

A man in his mid-twenties entered therapy after a series of unsuccessful relationships with women. Virtually his entire psychic life was spent in compulsive attempts to meet and seduce women. Occasional successes were followed by brief unfulfilling liaisons which he inevitably ended in explosive fits of frustrated rage, or boredom. Recurrent dreams occurred where he found himself running after a woman, catching up to her only to find some physical barrier between them. Women were "pieces of meat." He found himself excited by the prospect of imminent sexual conquest, but he often ejaculated prematurely and was physically and emotionally anesthetized to the experience of intercourse. (p. 406)

Addiction to "the chase" is similar to addiction to being in love with someone (or other). People with an addiction to being in love have

trouble staying in relationships. When the initial feelings of love turn into a calmer state, they get withdrawal symptoms and end the liaison. The “drug” they need is the cocktail of chemicals that floods the body during the initial stormy phases of a relationship. In the online *Your Tango* article “Am I Addicted to Love and Sex?” Sara Davidson, the author of *Loose Change* and *Leap*, describes her love addiction as an addiction to being in love with someone who is in love with her. The relationship that made her realize that she was a love addict was with a man she “didn’t even like.” She describes her relationship as follows:

Okay, I know, this sounds like an addiction, but I didn’t recognize it until an affair I had last year with a man I call Billy, The Bad. Billy pursued me and wouldn’t take no for an answer. He wore cowboy boots, wrote decent poetry and drove a hybrid Lexus. “I have a tux and a tractor,” he wrote in his online profile. “I can work with my head or my hands.” He said he loved me and took it back, said it again and denied it again. When he turned on the love it was bliss, and when he withdrew it was hell. When he told me again that he loved me the pain went away, only to return with greater intensity the next time he reneged. I cut things off when I couldn’t stand it anymore. I mean, I realized I was crying over a man I didn’t even like! Something deeper, more primitive was clearly going on, and I turned to books and even a 12-step program for help.

In the *Psychology Today* online article “Can Love Be an Addiction?” Lori Jean Glass, program director of Five Sisters Ranch, reveals that she once was diagnosed with an addiction to being in love. Unlike Davidson, Glass describes her addiction as more than just being addicted to the feeling of being in love. For her, the addiction involved

being completely absorbed in someone else's life and the feeling that someone else needed her and admired her. Someone, anyone; it didn't matter who it was as long as it was a warm body capable of overflowing her brain with love chemicals. Glass also describes her insanely intense relationship as jumping: "I went from relationship to relationship. The idea of intimacy was foreign. God forbid, I let anyone see inside my wounded spirit. Often, I had several relationships on the back burner, just in case. Keeping the intrigue alive and active was important."

Addicted to Grief

The emotional responses to a thorny breakup can resemble the responses to the death of a loved one. You feel weighed down by the memories, the longing, the wistful tears, the chest pain and the aching throughout the whole body. Or you are so outraged that you are lucky not to have a semi-automatic weapon. Or you are ready to go on a secret mission aimed at reversing the terrible outcome. It's no coincidence that breakups can resemble the death of a loved one. When a loved one dies, you grieve. But death is not the only trigger of grief. Grief can occur after any kind of loss: the loss of a job, a limb, a breast, a home, a relationship.

According to the Kübler-Ross model of grief, also known as "The Five Stages of Grief," first introduced by Elisabeth Kübler-Ross in her 1969 book, *On Death and Dying*, grief involves five stages: denial, anger, bargaining, sadness, and acceptance. After the loss of a loved one, you may first deny that the person is gone, simply refuse to believe it. Once the truth dawns on you, you may feel outraged and attempt to convince the beloved to come back or beg God or the universe's spirits to reverse their decision. Once you realize things are

not going to change, sadness sets in. Over time you may finally accept what happened. These stages need not occur in this order, and each stage may occur several times. The different emotions can also overlap. You may be angry and in a bargaining mode at the same time, or deny what happened and still feel sad. Philosopher Shelley Tremain captured the complexity of grief well when she wrote on her Facebook site, “Today would have been my father’s eighty-first birthday. Some days, I think time is on my side, that it’s getting easier to live with losing him. Then, it happens. Sometimes, it’s a figure of speech he was fond of, at other times, I am shaving him, or I look in the mirror and see the features of my face that are his, or we are sitting together holding hands. Just sitting there.”

Sometimes it is nearly impossible to let go of grief. When you continue to grieve a loss for a very long time, your condition is called “complicated (or pathological) grief.” The love story of Queen Victoria and Prince Albert is a heartbreakingly beautiful illustration of complicated grief. Alexandrina Victoria was eighteen when she became Queen of England. Her Uncle, King William IV, had no surviving legitimate children. So Victoria became his heir when he died in 1837. When Prince Albert, her first cousin, visited London in 1839, Victoria immediately fell in love with him. Initially Albert had doubts about the relationship, but he eventually fell in love with her too. The couple got married in February 1840. During the next eighteen years Queen Victoria gave birth to nine children. She loved Albert deeply. Albert was not only a dutiful husband and the father of Victoria’s children, he was also Victoria’s political and diplomatic advisor. For twenty-one years they lived happily together. But the bliss came crashing to a halt when Prince Albert died of typhoid at Windsor on December 14, 1861.

Albert’s death completely destroyed Victoria emotionally. She was overwhelmed by grief and refused to show her face in public for

the next three years. People began to question her competence, and many attempted to assassinate her. Victoria finally appeared in public but she refused to wear anything but black and mourned her Prince Albert until her own death in 1901. Victoria's forty-year-long state of mourning earned her the nickname "The Widow of Windsor." She never again became the happy and cheerful woman she had been when Albert was alive. In preparation for her own death she asked for two items to be in her coffin: one of Albert's dressing gowns and a lock of his hair.

Complicated grief is so severe that psychiatrists now consider it for inclusion in the psychiatric manual for diagnosing mental disorders. If you have complicated grief, you have been grieving for six months or more. You furthermore satisfy at least five of the following criteria:

1. You have obsessive thoughts about aspects of the lost relationship or the person you were with.
2. You spend a significant amount of time every day or almost every day, thinking about your lost relationship or the person you were with.
3. You have intense emotional pain, sorrow, pangs, or yearnings related to the lost relationship.
4. You avoid reminders of the loss, because you know that reminders will cause you pain or make you feel uncomfortable.
5. You have problems accepting the loss of the relationship.
6. You have frequent dreams that relate to your lost relationship.
7. You frequently suffer from deep sadness, depression, or anxiety because of the loss.
8. You are angry or feel a deep sense of injustice in relation to the lost relationship.

9. You have difficulties trusting others since the relationship ended.
10. The loss of the relationship makes it difficult for you to find pleasure in social and routine activities.
11. Your symptoms make it difficult for you to function optimally on your job, as a parent or in a new relationship.

Complicated grief is emotionally and chemically similar to post-traumatic stress disorder. In fact, some psychiatrists argue that there is no need to include complicated grief as a separate psychological condition. They are variations on the very same disorder, they say. Posttraumatic stress disorder can occur as the result of any traumatic event. The most common traumatic events discussed in the literature on posttraumatic stress are events of war, terrorist attacks, brutal physical and sexual assaults, and traffic accidents. It is not commonly noted that unexpected breakups and other traumatic relationship events can also lead to posttraumatic stress.

Posttraumatic stress disorder is a condition in which you keep reliving the traumatic event— for example, the breakup—avoiding situations that are similar to the one that led to the trauma. You furthermore have difficulties sleeping, you feel angry, you have difficulties focusing, and you suffer from anxiety. To be a clinical case of posttraumatic stress disorder, the symptoms must last more than a month and lead to difficulties functioning socially, on the job, or in other areas of life. Posttraumatic stress disorder is more likely to occur if the adrenaline surge at the time of the event was very intense.

A study published in the May 2008 issue of *Neuroimage* suggests that complicated grief sometimes occurs because a normal grieving process turns into an addiction. Led by neuroscientist Mary-Frances O'Connor, the team looked at images of the brains of people who

satisfied the criteria for complicated grief and people who weren't grieving and found significantly more activity in the nucleus accumbens of the people with complicated grief. Activity in the nucleus accumbens is associated with addiction.

It may seem strange that you could actually become addicted to emotional pain and a longing for a person who is no longer with you. The researchers suggest that your yearning and sadness may give you some type of pleasure or satisfaction.

Perhaps the turmoil of emotions does really provide some kind of gratification. Perhaps this emotional overflow is addictive. But it is also possible that the increased activity in the nucleus accumbens signifies increased dopamine levels of the sort found in certain anxiety disorders, such as obsessive-compulsive disorder (OCD). The classical case of this disorder is one in which the afflicted is obsessed with thoughts of disease and germs and compulsively washes his or her hands after being near other people or anything that could possibly carry microbes. This disorder is associated with low levels of the mood-enhancing chemical serotonin and fluctuating levels of the motivator chemical dopamine. The low levels of serotonin cause anxiety that involves obsessive, jazzy thinking and the dopamine "reward" motivates the afflicted person to behave in compulsive ways.

As people ruminate obsessively over the events leading up to the loss in complicated grief, the condition may turn out to be similar in this respect to obsessive-compulsive disorder. Low levels of serotonin may trigger obsessive thinking, crippling anxiety, and a visceral yearning for the absent person or the irretrievable relationship. The dopamine response elicited by this kind of obsessive thinking and longing may motivate the grief-stricken person to engage in begging and bargaining and it could also ignite anger fits and a ferocious denial of the loss of the relationship.

Emotional Pain

When someone hurts your feelings or rejects you, they injure you emotionally. We normally call this kind of pain “emotional pain.” Emotional pain that occurs during stages of grieving or after a rejection, however, is just as physical and real as the pain you feel when stubbing your toe or cutting your finger. Damage to the skin as well as a compression of tissue can cause the pain receptors, also known as the nociceptors, in the surrounding nerve tissue to fire intensely. The signal is transferred from the peripheral nerve tissue to the central nervous system. From the spinal cord the information continues into the brain. Here, the pain signal enters the thalamus, which then passes the information onto other brain regions so it can be interpreted. The pain signal also reaches the brain’s emotional center, the amygdala, which is associated with negative emotions, such as fear, sadness, and loneliness.

A study published in the April 2011 issue of *Proceedings of the National Academy of Sciences* found that the very same neurons fire in the case of physical and emotional pain. The subjects in the study were exposed to a photograph of an ex-partner who recently broke up with him or her and were asked to think about the rejection and how unwanted it was. The team, which was led by neuroscientist Ethan Kross, found that the areas that lit up in brain images were very similar to the brain regions that are hyper-activated during physical pain. The pain areas include secondary somatosensory cortex and dorsal posterior insula. So the brain’s interpretation of damage following a rejection or intense grief is very similar to the brain’s interpretation of a wound or other physical lesions.

There is, of course, an important difference between physical and emotional pain. In the case of a typical physical injury the body’s cells are actually damaged. Impaired cells release a host of chemicals whose job is to transmit signals along an intricately designed network

running from the spinal cord to the brain stem and then finally to the higher areas of the brain where pain is perceived.

Emotional pain does not begin with cell damage. It begins with perceptual or cognitive processing in higher areas of the brain. The shock of upsetting news makes the brain stimulate the sympathetic nervous system, which then releases a surge of stress chemicals into the bloodstream, including epinephrine, norepinephrine, and cortisol. All three types of stress chemicals assist in preparing you for a fight-or-flight response. Norepinephrine increases blood sugar levels and opens the bronchial airways, cortisol prepares the muscles for action, and epinephrine (adrenaline) binds to heart receptors, which makes the heart pump more blood into the body's arteries. The stress chemicals are responsible for the pain in the heart and chest muscles that is experienced after the loss of a loved one.

An excess of stress hormones in the bloodstream can cause death. In their 1975 book *Psychosomatics*, medical journalists Howard and Martha Lewis report on a case of a four-year-old child who was taken to the dentist to have some baby teeth extracted. She screamed hysterically. The dentist gave her a sedative to calm her down. Within a few minutes after having her teeth removed, the frightened child had a heart attack and was rushed to the hospital. She died two days later. The autopsy found very high levels of adrenaline in her blood stream due to intense fear.

As Lewis and Lewis point out, 85 percent of the people who die from snakebite didn't have enough venom in their bloodstream to cause death. Ironically, they die from the fear that they may die from the snakebite. False ideas can be a dangerous business.

Extreme fear of death can cause the body to go into a death-like state. In his 1975 book *Your Psychic Powers and How to Develop Them*, Hereward Carrington, a well-known British investigator of psychic phenomena, reports a story of an anxiety-ridden man who almost died from fear of death:

Fear had seized him with tremendous power, he shook like an aspen leaf, he bordered on the state of collapse and death seemed imminent. Not finding any blood...all clothes removed and, while he was being undressed, a flattened bullet fell upon the floor. The doctor exhibited the bullet to the frightened patient, explaining that he had had a miraculous escape, whereupon his countenance improved, his temperature became normal and the look of life returned to his eyes which had been fixed with the gaze of death. (p. 26)

An excess of stress hormones can be particularly dangerous for elderly people, who naturally have fewer defense mechanisms against stress and trauma than younger folks do. My paternal grandfather and my maternal grandmother died within months of their spouses. They were perfectly healthy prior to the death of the other spouse, they were active and vigorous, but the surge of adrenaline from the stress of losing their spouses weakened their heart muscles. Their thriving vitality at once came to a halt. They literally died of a broken heart.

The folklore of “broken heart syndrome” has been around for ages. Cardiologist Ilan Wittstein and colleagues, however, recently discovered that broken heart syndrome is a real physical condition. It’s a weakening of the heart muscle due to an unexpected breakup or the sudden death of a loved one. In the medical community, broken heart syndrome is known as stress cardiomyopathy. People with broken heart syndrome have two to three times as much adrenaline and noradrenaline in their blood compared to people with classic heart attack, and they have seven to thirty-four times more adrenaline and noradrenalin in their blood compared to normal individuals. A large surge in adrenaline and noradrenaline can temporarily stun the heart and give rise to chest pain, fluid in the lungs, shortness of breath, and heart failure. Echocardiograms have shown that

people with broken heart syndrome have a weakened contraction in the middle and upper portions of the heart muscle. Though heart failure in people with broken heart syndrome can cause death, stress cardiomyopathy is not itself a kind of irreversible damage. People sometimes recover completely when their adrenaline and noradrenaline levels return to normal.

These examples illustrate all too well that the body can literally collapse and that the heart can weaken or stop beating when the mind or brain is thick with fear. An intense or frightening encounter that causes the body to release a large surge of stress chemicals can literally kill you. Emotional pain of the sort experienced after an unexpected breakup or unreciprocated love is a kind of pre-stress cardiomyopathy. When the body bombards the heart and muscles with stress chemicals, the cells of the heart “freeze” and the muscles “tense up.” This leads to a release of pain chemicals, which then travel through pain fibers to the spinal cord and then the brain. Finally, this triggers a sensation of pain. If the emotional pain intensifies, it can weaken the heart muscle and progress to full-fledged stress cardiomyopathy.

Stress, Pimples, and Gray Hair

Even if distress associated with a feverish love obsession or a disturbing breakup does not result in stress cardiomyopathy or a heart attack, it can have other unwanted consequences. It can cause acne and bald spots. According to Flor Mayoral, a dermatologist in South Miami, the stress hormone cortisol can increase oil production. This in turn can lead to the formation of acne. So it is no coincidence you get appalling pimples when you are stressed out of your mind. In times of stress, your immune system is suppressed and may attack your own cells, including your hair follicles. The body may also

slowly shut down natural processes, such as hair growth, that are not absolutely essential to survival.

Two conditions caused by stress are Alopecia areata and Telogen effluvium. Alopecia areata is a condition in which your immune system becomes unable to distinguish your hair follicles from foreign invaders, such as bacteria and viruses. This results in white blood cells

attacking hair follicles. When the hair follicles are attacked, they become inflamed, and this inflammation can prevent the hair from growing. Hair that doesn't grow eventually falls out. Telogen effluvium is a related condition in which hair enters a resting phase. Hair in a resting phase falls out very easily, for example, when you comb or wash it.



Queen Marie Antoinette (1755–1793) was imprisoned and executed by guillotine during the French revolution. It is reported that Queen Marie's hair turned white overnight before her execution. © Gareth Southwell.

When hair is lost during a period of stress, new hair that replaces the old hair may be gray. Historical records state that after Henry of Navarre, later Henry IV of France, escaped from the Saint Bartholomew's Day Massacre in 1572, his hair turned white overnight, as did the hair of anxiety-ridden Queen Marie Antoinette of France before her execution. There is no scientific evidence that hair can turn gray or white over a single night. But stress can

cause hair to turn gray or white over a period of weeks or months. The hair of young people contains a compound called “melanin.” This is essential for hair to have a color. Gray hair is hair that has lost some of its melanin, and white hair is hair that has lost all of its melanin. Stem cells called melanocytes are partially responsible for growing new hair. Though the connection between stress hormones and melanocytes is not fully known, researchers believe that stress hormones can trigger an aging process of the melanocytes. This results in new hair with less melanin, or gray hair.

Love and Hate

When someone we love hurts us emotionally, love can turn to hate. People sometimes feel the hate so strongly that they are prepared to take revenge or behave in incredibly spiteful ways toward the person who wounded them.

In 2000 Gail O’Toole invited her ex-lover Ken Slaby over to her Murrysville home to rekindle a friendship but then got furious when she heard about Ken’s new love. Gail waited until Ken was asleep. Then she glued his penis to his stomach, his testicles to his leg, and the cheeks of his buttocks together. Finally, she poured nail polish over his head. When Ken woke up Gail threw him out, and he had to walk one mile before he could call 911. He was taken to the hospital where the nurses had to peel the glue off. Ken required several treatments from a dermatologist afterward. Later Ken filed a lawsuit against Gail, which he won.

Do people like Gail stop loving the person who left them behind? Not likely. According to an old saying, the opposite of love isn’t hate but indifference. When you no longer love someone, you don’t care about them. You abhor them, because you take an interest

in them. They still matter to you. You do mind that they departed. You wanted them to stay, which they didn't. So you hate them.

Recent scientific studies show that there is some truth to the claim that hate isn't the opposite of love. The areas of the brain associated with hate are entirely different from those connected with other negative emotions, including fear and sadness. Fear and sadness are significantly correlated with neuronal activation in the amygdala, the subcortical almond-shaped structure in the temporal lobe; hatred is not.

Researchers from University College London, Semir Zeki and John Paul Romaya (2008), looked at the brains of seventeen subjects while they were viewing pictures of people they hated. They found that while hate activated both cortical and subcortical parts of the brain, it didn't activate the amygdala. In the cortex, hate elicited increased activity in neural areas involved in the guidance and planning of action. These include parts of the parietal cortex on the top of brain and prefrontal areas at the forefront of the brain. In the subcortical brain, hatred activated the putamen and the insula. These areas have been associated with disgust, contempt, and aggression. The putamen and the insula also show increased activity in cases of romantic love, particularly when obsession is involved. This may come as a surprise at first. However, when you think about the nature of obsessive love, it makes sense that it might give rise to increased neural activity in areas of the brain associated with negative emotions. Disgust, contempt, or aggression can come from thoughts of the beloved sleeping with rivals or not reciprocating the offended one's affectionate emotions.

The main difference between love and hate lies in their effects on the prefrontal cortex, the rational brain. Obsessive love inhibits large areas of the prefrontal cortex. This explains the irrational actions people engage in when they are obsessed.

Evidence for this comes from fascinating research on patients with damage to a cortical region in the front of the brain that interprets the response from the amygdala, called vmPFC (ventromedial prefrontal cortex). These individuals can perform to a high level on most language and intelligence tests, but they are unable to make appropriate judgments in their planning strategies. They have remarkable difficulties with social appropriateness and with dealing effectively with the world even though their purely rational thinking is unaffected.

Fifty percent of normal people's choices are bad choices, but normal people learn from their mistakes and make better choices in the future. People with vmPFC damage, on the other hand, do not learn from their mistakes. They keep making the same blunders over and over again, as long as there is some short-term benefit to oversight. For example, in the Iowa Gambling test, subjects choose from four decks of cards that provide different levels of reward and punishment. Two decks provide low reward, but also a low level of punishment. Choosing consistently from these decks eventually leads to a net gain of money. The other two decks give you a high reward, but also a high punishment. Choosing consistently from these decks eventually leads to a net loss of money.

Normal individuals initially sample the advantageous and disadvantageous decks equally, but they learn from their mistakes. After experiencing high punishments from the disadvantageous decks, they start sampling from the advantageous decks. People with vmPFC damage, on the other hand, continue to sample from the disadvantageous decks.

The inability of patients with vmPFC damage to plan, owing to their inability to interpret emotional stimuli, became evident when neurologist Antonio Damasio once attempted to set up a follow-up appointment with one of his prefrontal patients. This patient took out

his appointment book and initiated a cost-benefit analysis, weighing reasons for and against two alternative dates for half an hour, until the frustrated doctor simply decided for him. What would have been a humdrum quotidian routine of life for most of us was a knotty, all-consuming, unmanageable undertaking for Damasio's vmPFC patient.

Because obsessive love inhibits regions in the prefrontal cortex, people who suffer from a love obsession often end up acting a bit like patients with vmPFC damage. They make idiotic decisions or cannot make up their minds about what to do in difficult situations.

While love inhibits areas in the prefrontal cortex and hence leads to irrational decisions, hate inhibits only tiny areas of the prefrontal cortex. This indicates that there is more rationality in (pure) hate than in love. Irrational hate probably is a more complicated emotion that could involve love as well as hate.

The results from brain imaging studies of hate could be of potential legal consequence. The reported intensity of hate turns out to correlate perfectly with the brain activity one can identify in the images from brain scans. This could be of legal consequence, because brain imaging could be used as a kind of lie detector to test whether true hate is present in a criminal who has hurt another person. This could help establish a motive as well as settle questions about the underlying intentions.

3

I HAVE FEELINGS TOO

THE PHILOSOPHY OF LOVE

Chemically, passionate love and compassionate love have very different physiological profiles. Compassionate love is similar in its physiological profile to states of sleepiness and nutritional fulfillment. Passionate love, on the other hand, is physiologically akin to obsessive-compulsive disorder, generalized anxiety disorder, and stressful body states such as hunger. Chemically speaking, it's no wonder that passionate love, unlike compassionate love, can trigger intrusive, obsessive thoughts about the object of affection.

However, the emotional experience we call "love" is not a physical or chemical state but a partially conscious state of the mind, just like typical manifestations of rage, dread, and delight. If we could increase dopamine levels and decrease serotonin levels but take away the feelings of love, the result would be a mental disorder, not an instance of love.

Love as an Emotion

There is little dispute among ordinary folks that love is an emotion. Social psychologist Phillip Shaver and colleagues (1987) asked students how confident they were that words on a list of more than 100 emotion words referred to emotions. Interestingly, they found that "love" was the single word that students were most confident signified an emotion.

To many of us, the view that love is an emotion is so obviously self-evident as to be banal. The view, however, has had limited popularity among philosophers and scientists. There is a baffling fondness for the view that love involves more than one person. The great ancient philosopher Aristotle thought of love as a union. He is quoted as saying that “love is composed of a single soul inhabiting two bodies” (Diogenes Laërtius, third century AD). British philosopher Roger Scruton, a modern-day defender of Aristotle’s view, likewise holds that love exists “just so soon as reciprocity becomes community. That is, just so soon as all distinction between my interests and your interests is overcome” (“Sexual Desire,” p. 230). On a variation of this view, love is not itself an emotion but an emotion complex consisting of the emotions of several people. Annette Baier puts it thus:

Love is not just an emotion people feel toward other people, but also a complex tying together of the emotions that two or a few more people have; it is a special form of emotional interdependence. (“Unsafe Loves,” p. 444)

The view is also encapsulated in the form of sayings like “Lovers’ hearts are linked together and always beat as one,” “Love creates an us without destroying a me,” and “Love is when two bodies become one soul and two hearts become one.” Or as Sean Penn once said in an interview with American writer Jeff Gordinier: “I like to believe that love is a reciprocal thing, that it can’t really be felt, truly, by one.”

The union view is fraught with difficulties. It implies that love cannot be unreciprocated and that there cannot be love of a deceased lover or a hallucinated object. But it is hard to deny that the grief-stricken Anna loves Dr. Malcolm Crowe (Bruce Willis) in the movie *The Sixth Sense*, despite the fact that Malcolm is actually dead.

Avid defenders of the union view could argue that love is either a union among lovers or the anticipation of or desire for such a union. But none of that helps. You can love someone without anticipating or desiring that a union will come into existence, because—sadly—love isn't always sufficient for initiating or continuing a relationship. As philosopher Aaron Smuts observes, "To blindly follow the heart is the maxim of fools" ("Love and Free Will", p. 20).

Some people say that love is a concern for another person for *her* sake rather than your own, an appraisal of the value of another person or a bestowal of value on the beloved. But none of these accounts of love can be accurate. You can have a deep concern for another person without loving him or her, and you can love someone without having a deep concern for that person. A nurse is expected to have a deep concern for his patients but he is not expected to love them. An incestuous monster may love her child but have no concern for him. Love may involve an appreciation of another person's value or the bestowal of value on another person. But neither appreciation of another person's value nor bestowing value on another person is sufficient for love. We can appreciate the value of Jeremy Glick, who attempted to take down the hijackers on United Airlines Flight 93 that crashed in rural Pennsylvania on September 11, 2001, without the appreciation adding up to love. We bestow value on people we admire but we need not love them.

Anthropologist Helen Fisher holds that romantic love is never an emotion or feeling. It's just like sex and attachment: a drive. Fisher's argument for this claim is that romantic love is associated with increased activation of neurons in the midbrain that secrete dopamine. As the dopamine system is a more primitive system than the emotional brain and the cortical system, romantic love is not an emotion, she says.

This argument, however, is not sound. Dopamine is one of the key neurotransmitters in the modulation of anger. Dopamine motivates enraged people to shout, throw things, seek revenge and kill. Does that make anger a drive? Hardly. Anger is an emotion even if it is associated with a strong dopamine response, the very chemical that can make people addicted to anger.

The same point can be made with respect to fear. Some people get severely addicted to adrenaline rushes caused by abnormally intense fear processing in the emotional brain. They cannot get enough of extreme roller coasters, paragliding, parachuting, race cars, and rock-climbing without a safety line. They get addicted to visceral thrills because the adrenaline rushes cause a steep peak in dopamine levels. This heavy dose of the reward chemical is gratifying. Over time the dopamine system changes and a more intense adrenaline rush is needed to get the same pleasurable response. It is in part the peak in dopamine levels that prepares our fight-and-flight response in threatening situations. Dopamine motivates us to act now by either fighting off the danger or running away from it. But despite the close correlation between fear and peaks in dopamine levels, fear is an emotion. It's even considered one of the six basic emotions (the others being surprise, disgust, sadness, anger, and joy). The conclusion to draw from this is that whether a feeling is associated with a peak in dopamine levels has no bearing on whether it really is an emotion.

A further case Fisher makes for her view that love is a drive, not an emotion, is that love is too long lasting to be an emotion. This line of argument doesn't succeed either. She mentions disgust as a key example of an emotion. It's true that disgust, as consciously felt, usually doesn't last long. But despite normally being treated as such, disgust may not be an emotion at all, but a sensory reflex. What's more, disgust can be long lasting, just like anger and sadness. I don't

like fried liver. It has a mushy texture and a bitter iron taste. It's repulsive. Nauseating. Vile. But my disgust doesn't vanish when I am not exposed to, or thinking about, fried liver. I have found it revolting for too many years to count.

Love is not a drive; it is first and foremost something we *feel* in our hearts. It is when love manifests itself as an emotional experience that it is characterized by the sort of profound ecstasy or deep attachment that, when suddenly interrupted or unreciprocated, can cause intense suffering. Love is something for which we will give up eternal life. After giving up his wings in return for bodily sensation and then losing his one and only in a truck accident, the main character in the movie *City of Angels* says: "I would rather have tasted her lips just once, touched her skin, one time, and made love to her for one night, than spend the rest of my life without ever knowing that."

Love can make us float. It can make us feel like earth and heaven served in a cocktail glass with cherries on top. About a month before her magic moment of realization, Zoe sent me the following letter expressing her state of ecstatic love:

Sweet girl, I am floating high up in the sky, feeling light as a feather. Brandon was there when I arrived. He was so breathtaking I couldn't take my eyes off him and his dark secretive eyes. And I constantly wanted to touch his thick curly brown hair... We were so drawn to each other, it was as if we got pulled toward one another, as if strong forces pulled us in... we kissed, flirted, kissed...and he said so many sweet things, he said that his sweater had reminded him of me after our last date, that he hadn't washed it but had put his nose in it every day. He asked me if I wanted to go on a vacation with him, maybe to the Caribbean or Hawaii... or Thailand. I was too drunk on love to

even answer, awash with that anything's-achievable feeling. But, of course, I'm game. I want to go! Just say "when." Later I asked him what he thought was the best moment in his life, and he cried out loud, "Now!"

I told him I had deleted his number and all his messages and almost unfriended him on Facebook when I didn't hear from him for five weeks. He said he was sorry and asked if it was okay if what we had was just something casual. I wanted to say it wasn't but nodded and added that I was happy that he'd called me that night to ask me out. Then he looked at me and said that that he would always do. So sweet!... I said that I thought about him every day, and he said that he did the same. I said he was wonderful and he said the same... OMG, we were so romantic, intimate and intense... it was completely out of this world... we sang along to the music, held each other, touched each other, exchanged ice cubes in the mouth... at one point they played salsa music and we danced for hours while people were watching. When the bar closed we were going to get a cab but we stopped at a gate to an apartment complex. He pressed me up against the gate, was all over me, he was so hard. I told him I could eat him, like literally, consume him, turn us into one person. He smiled and nodded knowingly. Then we continued but stopped all the time to kiss and touch... he couldn't keep his hands off me... it was so intense... it will stand out as the most romantic date in my life ever. A bite of frost in the air, our icy breaths convening and cuddling midair, the glowing city spitting fireballs at us. Just the two of us together in the frosty, ethereal night in New York right before Christmas. After making love at his place more than once, he asked me if I wanted to do something with him on New Year's! I am dying to spend New Year's with him. He is so wonderful that I could scream.

This is romantic is love in its fullest iteration, love that makes you spin in circles with your arms in the air, love that makes you howl from the top of the roof.

Basic and Complex Emotions

Love is an emotion. But is it a basic or complex emotion? Joy, anger, sadness, jealousy, guilt, grief, and pride are all examples of emotions. Following the work of American psychologist Paul Ekman, it is common to divide emotions into simple, or basic, and complex emotions. The basic emotions are joy, surprise, anger, sadness, fear, and disgust. Jealousy, love, guilt, grief, and pride are examples of complex emotions. Basic emotions are so-called because they are associated with distinct and universally recognizable facial expressions. The basic emotions can combine to form the complex emotions. Contempt, for example, is a mixture of anger and disgust. Some of the complex emotions may involve further elements in addition to the basic emotions. For example, grief may involve the basic emotions—surprise, sadness, and anger—but it usually also involves cognitive denial.

Whether the six simple emotions really are simple and basic is still up for debate. Philosopher Paul Griffiths has argued that they are the only emotions that form natural kinds and hence the only emotions that can be investigated scientifically. Other emotions do not form a homogeneous class and hence cannot easily be studied scientifically. Philosopher Jesse Prinz has campaigned against the idea that Ekman's six emotions really are simple and basic. Some of them seem divisible into more fine-grained emotional responses. Surprise, for example, may be divided into a positive sense of interest and wonder and a negative low level of panic, or fear. Anger may emerge as a mix of goal frustration and aggression.

Love is a typical case of a complex emotion, which can involve joy, anger, sadness, surprise, fear, and numerous other emotional elements, bodily sensations, and cognitive factors, including care, concern, and sexual desire. Despite the complexity of love, its discrete elements coalesce into a single emotion that can be divided into the two main categories: passionate and compassionate love. The former category encompasses romantic love and, as we will see, lust. The latter category comprises companionate love, attachment love, parental love, friendship love, and “other-love,” also known as “altruism.” All of these types of love have different qualities that overlap to a staggering degree, making the subtypes species of the same genus: love.

Sexual desire, or lust, is a form of passionate love akin to romantic love. Sexual desire isn't desire in the strict sense of the word in which desire is simply a physical longing for something you don't have or can't do: a desire to eat when famished, a desire to sleep when exhausted, a desire to stretch when crouched over a computer all day. Sexual desire isn't simply ravenous appetite. It involves bodily sensations, thoughts, perceptions, and mental imagery. Consider British philosopher Seireol Morgan's (2003) case of Johnny, who is on drugs and in trouble with the police. Johnny is having a sexual encounter with a police officer. Part of what fuels Johnny's sexual desire is his thoughts about the very fact that his sex partner is a police officer. In some sense, Johnny is getting revenge, and the thoughts of that contribute to his sexual arousal. Sexual desire is thus more akin to emotions, such as longing, love, and caring, than it is to desire in the normal sense of the word.

Even cases that may look like pure, raw physical arousal are in most cases much more complicated. Anonymous sex between two people with pieces of cloth over their heads may seem like a case of pure physical pleasure, but it need not be. The thoughts of the anonymity

likely contribute to (or subtract from) the sexual desire. We can think of lust as a perception of the body's response to thoughts, images, and perceptions of the desired person.

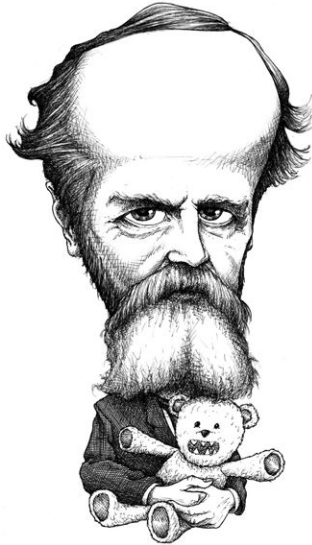
Interestingly, romantic love and sexual desire fall on a continuum in terms of their neurological underpinnings. Stephanie Cacioppo, a neuroscientist at University of Chicago, and colleagues (2012) analyzed twenty fMRI (functional magnetic resonance imaging) studies related to the effects of sex and love on the body. They found that romantic love and sexual desire involve increased activity in the insula, a part of the cerebral cortex folded within an area between the temporal lobe and the frontal lobe, and the striatum, a nearby subcortical part of the forebrain. The insula is involved in the processing of emotions and the striatum plays a significant role in motivation, reward, and conditioning. Sexual desire and romantic love, however, are correlated with increased activation in different parts of the striatum. Sexual desire is correlated with enhanced activity of an area of the striatum that processes pleasure, whereas romantic love is associated with an area of the striatum that attributes value to pleasurable activities and that also underlies addiction. The researchers take these findings to suggest that while romantic love and sexual desire are felt as different emotions, they lie on a continuum. Sexual desire transforms into romantic love once the processing of pleasure has been associated with a conditioning response of the sort involved in addiction. This supports the view that sexual desire, like romantic love, is akin to other emotions in some respects.

Is Love a Bodily Sensation?

The now classical theory of emotions is the James-Lange theory. This theory tells us that emotions occur as a result of real or imagined

bodily reactions to events. You think about your new crush. That leads to a bodily reaction, for example, experiencing heart palpitations, skipping rather than walking, singing along at the opera. Which emotion is generated depends on how you perceive those physical reactions. For example, suppose you are walking home from the pub and see David Berkowitz, Son of Sam, with a .44 caliber just a few meters in front of you. Your heart starts to pound and your breathing accelerates. Or you see an unquestionably attractive man, and your heart flutters and starts doing gymnastics. The James-Lange theory proposes that you normally will experience the same physical responses in different ways, for example as fear or romantic love. Emotions are feelings that come about as a result of changes in the body. The changes in the body do not come about as the *result* of our emotions. As William James, the originator of the theory puts it in a famous quote:

My theory... is that the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur IS the emotion. Common-sense says, we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. The hypothesis here to be defended says that this order of sequence is incorrect, that the one mental state is not immediately induced by the other, that the bodily manifestations must first be interposed between, and that the more rational statement is that we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble, because we are sorry, angry, or fearful, as the case may be. Without the bodily states following on the perception, the latter would be purely cognitive in form, pale, colorless, destitute of emotional warmth. We might then see the bear, and judge it best to run, receive the



American philosopher and psychologist William James (1842–1910). James's achievements in philosophy and psychology are quite impressive. He studied medicine and had no training in philosophy or psychology but ended up with professorships in both areas. James himself said that the first lecture on psychology he ever attended was the one he gave. James is well known for his anecdotes relayed during lectures. Stephen Hawking attributes the following to James in his 1988 book *A Brief History of Time*: "A well-known scientist (some say it was Bertrand Russell) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the center of a vast collection of stars called our galaxy. At the end of the lecture, a little old lady at the back of the room got up and said: 'What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise.' The scientist gave a superior smile before replying, 'What is the tortoise standing on?' 'You're very clever, young man, very clever,' said the old lady. 'But it's turtles all the way down!'"

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insult and deem it right to strike, but we should not actually feel afraid or angry. (“What Is an Emotion,” p. 450)

What is called the James-Lange theory really is James’s creation. The Danish scientist and medical doctor Carl Lange held that the changes in the body *are* the emotions.

Neurologist Antonio Damasio is a fervent advocate of a view akin to Dr. Lange’s. Damasio distinguishes feelings from emotions. A feeling, Damasio says, is a cognitive or perceptual state. An emotion, on the other hand, is not a psychological state but a neurological reaction in the emotional brain and the associated bodily changes. A central part of the emotional brain is the amygdala, the little almond-shaped region of the brain’s limbic system that we discussed in the previous chapter. This neural tissue fires in response to an emotional stimulus that is useful or damaging to your well-being, for example the sight of your new crush kissing your best friend.

As Damasio thinks an emotion is not a psychological state but unconscious nerve activation and associated bodily changes, his view is akin to Dr. Lange’s. Whereas Lange took emotions to be physiological reactions, Damasio thinks they are reactions in the brain and the body. The bodily changes are then experienced as a feeling. If your partner treats you disrespectfully, your emotional brain processes this input. This leads to bodily changes, and your brain then interprets these bodily changes as a particular feeling. For example, you try out your new outfit and your soulmate casually asks, “Have you gained weight?” This stimulus activates the emotional brain, which then triggers an activation of the sympathetic nervous system. This in turn affects your body by acting on muscles and hormonal levels. Your blood foams, your jaw clicks and your muscles congeal. The changes in your body then communicate to your cognitive brain that you are furious. You consider

asking whether your guy ever thought of emigrating but instead decide to take a deep breath and count to ten. You do your best to pretend you didn't hear his snarky remark. Then you serenely ask: "Do you want to do takeout for dinner?"

The Lange-Damasio view has peculiar consequences. Consider the rare condition known as "congenital analgesia." People with congenital analgesia are unable to feel pain. But unlike people with the congenital neurological disorder known as congenital insensitivity to pain with anhidrosis (CIPA), they do not have any apparent neurological damage or genetic defect. There is an absence of pain sensation from birth without the loss of other sensations or any demonstrable nerve pathology. The nerve cells in their skin respond normally and lead to normal responses in the brain, but there is no accompanying pain sensation, no feeling of pain. Because people with this condition don't feel pain, they often unintentionally harm themselves. The heat from a hotplate does not make them withdraw their hand, as touching it doesn't hurt. When they fall, it doesn't hurt, it's merely annoying and a setback if they are in a hurry. Because of this, the injuries these patients acquire can be deadly.

If Damasio's theory carried over to pain, pain would be a neurosomatic condition, not a feeling, or sensory experience. Accordingly, when people with congenital analgesia acquire a bad wound, claim to experience no pain, and behave like they experience no pain, they would nonetheless be in pain. Damasio's theory is not a theory of physical pain but it ought to be able to account for emotional pain, which is neurologically akin to physical pain. Since emotions are not *conscious* psychological states, on Damasio's view, emotional pain is not consciously felt. Whether you *feel* pain has absolutely no bearing on whether you are suffering emotionally. "You are in pain, dude," your doctor says after looking over the brain images at your annual checkup. "But I don't feel anything," you reply. Your doc

writes some mysterious symbols on a piece of paper and hands it to you. “Here is a script for morphine. Take two pills twice a day until our next appointment.” Bewildered you grab the prescription but stealthily drop it in the trashcan on your way out.

It gets weirder (of course it does). If Damasio’s view is right, then you can also feel emotional pain without being in emotional pain. Desperate to feel better, you go to the doctor to get something to calm you down. After an hour and a half in the waiting room, he is ready to see you. “Doctor, my wife left me unexpectedly this morning,” you mumble, all choked up. When your doc doesn’t reply, you cautiously continue: “I am really hurting emotionally. Could you prescribe me something to take the edge off?” Without making an effort to respond, he quickly measures your vitals and your brain activity. Everything turns out to be normal. He turns to you with a smile that looks like it’s caused by rigor mortis. “It’s just something you feel,” he says sternly. “You are not really in emotional pain. It’s an illusion. Your mind is playing tricks on you. Go home.” After such a treatment I think you would soon be looking for a new health care professional.

The James-Lange theory does not have the same bizarre consequences, because for you to suffer from emotional pain, you must *feel* the changes in the body. But James nonetheless still thought that changes in the body were essential to emotions. For you to be in love there must be an actual change in your body: gelatinized legs, a desiccated mouth, a heart playing havoc.

The question, though, is whether James was right about this. Must there be changes in the body for us to be in love? Or does it just have to perceptually seem that way to us?

I think the answer is that it merely has to seem to us that our body is undergoing certain changes in order for us to be in love. The changes do not have to actually occur.



From the 1999 movie *The Matrix*. The fetuses are the underlying realizers of the agents in virtual reality. © Gareth Southwell.

Consider a Matrix scenario, a scene from the movie *The Matrix*. The unwitting participants in the Matrix who don't realize they are in virtual reality fall visibly, irrevocably, goo-goo ga-ga in love. They experience jealousy, adoration, and wrath just like we do. They feel their hearts doing summersaults, their blood boil, and their breathing get shorter. In the movie the concrete reality that underlies the gigantic computer simulation features real human beings appallingly trapped in a fetal state, real human beings with real hearts, real blood, and real breathing, who could be undergoing physiological changes. But it is not hard to imagine a scenario in which the only conscious creatures are supercomputers living virtual lives as human beings in a virtual world. In such a Matrix scenario, the virtual conscious beings could fall in and out of love and undergo experiences very similar to ours

but there would be no hearts, no blood, and no breathing. There would be no underlying chemicals, no serotonin, no oxytocin, and no dopamine. Given that this sort of scenario is possible, and may even be reality in the near future, it's the case that emotions do not require actual changes in the body.

I say "in the near future" because the Matrix scenario may not be pure science fiction. What futurists refer to as "the singularity" is the moment of an intelligence explosion, in cryptologist I. J. Good's terms. Futurists believe machines that are fundamentally more cognitively intelligent than humans will eventually be built. When this happens, the supermachines will be able to build more intelligent machines. These new machines can then build even more intelligent machines. This pattern of replication then leads to an exponential explosion in intelligence. Futurists predict that the singularity will occur between 2020 and 2045.

In his 2005 bestseller *The Singularity Is Near*, inventor and futurist Raymond Kurzweil daringly predicts that while the singularity won't happen until 2045, full-immersion virtual reality becomes possible in the 2030s. Nanomachines can be directly inserted into the brain and can control incoming and outgoing signals by interacting with brain cells. When this happens, the Matrix scenario may become reality.

You sometimes hear people speculate that the singularity will entail a destruction of love. One argument given for this claim is that supercomputers need not reproduce in biological ways, and as a result they have no need for love for evolution to occur. Love would, therefore, be considered superfluous, and new computers without the magic ability to love would be created. However, this argument presupposes that love exists only to facilitate reproduction. Love has numerous other practical functions. It can, among other things, help create harmonious groups and can fuel acts of altruism. Furthermore,

loving others and being loved can in the best of cases feel amazing. There is no reason to think that supercomputers would not want to feel the intensity and awe of loving another creature or the delight of being loved back.

Some contemporary authors deny that emotions require bodily sensations altogether. Philosopher Martha Nussbaum holds that emotions are evaluative and eudaimonistic judgments (“eudaimonistic” means “pertaining to well-being”). Jealousy, grief, fear, and so on, she says, consist partially in a cognitive judgment to the effect that something threatens your safety or well-being, or the safety or well-being of someone you care about.

The view entails the belief that emotions do not involve perceptions of the body because you can be, say, jealous, even if there are no relevant changes in your body. Finding a person’s pulse and blood pressure being quite low despite an impending threat would not make you conclude that the person was not jealous. As Nussbaum elegantly puts it in her analysis of grief following her beloved mother’s death in the 2004 article “Emotions as Judgments of Value and Importance”:

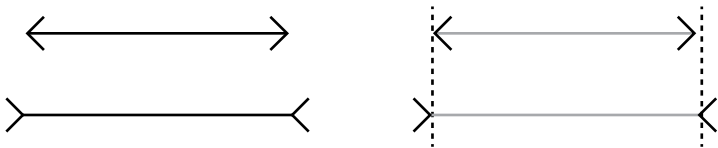
Would we withdraw our ascription of grief if these elements [bodily sensations] were missing? I believe that the answer is that there are no such elements. There usually will be bodily sensations and changes involved in grieving, but if we discovered that my blood pressure was quite low during this whole episode, or that my pulse rate never went above sixty, there would not, I think, be the slightest reason to conclude that I was not grieving. If my hands and feet were cold or warm, sweaty or dry, again this would be of no criteria value. Although psychologists have developed sophisticated measures based on brain activity, it is perhaps intuitively wrong to use these as definitive indicators of

emotional states. We do not withdraw emotion-ascriptions otherwise grounded if we discover that the subject is not in a certain brain-state. (p. 195)

Nussbaum's case for purely cognitive emotions, however, does not establish that *perceptions* of bodily changes are not essential to the emotions. It only shows that *actual* changes in the body are not necessary. The two can come apart in *illusory* bodily experiences.

An illusion is a misperception of your environment. You perceive an object as having a feature it doesn't really have. An example is the Müller-Lyer Illusion. Although the line segments in the Müller-Lyer Illusion have the same length, they appear to have different lengths.

Just as there are optical illusions that trick you into seeing something that isn't really there, there are illusions that generate unreal bodily experiences. They are known as "bodily illusions." One example of a bodily illusion is the phantom limb illusion. Ten percent of people who have had a limb amputated report that they experience the limb as attached to the body. Imaginary limbs are called "phantom limbs." People with phantom limbs frequently report sensations of pain, itchiness, tingling, tightness, burning, cold, and warmth in their missing limbs, and missing hands and arms are sometimes perceived as gesticulating as the patients talk.

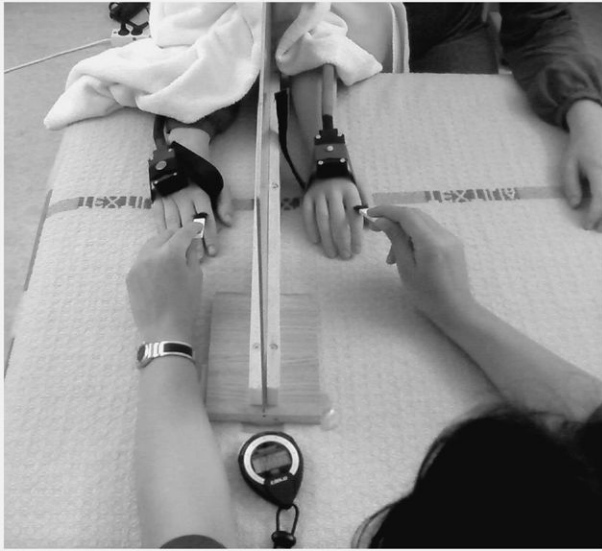


Müller-Lyer Illusion. Even when you learn that the line segments on the left are the same length, they continue to appear as if one is longer. © Berit Brogaard.

An entertaining example of a bodily illusion, known as the Pinocchio illusion, can make you feel that your nose is longer than it is. You sit on a chair blindfolded, and ask a friend to sit on a chair in front of you, with her back to you. Ask another friend to take your right hand and put it on your first friend's nose. Tap and stroke her nose gently and randomly for sixty seconds, while making exactly identical movements with your left hand on your own nose. Fifty percent of people will report having the sensation that their nose is three feet long. They feel their nose has grown just like Pinocchio's.

In the late nineteenth century, psychologists discovered that they could convince people that a rubber hand was their own. The phenomenon has come to be known as the rubber hand illusion. Place one of your arms behind a screen or box on the table, so you can't see it. Put a fairly realistic rubber hand on the table in a position that will make it look like it's your hand. Look at the hand. Then ask a friend to stroke both your real hand and the rubber hand identically. In most cases people have the sensation that the rubber hand actually belongs to them. If the friend suddenly hits the rubber hand very hard, they jump. Both the Pinocchio illusion and the rubber hand illusion cause your brain to integrate a representation of a foreign object into its body map.

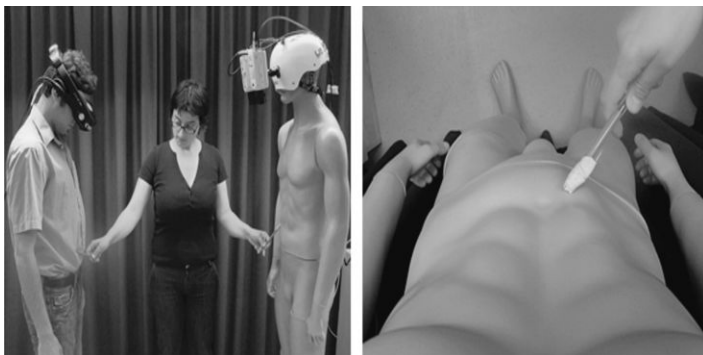
A few years after the rubber hand illusion became known to the world, Swedish neuroscientist Henrik Ehrsson, who was the first to demonstrate this illusion, managed to extend the illusion to the whole body. Thirty-two participants were wearing a head-mounted display connected to video cameras in such a way that the images from the left and right video cameras of a life-sized mannequin were presented to the participants' left and right eyes. The two cameras were positioned so that the images from each of them corresponded to the mannequin's eyes. The researchers would then stroke each participant's abdomen and that of the mannequin identically. After doing this for two



In the rubber hand illusion, stroking a rubber hand and a real hand simultaneously leads to the sensation that the rubber hand belongs to you. Mohan, R., Jensen, K. B., Petkova, V. I., Dey, A., Barnsley, N., et al. (2012). "No Pain Relief with the Rubber Hand Illusion." *PLoS ONE* 7(12): e52400. doi:10.1371/journal.pone.0052400.

minutes, something amazing happened: the participants perceived the mannequin's body—a body physically separated in space from their own—as their own! The boundary between reality and imagination had dissolved. The researchers then pretended to cut the mannequin's body with a knife. The participants showed a significantly greater increase in anxiety compared to controls whose stomachs were not stroked in the same manner as the mannequin's.

A highly peculiar example of a bodily illusion is the so-called Cotard's delusion, a condition first described by the French neurologist



The out-of-body illusion: A mannequin and a subject seen from the mannequin's perspective are stroked identically on their tummies. As a result, the subject experiences the mannequin's body as his own and exhibits great anxiety when someone pretends to cut the mannequin's body. Petkova, V. I., and Ehrsson, H. H. (2008). "If I Were You: Perceptual Illusion of Body Swapping." *PLoS ONE* 3(12): e3832. doi:10.1371/journal.pone.000383.

Jules Cotard in 1880. People with Cotard's syndrome experience themselves as being dead, putrefying, or lacking vital internal organs. The disorder is quite rare, so only a few cases have been reported. More recently, in 2000 the *Journal of Neuropsychiatry and Clinical Neuroscience* published a report of a homeless man who seemed to be suffering from the condition. He experienced his brain and vital organs as having dissolved, and himself as being dead. During conversations with doctors he continued to say things like "my brain's rotted away," "parts of my insides are gone," and "I'm dead." After some negotiation the man was hospitalized and treated with electroconvulsive therapy and psychoactive drugs and his condition improved. While a relatively rare condition, the syndrome has been found in people with psychoses such as schizophrenia and bipolar

disorder, people with lesions to higher cortical brain regions (the temporoparietal cortex), and people who suffer from migraine.

There is no doubt that we can have illusory experiences of our own bodies as real experiences. So, pace Professor Nussbaum, showing that actual bodily changes are not required for love or other emotions does not demonstrate that *experiences* of changes in the body (or mind) are not required. Love, jealousy, and grief, when felt, require such experiences. It's hard to envisage a truly grief-stricken person who is fully aware that she is grieving but who doesn't ever feel a thing.

Uniting Body and World

The James-Lange theory has taken a long step toward solving the problem of the nature of love and other affections. But something fundamental is missing. Emotional stimuli sometimes cause changes in our minds, not just our bodies. Thinking about your new love can make your thinking confused and your vision blurry. In some people, emotional stimuli give rise to a visual phenomenology. The subject Melanie in psychologist Russ Hurlburt and philosopher Eric Schwitzgebel's 2004 book *Describing Inner Experience* reports that amusing stimuli give rise to an orange-pinky color phenomenology in her.

Hurlburt and Schwitzgebel are skeptical about Melanie's description of her phenomenology and speculate that she may be using a metaphor. But Melanie's experience seems quite plausible to me. Since I was a child I have had vivid visual images in response to fearful or uncomfortable thoughts. This is an instance of the phenomenon called synesthesia, a condition in which the brain's perceptual channels are mixed in peculiar ways. The most common form of synesthesia

is grapheme-color synesthesia, in which numbers or letters are seen as colored. In my case, fear-induced images take the form of highly wrinkled bluish-greenish paper moving around in an irregular pattern. Sometimes the images consist in large quantities of quickly presented irregular and wrinkled pieces of bluish-greenish cloth moving around very quickly. Not all of my uncomfortable or fearful thoughts are associated with this sort of phenomenology, but its occurrence is a sure sign of uncomfortable or scary thoughts. The visual phenomenology gives rise to further changes in my body. The images themselves elicit anxiety and nervousness. When I was a child I used to be deadly scared of the moving wrinkled paper and cloth in my head. The fact that emotional stimuli can create these kinds of changes in the mind shows that emotions are not simply perceptions of changes in the body state. They can also involve changes in the state of the mind. Being an emotion, love, too, can involve changes in your psychological states.

The James-Lange theory leaves out another important aspect of emotions, which is vividly illustrated by the emotional responses of the victims of the horrific cases of head transplants that took place in the twentieth century.

In 1954, Soviet surgeon Vladimir Demikhov grafted the head, shoulders, and front legs of a puppy onto the neck of a mature German shepherd. The surgery was a success. The double-headed dog woke up alive and well from the anesthesia. As the two heads shared the same body, they had many of the same sensory experiences. When one head felt hungry, so did the other. When they were in a hot room, both heads panted. If the day had been exhausting, both heads yawned. But the two heads displayed different emotions. The older dog occasionally tried to shake off the head attached to his neck. In an attempt to retaliate, the puppy would bite the older dog on the ear.

Moral horror aside, this case provides fascinating insight into the nature of love and other kinds of emotions. Since the two heads had connected bloodstreams, and they shared a single body, they had the same surges of chemicals in the body and brain. For example, if they were exposed to a fearful stimulus, both heads would be exposed to the same surge of adrenaline. Despite this, the two heads experienced different emotions because they didn't perceive their environment in the same way. Whereas the mature dog responded to the puppy, the puppy reacted to the mature dog. The emotion each head felt was not simply feelings of somatic, or bodily, reactions. They involved perceptions of the other doggy's head.

Our vernacular concept of love supports the notion that love is not simply experiences of changes in the body or mind. In ordinary language we say things like "Zoe is crazy about Brandon," "Brandon fears getting hooked," "Dick is jealous of Mr. Bean," "April has a crush on August," "Gertrud is thrilled that daddy is home from the nuthouse." Ordinary language reveals that love and related emotions represent not just our bodies but also things and scenarios in the outside world. In this regard, love is different from free-floating bodily states that do not represent anything or represent a thing only in a very vague and general way, such as when depression represents the whole world as a gloomy place to be.

Suppose you are fully aware that your friend Nick surgically inserts a microchip in your head that causes you to have loving feelings *for no one in particular* as long as Nick keeps activating it. You are aware of your body responding to Nick but you are not in love with Nick because you don't perceive him as an object of your emotion. In this case, you are not in love with anyone. You have a bodily response that mimics love but really is much more like free-floating joy or anxiety, which is a mood rather than an emotion.

How can love represent things in the world? The notion of representation is commonly associated with words. Words represent. They are symbols; they stand for something else. The word “douchebags” represents, or is directed at, douchebags, people who have transcended the levels of jerk and asshole but have not yet reached the level of tyrant or inquisitor. But it is not just words and sentences that can represent something in the outside world. As this story illustrates, a simple “thumbs up” can say more than words.

A guy had a dispute with a taxi driver at a casino. Two years later the man comes back and goes to the same casino. This time he wins money. As he exits the casino, he sees a long line of taxi drivers, and at the end is his enemy from two years ago. Seeing this, the man decides to get his revenge. He goes up to the first taxi and says: “Hey will you give me a blowjob?” The taxi driver says: “No you freak, get out of my car!” The man then goes on to the next car and says: “Hey will you give me a blowjob?” The taxi driver replies: “No you maniac, get out of my car!” The man continues to do this all down the line until he reaches the last taxi, and sees his enemy. The man asks: “How much for a ride to the airport?” Not recognizing him, the driver replies “\$5” “Okay” says the man and he gets in. Then as he passes the line of other taxis, he sticks his hands out the window and gives them all a big thumbs up. (“Revenge on a Taxi Driver”)

The man’s “thumbs up” conveys the information that the man’s enemy is willing to give his customers a sexual favor. Even though this information does not match a fact in the external world, it is still the case that the man’s “thumbs up” (wrongly!) represents the man’s enemy as a male prostitute.

The fact that love can represent things in the outside world may explain why love often lasts longer than bodily experiences that do not represent anything in external reality. You can easily recover from the fleeting pain caused by accidentally getting poked in the eye, but it can take years to recover from childhood abandonment, an excruciating breakup, or the death of a child. One reason for this is that cognitive representations tied to love and related emotions can be stored in memory for a very long time. A woman who has gone through childbirth without pain medication normally forgets how much pain she went through in a matter of weeks. But a child that was abandoned never forgets.

Contemporary scientists have proposed that love and other emotions have two elements: physical arousal and a cognitive element. The cognitive element is an interpretation of the experienced physical arousal relative to the situation you are in. We experience the physical arousal and classify it as fear or anger or love relative to our situation. For example, if an angry dog is attacking you, you will normally interpret your physical arousal as fear. And if you are on a first date with a person you have been pursuing for ages, you will normally interpret your physical arousal as jittery love. The idea is that our emotions consist of both the experience of the physical arousal and our interpretation of the bodily experience relative to our situation.

The two-stage theory of emotions is based on a fascinating empirical study that shows that physical arousal is experienced as different emotions in different cognitive circumstances. Stanley Schachter, an American psychologist, and his colleague gave 184 male college students one of two types of injections: a mild stimulant (adrenaline) or a placebo injection (a saline solution). The students were told that they were given an injection of a new vitamin compound “suproxin” to test their vision. One group of subjects was told about the injection’s potential side effects (shaky hands, pounding heart, short breathing).



Stanley Schachter (1922–1997), American psychologist and defender of the two-factor theory of emotions. © Gareth Southwell.

A second group was told that the injection would produce side effects such as itching, numb feet, and headaches. A third group was told that there would be no side effects. After the injections the participants were left alone for twenty minutes with a stooge (blind to the subject's condition). The stooge was either told to behave joyfully, for instance, play with paper, or behave rudely and angrily. The subjects' emotional states were measured relative to the stooge by observation and self-report. The results were astonishing. Subjects who were misled or naive about the injection's effects behaved similarly to the stooge, either joyfully or angrily. Those who were informed of the expected effects of the stimulant and were given the placebo had little emotional response to

the stooge. The informed students were thus able to correctly attribute their feelings to the stimulant, whereas the uninformed or misinformed students were affected by the behavior of the stooge. This led the researchers to suggest that which emotional experience you have depends on how you interpret the situation you are in. The very same body state may be interpreted as frustration in one context but joy or love in another. Love thus requires interpretation in addition to a perception of a bodily change.

Most researchers sympathetic to the James-Lange theory of emotions now admit that love and other emotions involve a cognitive or

perceptual element. One prominent defender is philosopher Jesse Prinz. Prinz conjectures that it is central to emotions that you recognize that something external to you can affect your well-being. If you consider your new crush romantically attractive and lovable and you respond with sweating and heart palpitations, then your response constitutes the emotion: romantic love. If you do not consider your childhood friend romantically attractive and lovable because she is like a sister to you, then the very same response is not a case of romantic love.

Strange Connections

The two-stage theories of emotion run into trouble. Alfred is working for the police catching stray dogs. He is currently in front of a stray dog. The dog is a wild beast. It could kill him any second. As Alfred is used to being around mad, stray dogs, he does not normally have any fear response to them. But today his body is in a state of intense fear. He perceives the state of his body as being a response to a deadly poisonous brown snake next to the stray dog. In the envisaged scenario, Alfred is afraid of the snake, not the dog. Yet the conjunctive approach predicts otherwise: Alfred perceives changes in his body state, *and* he judges that both the dog and the snake are dangerous. So the conjunctive approach predicts that Alfred's fear is fear of the dog *and* fear of the snake. But intuitively, Alfred is not afraid of the dog. Let's call this "the connection problem."

The connection problem arises also in the context of love. Suppose you are madly in love with Jenny. Despite your devotion, you may recognize that both Jenny and Penny are attractive, beautiful, lovable, sweet, cute, kind, smart, and available. You also have a bodily feeling of being in love. On the conjunctive theory, you would be in



Alfred perceives the snake but not the dog as a cause of his trembling. But he recognizes that both present a threat to his well-being. So the conjunctive theory wrongly predicts that Alfred fears the snake and the dog. © Gareth Southwell.

love with both Jenny and Penny. But you are only in love with Jenny. Only Jenny is a perceived cause of your bodily feelings.

Emotional Responses to Fiction

Another problem for two-stage theories concerns our emotional responses to fiction. When engaging in fiction, we respond with emotions. We are genuinely moved by fiction. Fiction triggers affective responses: reflexes, moods, and complex emotions. We feel pity for

Anna Karenina and fervently desire for her suffering to end. We are genuinely distressed by her tragic suicide and wish she could have found a less disastrous way to dissolve her inner emotional conflicts. We take pride in Dorothy Gale's courage, sweetness, and tolerance. We feel sympathy for the poor baby because she is in Oz, so far away from Kansas and just wants to go home. (The movie would have triggered quite a different emotion if it had started off with Dorothy writing a letter saying "Auntie Em, hate you, hate Kansas, taking the dog. Dorothy.")

In the shocking and widely banned music video for the song "Happiness in Slavery" by Nine Inch Nails, supermasochist Bob Flanagan lies down on a torture machine that molests and kills him in the most horrific ways. The contraption distends his penis, slashes his skin, and thrusts its iron tentacles into his hands and abdomen. It is no doubt the sickest video clip ever made—a horror film grotesque. Despite our knowledge that the events portrayed in the video clip are fictive—and rest assured they are—they provoke genuine repulsion, horror and fear.

In a famous scene in the movie *Hannibal* from 2001, Lecter (Anthony Hopkins) removes the top of the still-conscious-but-dazed Krendler's skull, cuts out a piece of his brain, sautées it in a pan by the table and feeds it to Krendler while he is fully conscious. We know the scene is completely fictive, but it nonetheless is capable of inducing a strong feeling of revulsion in us, or maybe an uncanny, vicarious thrill.

The emotion-provoking pictures have no bearing on our well-being or the well-being of others. I am well aware that no one is harmed when I watch Lecter feed Krendler's own brain nicely sautéed in butter to him. I know that Krendler does not exist and hence does not suffer. I do not really desire for his suffering to end. So if genuine emotions always have some bearing on well-being, then my emotional responses to fiction are not genuine. This is what philosopher Noël Carroll has called the "paradox of fiction."

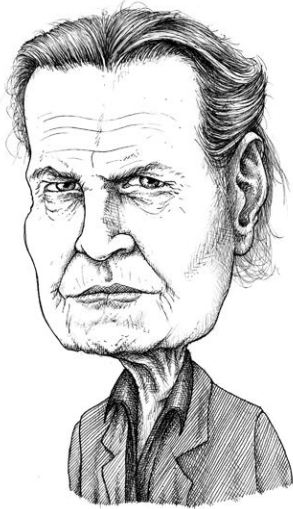
The best way to get around the paradox is to reject the idea that emotions must always have some bearing on your well-being for them to obtain. In this regard, emotions are analogous to belief. We don't think that beliefs must always be true for them to obtain. You can believe that Haitians suffer, respond with emotions to their suffering, and desperately wish to go on some mankind-saving mission, even if it does not have any bearing on your well-being. It's your realization that they suffer that triggers your emotional responses, not their suffering in relation to *your* well-being. Similarly, the suffering portrayed in fiction can give rise to feelings of compassionate love, anger, and sadness, even if it has no bearing on your well-being.

The case of fiction shows that love and other emotions do not require beliefs or appearances as of something being real for them to obtain. Merely imagining your young beautiful child lying dead in a white casket can produce a grief response, merely imagining your hubby having mind-blowing sex with some skinny blond Botox chick with bleached teeth can produce jealousy, and visualizing children with progeria can trigger strong sympathy and an urge to cure their disease, because imagination and visual imagery can lead to emotions. Visualizing frightening or sad events can activate the sympathetic nervous system in much the same way as external stimuli. Reading a story, seeing a movie, or visualizing an event can produce the same changes in the nervous system as real-world stimuli, making us unstrung, panic-stricken, restless.

Perceived Responses

The theory I defend is somewhat more controversial compared to the prevailing theories. Love cannot be identified with changes in your body, such as heart palpitations, nor can it simply be your perception,

or feeling, of such changes. Rather, love is an experience of your body and mind responding to your beloved's lovable qualities. I call this view "the perceived-response theory." Your emotions are appearances of your body responding to the emotionally salient qualities of the object of your affection.



G. E. M. Anscombe (1919–2001). Anscombe was a student of the Austrian-British philosopher Ludwig Wittgenstein. She was married to the British philosopher Peter Geach (1916–2013). Together they had seven children, whom Elizabeth reared while maintaining her career as a prominent philosopher. © Gareth Southwell.

The cause you experience as being the real cause of your feelings needn't be the real cause. G. E. M. Anscombe, a twentieth century philosopher of mind, wrote:

A child saw a bit of red stuff on a turn in a stairway and asked what it was. He thought his nurse told him it was a bit of Satan and felt dreadful fear of it. (No doubt she said it was a bit of satin.) What he was frightened of was the bit of stuff; the cause of his fright was his nurse's remark. (*Intention*, p. 16)

Anscombe's point is this: Dick can be mad at Mr. Bean even if Mr. Bean wasn't a cause of Dick's foaming around his mouth, Gertrud can be feel warm and fuzzy about the fact that Daddy is home from the nuthouse even if Daddy's being home from the nuthouse wasn't a cause of Gertrud's smile, and April

can have a crush on August even if August wasn't the cause of her crush.

In Anscombe's example, the actual cause of the child's fear is the baby-sitter's innocuous remark "That is a bit of satin." *The cause the child experiences as the real cause* is the frightful Satan. The child is wrong. She has an illusory experience of the devil eliciting her dreadful fear.

The perceived-response theory does not require actual somatic changes for love to obtain. A disembodied brain in a vat can have an *illusory* experience of her crush causing her heart to run a marathon on an empty stomach even if the appearance of somatic changes is the result of a scientist stimulating neurons in her brain. Nor does the theory require that the things that trigger the emotional response be real. I can feel compassion when I read about Anna Karenina's suffering, even though she is merely a fictional character. The compassion is a perception of my body responding to Anna as she occurs in my mind. My compassion is an *illusory* perceptual experience, but it is an emotion nonetheless.

The proposed view thus does away with both the connection problem and the paradox of fiction. It also explains a phenomenon known as "emotional conditioning." If you have experienced emotional pain in the past in response to a traffic accident, a grim breakup, or childhood abandonment, a similar future situation will be more likely to automatically trigger a negative response than a positive or neutral reaction. Stored emotional memories help create emotional responses to future situations and thus help us act appropriately.

Fear conditioning is an example of a process that leads to storage of emotional content in memory. John B. Watson and his assistant Rosalie Rayer's experiment on eleven-month-old Albert is a now classic experiment demonstrating fear conditioning. The research was carried out in 1920 at Johns Hopkins University many years

before institutional research board (IRB) approval became required for all protocols involving human subjects. Albert was first given a number of baseline tests. He was shown a white rat, a rabbit, a dog, a monkey, and other items, and he showed no fear toward any of them. The researchers then gave Albert a white laboratory rat. Albert began to play with the rat, showing no fear. The researchers then initiated the learning process. Whenever Albert touched the rat, they created a loud sudden noise behind Albert by striking a suspended steel bar with a hammer. The noise scared little Albert, and he started to cry. After several trials, Albert was presented only with the white rat. Now Albert no longer wanted to play with the rat. Simply seeing the rat was enough to cause a fear response in him and he would start to bawl because a neural memory association had been made between white rats and scary noises. His fear response carried over to other furry animals and lasted for the rest of his life.

Fear conditioning explains why we perceive some things as dangerous and others as harmless. Albert feared furry white animals because of his early negative experiences with them. Likewise, a commitment-phobic bloke likely fears relationships because of his early negative experiences with them. The fearful qualities we attribute to relationships, animals, or other apparently fearful things can in all likelihood also be a product of evolution. Our perception of, say, snakes, overly controlling partners, and brutal sex as frightening may well be a result of inherited neural patterns. It's the appearances of our bodies or minds responding to the *emotionally salient* qualities of the thing we fear that constitute the fear.

In short, love is not a conjunctive psychological state consisting of perceived bodily changes and a cognitive judgment (or perception) regarding the beloved. Rather, it is an appearance of the body or mind responding to a particular rendition of the beloved.

What distinguishes consciously felt love from other conscious emotions is the cluster of prototypical phenomenal properties accompanying it. Social anxiety is associated with one cluster of prototypical phenomenal properties. Standing in front of an overcritical audience about to give a PowerPoint presentation, you may feel your heart thumping wildly, your skeleton dissolve, your new Mickey Mouse voice implant make little noises. Anger is associated with a different cluster of prototypical phenomenal properties. If you are engaged with your sinister gentlemen friend, who just told you “You look like you were just beaten up” because your liquiform mascara has tainted your cheeks, you find yourself responding to your friend in ways characteristic of fury: You scream, “Oh [pause] My [pause] God! Alert the media!” Yet another cluster is characteristic of breakup sorrow. After being dumped by the one you thought you would grow old with, you may feel your guts being sluggishly cut out of you with a butter knife and squeezed through a meat grinder, hear your beau and his voices in your head, and feel your sandpapery cheeks dissolving in tears. And romantic love: thinking about an upcoming romantic evening with your new squeeze, you may feel bawdy butterflies breeding in your belly, your iPhone overheating from the ceaseless one-directional river of enchanting text messages, and your nipples becoming dangerous dagger points in the company of wonder boy. Whether you can properly be said to have a given emotion will depend on how you appraise the object of your emotion (for example, as dangerous, lovable, dismaying) and how many of the prototypical properties you feel and how central they are to the prototype.

4

HOPELESSLY DEVOTED TO YOU

IRRATIONAL LOVE

You can love another for just about any reason or for no reason at all. Sounds weird? It's not. You can kill for just about any reason, though very few are good reasons. This idea, that true love can occur for any reason or for no reason at all, does not require that we appreciate the one we love. So, the view is at odds with the idea that true love requires us to appreciate the positive value of another person. In his acclaimed article "Love as a Moral Emotion" from 1999, philosopher J. David Velleman writes: "Being loved does not entail being valued on the basis of our distinctive qualities, such as our yellow hair; on the contrary, it entails being valued on the basis of our personhood, in which we are no different from other persons."

Contrary to Velleman, I hold that that our loved ones *must* possess certain physical attributes or personality traits in order for our love to be rational, but they needn't possess any particular physical attributes or personality trait for our love to be true love. Or, to put the point differently, not all love is rational, but just as we sometimes act in irrational ways, so our love can be irrational. Rock-climbing in difficult terrain without a safety line is irrational, or imprudent, but it is nonetheless a true, or real, act. Likewise, foolish love is true, or real, despite its lack of rationality.

My view thus leaves room for the idea that love can be meaningfully said to be rational and irrational. Like actions and beliefs, love and other emotions can be irrational. Ethan's fear of flying is irrational because he knows that flying is safer than walking from the

pool table to the restroom at the local pub in Detroit. Zoe's continued love of Brandon was irrational because it was plainly obvious that he was bad for her well-being.

The philosopher Ronald de Sousa has said that emotions are irrational (or what he calls "unsuccessful") when the emotional response does not fit the perceived object. Fear of flying is an example of this. Flying, despite being safer than eating lunch in the campus cafeteria, may elicit fear responses. Because flying isn't dangerous—or at least is safer than other modes of transportation—the responses do not fit the object. But lack of rationality can also reside in a misperception of the properties that sustain the emotion. If a child misperceives a dangerous spider as Satan and responds with trembling, the trembling fits the dangerous object, but the fear is based on a misperception of the object as Satan and hence is irrational. When we see our romantic and *objectively lovable* partners as idealized, god-like versions of who they are, our love fits them, but the response is based on a misperception of the qualities that sustain our love. So, the love is irrational despite perhaps being perfectly reasonable from our own point of view. The same goes for love of a ghost or an invisible friend or the demons in your head.

Your love for a person does not fit the beloved properly (that is, the person is not lovable) if your continued love of the person would be likely to decrease your overall happiness or well-being. Just as it is irrational to fear an innocent teddy bear, so it is irrational to be in love with someone who beats you with a stick every day or to lust for a bloke who moonlights as a serial killer.

While all qualities of a person are important for determining whether your love matches them, not all their qualities are relevant to whether your love misrepresents. If you are red/green colorblind, you cannot distinguish red and green. Red and green things look "grayish" to you. So, you misperceive your beloved, but the color of your beloved is not normally what sustains your love for her, so this misperception would not normally be relevant to whether your love

is rational. If, on the other hand, you are in love with your own fantastical creation of your significant other (S.O.) instead of your S.O. as she really is, your love is irrational.

The case of Sarah Edwards illustrates just how irrational love can be. Sarah, who was thirty-three at the time of her death, suffered eighteen years of jealousy and brutality, of punching, strangling, bloodshot eyes, carpet burns, and death threats from her husband Manu Sikuvea. On the fatal day, Easter Monday, 2007, Sarah was driving home from a wedding with her husband when he started hitting her. He stopped the van so he could put more force into his ruthless beating that lasted more than two hours. He also sexually abused her in brutal ways. She died shortly thereafter from multiple blunt force trauma to the head. The court was told that the sexual violence was so severe she would have died from the sexual injuries alone. Sarah's family knew about the beatings and sexual abuse, which had started early in the marriage. They encouraged her to leave him. But she didn't want to. She loved her husband unconditionally. Every time he beat her, she made excuses for him. She believed that he loved her and wouldn't do it again. She never gave up the hope that he would change. Her love was not only unconditional, it was also shockingly irrational.

My proposed account of the conditions under which emotions are rational has some bearing on the paradox of fiction. Emotions that do not fit the object or involve a misperception of the emotion-sustaining qualities of the object are irrational; and as fictional characters don't exist, it follows that our emotional responses to fiction are irrational. I think that is indeed the case, and it is not a hard bullet to swallow. The standard range of emotions in response to fiction would have been rational had the characters been real. But there is nothing rational about fearing for the life of an experienced stuntman hanging from a cliff or crying over a young actress lying on an autopsy table, holding her breath and pretending to be dead.

When watching an enjoyable movie or reading a good novel, however, we temporarily suspend our disbelief. The fictional universe is briefly experienced as if it were real. Within this fictional universe, which we now perceive as real, our emotional responses to the experienced events are rational.

We should draw a distinction here about being taken in by a piece of fiction and not being taken in. When we are not taken in, we don't have a sense of the portrayed events as being real. In the Müller-Lyer Illusion, I have a perceptual appearance of two line segments being of unequal length despite the fact that I know they are the same length. But when I am not moved by a fictional work, it does not appear to me that the characters really exist. When I read a poorly written passage in a novel or I have trouble focusing, the characters appear at best like schematic visual images in my mind triggered by words on a page, and when I watch an unpersuasive scene in a movie or I am distracted while watching, the movie characters seem to be what they are: actors being filmed for a botched scene. The result is a perceptual experience of the medium, a cinematic representation on a big screen. But when I am taken in by the story, I stop paying attention to everything outside the realm in which the characters live their lives. They appear real, and at that point they are in a position to lift the heavy weight of unyielding everyday concerns from my shoulders and cause powerful, real emotions in me, emotions that are rational only for as long as I live in the fictional universe.

Does the Idea of Irrational Love Make Sense?

Some think it makes no sense to talk about love as rational or irrational. Philosopher Laurence Thomas holds that love cannot be meaningfully said to be rational or irrational. "There are no rational considerations

whereby anyone can lay claim to another's love or insist that an individual's love for another is irrational," says Thomas (*Reasons for Loving*, p. 474). This view is encapsulated in received wisdom in the form of sayings like "love is blind," "love has no reason," "love is temporary insanity." We cannot lay claim to another's love because there is no irrationality involved in ceasing to love a wonderful person. As Thomas puts it, "There is no irrationality involved in ceasing to love a person whom one once loved immensely, although the person has not changed." Common wisdom has it that love differs from other emotions in resisting rational assessment. Ceasing to fear a real Jack Torrance howling "Heeere's Johnny!" (as in the movie *The Shining*) is irrational. You should fear things that present an actual threat to your well-being and not fear things that are harmless.

Is this common opinion correct? Are we morally free to stop loving a person "just because" and not because the person has changed? Should we stay with people we once loved but love no longer? Surely not. The idea that your love must last forever is reminiscent of the historical views of love that Victoria Woodhull famously fought against in the nineteenth century. Woodhull, who ran for president in the United States, was a spokeswoman for free love. "I have an inalienable, constitutional and natural right to love whom I may, to love as long or as short a period as I can; to change that love every day if I please, and with that right neither you nor any law you can frame have any right to interfere," she remarked in an 1871 speech to an audience of 3,000 in New York a year before she became the first woman to run for president (*A History of Women in America*, p. 171). She was accused of being a prostitute despite speaking out against prostitution. She spoke out against men and women having sex for any reason other than love. She even went so far as to say that marriage for food and shelter, and not for love, is a form of prostitution.

You should, of course, not stick around in a relationship with someone you don't love, even if there is no good reason not to love him or her. But the view that love can be meaningfully said to be rational or irrational does imply that you should. Love that already obtains is rational if there is a proper fit between the loving response and the beloved and the love doesn't misrepresent reality. If your love for your sweetheart is irrational, you should try to discontinue that love—make an effort to fall out of love and eschew things that might deepen that irrational love.

But the constraints on rational love don't tell us anything about when it is irrational not to love someone we don't love. They only tell us when it is irrational to love someone we already love. The argument against assessing love in terms of rationality is confusing the conditions under which people ought to cease to love someone and the conditions under which people ought to continue to love someone. Good reasons for loving your sweetheart only renders it *permissible* for you to love her; it does not require that you begin or continue to love her. Love is irrational, and hence impermissible, if there is not a proper fit between the loving response and the beloved or the love misrepresents. But when there is a proper fit and no misrepresentation, then continuing the love is in all likelihood optional, just as you have the choice of whether you want to perform actions that are not wrong. It's optional whether you want to raise your arm right now. It's perfectly fine for you to do it. It's a permissible act. Punching someone, on the other hand, is (usually) irrational and morally prohibited. The upshot is this: if you cease to love someone, it's not irrational to leave that person, even if he or she hasn't changed a bit. In this respect love is indeed an anomalous emotion: it's permissible not to love a wonderful person, whereas it is impermissible to fail to fear a dangerous thing.

But some may think that there are circumstances in which a failure to love is inappropriate. When you look at your child's smooth

baby skin, her plump cheeks and long black eyelashes, the little smile on her lips and her hands curled up under her chin, it is hard to imagine not loving that little creature. A miniature human created in your own image. Parents love their children. It's how it's meant to be. It's normally considered highly inappropriate for a parent not to love her child. Yet some simply don't. In 1983, Diane Downs shot her three children. To make it look like a carjacking she shot herself in the arm and drove to the hospital. Her plot unraveled when the forensic evidence didn't add up. She was also acting too calm in the hospital and a surviving child was showing fear when she entered the room. Downs later confessed that the children had gotten in the way of her relationship.

In by far the most circumstances we are sickened by the thought of a mother not loving her child. It seems to be on a par with a parent failing to feed her baby or ensure that her youngster is safe. Cases of a parent not loving her young child could possibly be equated with instances of evil-infested negligence. We certainly feel estranged from Eva's emotional passivity, revulsion even, toward her young child in Lionel Shriver's incredibly memorable novel *We Need to Talk about Kevin*. Eva seems devoid of normal parental feelings. "Now that children don't till your fields or take you in when you're incontinent," Eva writes, "there is no sensible reason to have them, and it's amazing that with the advent of effective contraception anyone chooses to reproduce at all" (pp. 26–27). Her failure to form a bond with the young Kevin who refuses to breastfeed or use the potty until the age of six seems oddly cold, and we cannot help but wonder whether the alienated mother—who in a fit of parental wrath breaks her son's arm when he's six—is partially to blame for the later Columbine-style massacre.

With few exceptions, lack of parental love comes across as unjustifiable. But I want to leave open the possibility that parental love

differs from other forms of love in this respect. In his article “The Dear Self” from 2001, philosopher Harry Frankfurt argues that “the loving concern of parents for the interests of their small children resembles self-love.” If parental love is akin to self-love, then you ought to care about your offspring insofar as you ought to care about yourself. But none of this carries over to romantic love. We don’t get the sense that romantic love is ever mandatory. It can be inappropriate to love someone romantically but not to fail to love them. It is inappropriate for a grown man to love a child romantically but it is not inappropriate for him to stop loving his wife.

Here is another reason that someone may balk at the idea that love can be assessed for rationality. If love can meaningfully be said to be rational and irrational, then love is rational only when it is felt *for a reason*. But some think this doesn’t make sense. The philosopher Robert Solomon held that loving a person for his or her physical attributes or personality traits is not really love of the whole person. If I love you for your ripped abs, then, according to Solomon, I don’t love all of you.

Although I don’t hold that love can be justified by only a few superficial qualities, I don’t think Solomon’s point is convincing. I think you can fear a Chihuahua for the reason that you perceive it as a threat to your well-being, but you fear *the Chihuahua*, not simply the threat it poses to your well-being. Your fear of the threat the dog poses to your well-being internally motivates you to fear *that dog*. Similarly, you can love someone for her chartreuse hair, sensuous eyes, or wacky humor. Her possession of those qualities internally motivates you to love *her*. As Estelle (Shirley MacLaine) puts it in the movie *Valentine’s Day*, “When you love someone, you love all of them. You gotta love everything about them, not just the good things, but the bad things too. The things that you find lovable and the things you don’t.”

Now, love is not rational simply by virtue of your beloved having chartreuse hair. Her hair color is neutral with respect to whether there is a good fit between the love and the beloved. Your beloved having chartreuse hair would be relevant if it were part of what made you attracted to her. But a person having chartreuse hair, being as cute as the clownfish Nemo, or being able to do a headstand for three hours is not itself a valid, exhaustive reason for love. A valid reason for love, a reason that makes love rational and hence permissible, is a good fit between the love and the beloved and an accurate depiction of the beloved's love-sustaining qualities.

Once we shy away from a conception of love as resisting assessment for rationality, we are free to treat all kinds of love as real, true love—a real emotion just like fear, anger, loneliness, and pride. Of course, all forms of love can be irrational. My friend Zoe's affection for Brandon and her hatred of herself and the world are irrational. She now sees that. In a recent letter to me, she wrote:

Love really is temporary insanity. I almost have to bite my arm in order to push away my obnoxious and appalling thoughts about Brandon. I must forget him, pull him out of me, hide him away in a safe and throw the key away. I can't believe what's happening. I am on the verge of an emotional breakdown. I should vamoose to Jersey and stay off the grid until the worst blows over. But all I want to do is remain curled up in bed. I don't see how I can ever again become happy deep inside. I don't know whether my heart will ever feel weightless again. I am dead inside. It's hopeless. I'll never trust another man. Never. I simply can't see myself putting my heart out there. I know it's ridiculous. But I can't change how I feel. Please let me forget him. Please please please. I must forget him. I wish he could become a teeny tiny memory... as if ten years had already done their work.

Zoe still needs to come to terms with her newly acquired fear of intimacy and her distrust of men. Her distrust may lead her to forsake men for all eternity. Or seduce and betray as many random dudes as possible, or rip their reputation, or boil their kids' rabbit or parakeet. But that, of course, would be unfortunate, like being a vegetarian not because you love animals but because you hate plants.

You Call It Madness, I Call It Love

There has been a tendency since the 1970s to treat romantic love and lust (even when understood as akin to an emotion) as different from true love, exactly because they can be, and often are, irrational. American psychologist and bestseller author Dorothy Tennov said about romantic love that it is a state distinct from true love; it's in its nature, a transformed state. American journalist and critic of American life and culture Henry Louis Mencken held that "To be in love is merely to be in a state of perceptual anesthesia—to mistake an ordinary young man for a Greek god or an ordinary young woman for a goddess" (*Prejudices, First Series*, p. 200). And in his 1983 book *We: Understanding the Psychology of Romantic Love*, American psychologist and bestseller author Robert Johnson wrote: "Romantic love is not love but a complex of attitudes *about* love—involuntary feelings, ideals, and reactions" (p. 45). Here is a memorable quote from the movie *Captain Corelli's Mandolin*, making the same point:

Love is a temporary madness. It erupts like an earthquake and then subsides. And when it subsides you have to make a decision. You have to work out whether your roots have become so entwined together that it is inconceivable that you should ever part. Because this is what love is. Love is not breathlessness, it is

not excitement, it is not the promulgation of promises of eternal passion. That is just being in love which any of us can convince ourselves we are. Love itself is what is left over when being in love has burned away, and this is both an art and a fortunate accident. Your mother and I had it, we had roots that grew towards each other underground, and when all the pretty blossom had fallen from our branches we found that we were one tree and not two.

Beautiful though it is, there are several problems with this sort of cynicism about romantic love. First, the irrationality of romantic love is hugely exaggerated. Though romantic love sometimes attributes false affirmative properties to the beloved, it need not do so. In the best of cases the lovelorn recognizes the flaws of the other but ascribes value to the other in spite of his or her flaws.

Moreover, even if we do sometimes attribute false affirmative properties to people we love, this kind of misattribution is hardly something that takes place only in cases of romantic love. It's more likely an instance of the halo effect. The halo effect is the tendency we have to attribute additional positive traits to likeable people.

In the 1970s, social psychologists Richard Nisbett and Timothy Wilson divided student subjects into two groups watching two different videos of the same teacher in a classroom. In the first movie the teacher was kind and friendly to the students and took their questions seriously. In the second video the teacher answered questions in a cold and distant manner. Afterward the students were asked to rate the teacher's personality traits. The group that had been watching the first video rated the teacher more likeable and more attractive than the second group. The first group even found his strong Belgian accent more pleasant than the second did.

When we idealize romantic partners we don't know very well, this may simply be an instance of the halo effect. Because we are in

love with them, we find them likeable and attribute a number of positive personality traits to them. If the conclusions of the studies of the halo effect are correct, however, our tendency to misattribute positive features to our lovers cannot be an argument against romantic love being a case of true love, as we are equally prone to misattribute positive properties to people we feel compassion or admiration for.

Furthermore, the irrationality of romantic love can hardly be a reason that it is not a kind of “true love.” Skeptics about the trueness of romantic love often admit that it is an emotion. But emotions are subject to rational assessment. So the prospective irrationality of romantic love is to be expected. The fact that this emotion is sometimes irrational doesn’t disqualify it from being a kind of real love, albeit a kind that is radically different from compassionate love. If rationality were a constraint on real love, then compassionate love would not be real either, except in rare cases. It too can be irrational.

Irrational Compassionate Love

Even the kinds of compassionate love that we deeply admire can be irrational. Parents sometimes irrationally sacrifice their lives for the sake of their unborn children. In 2007, Lorraine Allard learned that she had cancer. She was four months into her pregnancy. The doctors recommended that she have an abortion and started chemotherapy. But Lorraine decided to wait until the child was born. “If I am going to die, the child is going to live,” Lorraine said. When the child was born, Lorraine started chemotherapy, but it was too late. Lorraine died in January 2008; her child survived.

What Lorraine did may well have been the morally best thing to do, depending on one’s theory of morality. If utilitarianism is the correct view, we should attempt to maximize pleasure and minimize

pain. Lorraine's unborn son had more good years ahead of him than she did. So one could argue that the unborn child should live and that she should die. But I suspect that these were not the kinds of mathematical considerations that were driving Lorraine. She acted out of love, not on the basis of sheer calculation. Her love made her assign more intrinsic value to her baby than to herself. But the lives of moral beings have the same intrinsic value. Since her love of her unborn child made her assign more intrinsic value to her child than to herself, arguably her love was irrational.

Sometimes we sacrifice our lives or put ourselves in great danger to save the lives of strangers. In August 2009, Homer T. Roberts Jr. saved the life of a twelve-year-old boy Tony Dunbar from drowning in an outgoing current in the channel on the southernmost tip of Tybee Island, Georgia. When Homer saw the paralyzing fear in the boy's eyes, he shouted, "This little boy isn't going to drown today," and jumped in to rescue the boy. He kept calming the kid, desperately repeating "Don't give up, don't give up" and finally succeeded in pushing him away from the current. The boy's stepfather snatched the kid to safety. Homer then began his own uphill struggle in the deadly current. But the current was too powerful. He was found dead the next morning. Altruism, or pure love of others, drove this man to sacrifice his own life for the life of a stranger's child. He could not bear to see the child drown.

Wesley Autrey, a Harlem construction worker was waiting for a southbound No. 1 train at the 137th Street/City College station with his two young daughters, when a first-year film student at the New York Film Academy, Cameron Hollopeter, suffered a grand-mal seizure. Wesley and two women tried to help. Wesley used a pen to keep his mouth open and called for a station agent. But before the help arrived Cameron's convulsions propelled him off the platform and onto the tracks. Making a split-second decision Wesley jumped

down to help the teen, knowing it could cost him his life. At first Wesley attempted to pull the boy up from the tracks. But the train was approaching, “so I just chose to dive on top of him and pin him down,” Wesley explained. Wesley pushed Cameron into the gap between the rails and forced him down as the train rumbled just inches above them. After seeing someone on the tracks, the engineer had put the emergency brakes on. A few train cars passed over Wesley and Cameron, but neither of them was injured. Though Wesley survived, he knew that there was a good chance that his act of heroism was going to kill him. He valued the life of another person more than he valued his own.

Sometimes we sacrifice our lives for the sake of people we know are likely going to die regardless of what we do. Abraham Zelmanowitz worked as a computer programmer for Empire Blue Cross and Blue Shield on the twenty-seventh floor of the World Trade Center in New York City. Abraham had worked with his friend, Ed Beyea, a quadriplegic, for twelve years. Ed became paralyzed from the neck down in a diving accident when he was twenty-two. As the elevators had stopped working after the terrorist attack on September 11, 2001, Ed had no way of escaping from the tower. Abraham could have walked down the stairs to the street level in a few minutes. But he chose to stay with his friend and comfort him until the bitter end. He sacrificed his life for his friend, who was afraid of the smoke. Abraham was a truly altruistic person. “Had it been a casual acquaintance,” his brother told the *New York Times*, “he would have done the same thing. He could never turn his back on another human being.”

We render people who sacrifice their lives for the sake of others heroes. We celebrate “supererogatory” acts, acts that go above and beyond our call of duty. Supererogatory acts are often grounded in irrational feelings. Giving all of your money to charity is a supererogatory

act but the act is grounded in altruism that has gone overboard. Yet, if I heard of someone who gave all his money to starving children, I would still admire him. When I hear of Abraham waiting with his friend for death to arrive, unstinting in his selflessness, I admire him. But why do we find supererogatory acts so admirable? On the face of it, isn't it irrational to have stronger positive feelings for another person than for oneself?

One possible explanation is that we feel most people are too self-indulgent. So when someone acts more selflessly than she should, we admire her effort, because it shows that her character is still better than most folks', even though it isn't perfect (and we don't know what the right amount of selflessness is). Analogously, we admire people who are a bit reckless despite the fact that their recklessness is associated with irrational emotions, because most people tend to be timid.

Another possible explanation is that we fetishize a hero's disproportionate selflessness, because generally speaking we have a high regard for selflessness and loathe recklessness. Sometimes we are moved less by the particulars of a person's character than by our general views of how we think people should be.

The Transcendent View of Love

Some people believe that love cannot subsist without a certain amount of altruism, or "other-love." This view is encapsulated in received wisdom in the form of sayings and famous quotes like "The degree of loving is measured by the degree of giving," "Love only grows by sharing," "Love is when the other person's happiness is more important than your own." Harry Frankfurt, in his book *On Bullshit*, concurs. He says that love involves "a concern for the

well-being or flourishing of the beloved object that is more or less disinterested and that is also more or less constrained.” However, love cannot be understood in terms of an aim. You can love someone yet not want to be with him or her. You can love a cranky grandfather and yet not mind it if he were to win a ticket to the moon. Nor does love entail an urge to give or do the other good. You can love a dear friend without having the urge to give to her unless she asks for a favor or has special needs. Philosopher Velleman explains:

There are occasions for pleasing and impressing the people one loves, just as there are occasions for caring and sharing. But someone whose love was a bundle of these urges, to care and share and please and impress—such a lover would be an interfering, ingratiating nightmare. (“Love as a Moral Emotion,” p. 353)

Velleman himself thinks that everyone is equally lovable, regardless of their personality or likeability. This idea is encapsulated in the Christian notion that you ought to love everyone, even your enemies. Luke 6:35, for example, states: “But love your enemies, and do good, and lend, expecting nothing in return; and your reward will be great, and you will be sons of the Most High; for He Himself is kind to ungrateful and evil men.” Call this view of love the transcendent view. It is essential to the transcendent view that love rise above the superficial—the meaningless trivialities of shallow appearance. Love is an awareness of value in the other—a state of singling out a fellow human being’s unique value. We do not love others because of their distinctive personality traits or physical attributes. We do not love them because they are good listeners, have a good sense of humor or can do Gangnam style dance moves. We love them because we are in a position to appreciate their worth as individuals.

But why do we love some people and not others, if we ought to love everyone equally? Why don't we love the filthy bum on the street as much as our better half? Well, not to earn cool-points. Velleman suggests that it's because some people have a persona or a relation to us that helps us see their intrinsic value. A persona is made up of our manifest (or obvious) properties: our manifest personality traits and physical attributes. A persona is a kind of mask or costume we wear that can make us look like we are not all equally valuable as people. If your hair is chartreuse or you leave your Christmas lights up and lit until September, then this is part of your persona, but it is not part of you. We don't love people for their superficial attributes. Your chartreuse hair, upper-middle-class privileges, your Cadillac Escalade and your cocky-funny attitude are not essential to my love for you; they merely help me recognize your intrinsic value as a person. They open the door to your valuable inner core.

This leaves an element of luck in whom we come to love. The people who happen to cross our paths, those who succeed in catching our attention, and those we happen to be related to us by blood have a greater chance of being singled out for their unique value as people we love. If Zoe had not bumped into Brandon in a bourgeois neighborhood of Manhattan frequented by lit-crit types, she would never have fallen crazy, stupidly, incurably in love with him, their lives would never have become fatally entwined. The people who happen to cross our paths have a greater chance of receiving our love if their personality traits and physical attributes make us appreciate their intrinsic value.

Parents often make big sacrifices for their children that they wouldn't make for others, despite the equal worth of others. In 1908, a mother saved her child's life by donating large patches of her skin to her child. The child had been burned badly in a fire. The

mother most likely wouldn't have made a similar donation to other burn victims. Her commendable deed is a testament to her unique love of her child. On the transcendent view, had the noble lady realized that other burn victims too have intrinsic value, she would have loved them to the same extent and would have been willing to make the same laudable sacrifice.

Despite its beauty, the transcendent view of love is not flawless. If love *is* indeed the appraisal of another person's core value, if it's an appreciation of the beloved's inner value, the bodily aspect of love is marginalized. But the disposition to have certain bodily feelings is no doubt central to love: a throbbing heart, pulsating arteries, sweat stinging your eyes. Compassionate love may not elicit the same enrapturing feelings as rousing romantic love. But it is nonetheless hard to see how a mere appraisal of the value of another person could *be* love as opposed to some other emotion—for example, respect.

The transcendent view also fails to distinguish between people who are worthy of love and people who aren't. Everyone is equally deserving of love, tenderness, and appreciation. A merciless monster who knocks his wife unconscious each and every day and eventually stabs her to death is as worthy of love as the baby in your cradle. Because everyone is equally lovable, the transcendent view rules out that love could ever be unjustified, or irrational. Whoever you fall in love with fits the bill. They all have the inner human core that is worthy of favorable appraisal.

But other emotions, such as fear and anger, can be unjustified or irrational. Your anger at me because I won the state lottery is irrational. So is my fear of innocuous daddy longlegs spiders. What makes love different from fear and anger? It isn't too far-fetched to think that fear and anger also involve an appraisal of an object. For example, fear involves an appraisal of the feared object as dangerous.

This is built into the perception of the object: the object of the fear is perceived as dangerous. Perceiving an object as dangerous is arguably what it means to say that a state of fear is directed toward an object. But if love is akin to fear and anger in this respect, then it too can be irrational, or unjustified.

Another problem with the transcendental view is that it makes your beloved replaceable by anyone. That would make love very simple. A compulsive consumer's pipedream. A seemingly hellish breakup would not be bad at all, as a serial killer, the girl next door, or her smelly aunt would be as worthy of love as the person you lost. If you like the transcendent view, you are probably best off not telling your spouse, "Always remember you're unique, just like everyone else."

The upshot is that we must reject the transcendent account of love as valuing the inner core of our fellow human beings because this view doesn't acknowledge that people could ever be unlovable.

Love as a History

One natural view that many people hold is that the individuals we love are irreplaceable. The idea behind this piece of common wisdom is that if love can be affection for a person for the way she walks or the way she talks, she is in principle replaceable. If you love her, you should love her twin to the same extent. But, as a matter of fact, you don't. Greek shipping heir Stavros Niarchos III loved Mary-Kate Olsen but not her nearly indistinguishable twin sister Ashley Olsen. Our loved ones are not replaceable.

But what is it about our loved ones that makes them seem irreplaceable? A common view is that justified love required a pre-existing history. Philosopher Niko Kolodny holds this view. Because our



According to Kolodny, our loved ones are not replaceable. Even though Mary-Kate and Ashley Olsen are virtually indistinguishable, you do not automatically love both of them by loving one. © Gareth Southwell.

dearests are one-off, he says, we love them for a good reason only when we share a history of experiences with them, for example, a history as lovers, friends, man and wife, or parent and child.

The history view has the advantage over the transcendent view that it renders many naturally appropriate cases of love rational and many intuitively senseless cases irrational. It can explain why unrequited love often is irrational and why you love your verbosely opinionated spouse more than your neighbor's majestic daughter.

But the history view has other glitches. Kolodny shrewdly acknowledges that love can be improper even when there is a shared history.

A history of slavery or relentless rape does not warrant love. For love to be warranted there has to be a good history. There has to be more good times than bad. A husband scolding his wife every few days for not cleaning the house properly creates a history, yet that history does not justify the wife's affectionate feelings.

The claim that there has to be a good history for love to be appropriate, however, does not seem quite right. What disqualifies the love in ugly cases, like incest and statutory rape, is not the history being bad but the lack of fit between the love and the beloved's personality traits and psychological states. Suppose your long-term companion is secretly murdering and raping prepubescent girls and burying them in your front yard. Such a person is not worthy of anyone's love. Yet the history *you* have had with him may have been a good one. Or suppose you have a good relationship with someone you love dearly but who doesn't love you. Even though the relationship has been good, the love is inappropriate, because it is not reciprocal. Or suppose that you have known a person in your class for the last ten years. Then you fall in love and embark on a romantic relationship. You do not yet have a romantic relationship that can justify your romantic love for that person. Your being classmates doesn't count as a relationship. Yet it certainly seems that your love can be appropriate in this case. When there is a relationship, it can help us discover whether a person is worthy of our love, but a relationship is not what makes love appropriate or inappropriate.

There is also a problem with the commonly accepted view that our loved ones must be irreplaceable for love to be warranted. Granted, we do wince at the thought of having our loved ones replaced by someone else. In 1997, con artist Frédéric Bourdin impersonated an American schoolboy who had been missing for three years. Bourdin was so good at it that he convinced the boy's family he was their son. He moved into the missing boy's old bedroom and attended school. He fooled

everyone for three and a half months until a detective eventually called his bluff. Not unsurprisingly, the parents did not like the fact that an imposter had taken the place of their son.

Philosopher Robert Kraut has suggested that our opinions about what makes a person continue to be the same person can influence our views about whether loved ones are replaceable. This hypothesis was tested by researchers at Clemson University in a survey of 162 volunteers. The participants were first asked questions related to the view that we identify people, not by their immediately observable qualities, but by their essence, or inner core. They were then asked about their views on the irreplaceability of their beloved as well as their acquaintances, pets, and shoes. They also tested whether it would make a difference if the shoes were a gift from a friend. The participants were generally opposed to having their loved ones replaced, including their pets, whereas they cared less about acquaintances and shoes. The participants who had more rigid criteria of personal identity were more likely to regard loved ones as irreplaceable. The researchers also found a correlation between how sentimental people are and how willing they are to settle for a replica of their beloved.

So, yes, there is a peculiar tendency to regard loved ones as irreplaceable. But citing the fact that we would be dismayed if a duplicate were put in the place of our loved ones doesn't explain why love that makes them replaceable cannot be appropriate.

We should distinguish here between justifying reasons and explanatory (or causal) reasons. If you kill a person because you are angry, your anger is an explanatory reason for your action but it doesn't justify your action. If, on the other hand, you kill someone to save your own life, then your reason may justify your action.

If you love a person because she knows that money is made out of linen and not paper or because she consumes 500 extra calories a day

by licking stamps, these reasons are explanatory reasons. They may explain why you love the person but they do not by themselves justify your love. A single quality—for example, flaming red hair—may be a causal or explanatory basis for love, but it is never a sufficient justificatory basis. It is not required that a person has any particular set of qualities in order for your love of that person to be justified. For there to be a justifying reason for your love, there must be (among other things) a good fit between the person's qualities and the loving feeling. Many different sets of qualities can guarantee this type of fit. The set of qualities that I have and the set of qualities that you have may very well make both of us worthy of love.

The love-for-a-reason view, when so construed, is not as fatuous as it may at first seem. The view, however, is also sometimes said to be unintuitive because it construes love as a psychological state like belief. It is said that belief is sensitive to evidence, whereas love is not. Suppose you see water drizzling down outside the window. You come to believe that it is raining. But your friend then tells you that the water pouring down originates in a new watering system installed in the greenhouse on the rooftop. If your friend is trustworthy, then you ought to stop believing that it's raining. But it seems that you are not obliged to stop loving your CutiePootie when you learn that his natural hair color isn't blond. And this is so even if you are so vain that your adoration is sustained by his appearing to have naturally blond hair.

Belief and love, however, are more akin to each other than it may at first seem. In our example involving belief your reason is undercut by your truthful friend's testimony. So, the rational thing to do is to revise your belief. In our example involving love, your SweetiePie—who is now correctly perceived—may well elicit a new loving response in you even if he doesn't have naturally blond hair (your got over your vanity). So, your continued love for him, which is no

longer a response to a distortion of reality, is justified. You correctly revised your psychological state in both cases.

Personal Identity and the Value of Our Beloveds

But how do we explain the fact that most of us would not want our beloved replaced by another person who has all the qualities we like but lacks the ones we loathe? The answer is nearly trivial: because we value the original but not the replacement. It would be a relief if your beau didn't have stinky feet, but having to live with an imposter without stinky feet is much worse than having to live with him and his stinky tootsies. The value we attribute to our loved ones is similar to the value we assign to the vase that belonged to our dear granny or the dress that was once worn by Princess Diana. It's a kind of value that a thing has for its own sake by virtue of standing in a relation to something external to it. Some of us might cherish our loved ones because of the history we share with them. But the value we bestow on our loved ones should not be mistaken for love. If it were an essential component of love, then those who don't value their beloved in this way would be incapable of loving, which would be absurd.

This raises the question of what constitutes the same person. Certainly the imposter is not the same person as the original. But is that because the new one doesn't have the same essence as the original or because the imposter is not an appropriate temporal continuation of your loved one? To answer that question we will need to look closer at the big question of personal identity. Some think that a person's identity through time consists in some biological relation, such as the persistence of the brainstem from one moment to the next. If your beloved is in a persistent vegetative state but has some brainstem function, then she is still the same person. Others believe that what matters for personal

identity is a continuation of the psychological features of a person, her attitudes, personality traits, memories, and so on.

The psychological criterion is, in my opinion, far more plausible than the biological one. Suppose you were required to make a choice between saving your beloved's brainstem without any guarantee that the psychological features would remain the same or saving your beloved's psychological features without any promise that the brainstem would stay the same. This is hardly a moral dilemma. Anyone of a sane mind would want to preserve the psychological features, because it is ultimately those that matter.

Another case that may be taken to support the psychological criterion is that of split-brain syndrome. Split-brain syndrome is a consequence of split-brain surgery, or corpus callosotomy. This is a drastic way of alleviating epileptic seizures, the occurrence of sporadic electrical storms in the brain. The procedure involves severing the corpus callosum, the main bond between the brain's left and right hemispheres. After a split-brain surgery the two hemispheres do not exchange information as efficiently as before.

Psychologists Michael Gazzaniga and Roger W. Sperry, the first to study split brains in humans, found that several patients who had undergone a complete callosotomy suffered from split-brain syndrome. In patients with this condition the right hemisphere, which controls the left hand and foot, acts independently of the left hemisphere and the person's ability to make rational decisions. This can give rise to a kind of split personality, in which the left hemisphere gives orders that reflect the person's rational goals, whereas the right hemisphere issues conflicting demands that reveal hidden desires.

Gazzaniga and Sperry's split-brain research is now legendary. One of their child participants, Paul S, had a fully functional language center in both hemispheres. This allowed the researchers to question each side of the brain. When they asked the right side what

their patient wanted to be when he grew up, he replied “an automobile racer.” When they posed the same question to the left, however, he responded “a draftsman.” Another quirky patient pulled down his pants with the left hand and back up with the right in a continuing struggle. On a different occasion, this same patient’s left hand made an attempt to strike the unsuspecting wife as the right hand grabbed the villainous limb to stop it.

Split-brain syndrome presents a difficulty for the biological criterion, as there is only one physical body and only one brain stem. Yet some split-brain patients seem to embody two people with distinct attitudes, personalities, and memories. Unlike the biological criterion, the psychological criterion allows for this possibility.

The biological criterion also has difficulties explaining the connection between personal identity and other kinds of identity, such as gender identity. Gender identity is not a function of the features of the physical body. As Sharan Suresh, a trans* woman advocating for transgender rights in Malaysia, puts it, “gender is not based on anatomical sex (what’s between your legs)” but what’s in your mind.

The psychological criterion is not without its problems. The philosopher Derek Parfit imagines a case of brain fission. One person’s brain is divided into two identical halves and implanted into new bodies. After the operation each of the two human beings has the same psychological features. Who is the original person? Would you love one more than the other?

There is no answer to these questions. This is because the thought experiment is designed to be symmetrical. The new creatures that came into existence after the transplant are all equally good continuations of the original person. The problem for the psychological account is that the two newfangled people cannot both be identical to the original person. That’s not how identity works. Two people cannot be identical to one person. You cannot be identical to both you and

your sister. One response to this problem is to insist that people can remain the same over time, even when strict identity does not obtain.

If the psychological criterion is correct, then there are many cases of people who become different persons over time. All it takes is a sufficiently cruel brain lesion or disease. People with advanced Alzheimer's disease, for example, often experience changes in personality. Aggression is fairly common in advanced stages of the disease. A person who was introverted, agreeable, and polite may suddenly be cursing, hitting, kicking, pushing, throwing, scratching, biting, screaming, and yelling. Patients with advanced Alzheimer's furthermore lack the memories that used to ensure inner mental coherence. Given all of these psychological changes, patients with advanced Alzheimer's are not identical to the people they were prior to the disease.

But this raises prickly issues. Most of us wouldn't value an imposter who took the place of our beloved but if the beloved's personality were drastically altered across time to the extent that she is no longer the same person, many of us would nonetheless feel some internal pressure in terms of continuing to value her. If the psychological criterion of identity is correct, then this asymmetry in our feelings about who we ought to value is irrational. We don't share a history with the person who now exists; we share a history with a different person, the person who ceased to be when the psychological features drastically changed. So if we don't feel an internal pressure to value the imposter, neither should we feel an internal pressure to value the new person occupying the body of our beloved.

Is Love Unconditional?

If you love a person romantically because of the way she walks or the way she talks, it may seem that romantic love is always conditional.

After all, your beloved might lose the attributes that made you love her in the first place. Romantic love then would seem very different from other forms of love. You don't stop loving your kid when the dimples in his cheeks fade away and he starts to smell like teen spirit.

A common belief, though, is that your beloved will stand by your side in sickness and in health. Popular movies like *The Notebook* portray heroic old people who continue to love their spouses, in spite of enormous hardship. They love them in spite of the fact that an important part of the beloved's brain has become beset with plaques and tangles, in spite of the fact that the beloved thinks the spouse is the pool guy, in spite of the fact that they are incessantly ransacking the fridge for something edible because they don't remember that they just ate a three-course dinner. But we don't need movies to teach us about eternal love. We learned it at the first wedding ceremony we attended as little munchkins. "I, Rose, take you, Tiger, for my lawful husband, to have and to hold, from this day forward, for better, for worse, for richer, for poorer, in sickness and in health, until death do us part." This is the love we cherish, indelible love, the love that outlasts permanent changes in personality and bodily function. And there is indeed something sickening and calculated about certain kinds of conditional love. If you stop loving your spouse because he loses his hair, gains five pounds, and develops crows' feet beside his eyes, you are vain.

But you can be vain without loving only conditionally. If something is conditional, it comes along with a condition. If you were to tell your beloved "I will love you for as long as you have all your hair, your ripped abs, and your smooth baby bottom skin," your love would be conditional. You have promised to love for as long as the condition obtains and no longer. When the ripped abs turn into a beer belly, your affection for him becomes a figment of *his* imagination. But you are probably not *that* vain. You are not putting a

phony condition on your love. You love your beau without a condition and hence (in some sense) unconditionally.

To love unconditionally is not the same as loving your companion no matter what. If you love unconditionally, you are not specifying, and could not specify, up front under what conditions your adoration will pass. But there may nonetheless still be circumstances that could put an end to it. If your sweetheart starts beating you with a stick, your affection for him might quickly come to a close.

Quite naturally, you may have become accustomed to equating “to love no matter what” with “to love unconditionally.” If, however, “love” here is meant to refer to romantic love, then I profess that I know few instances of the former. Spouses stay together in sickness and in health but staying together doesn’t entail loving one another romantically. Afraid of entering the love-starved singles market, couples stay together long after their infatuation has faded, which doesn’t take much more than a year’s time. As author and humorist Fran Lebowitz is quoted as saying in Tom Steele’s *The Book of Classic Insults*, “if you can stay in love for more than a year, you’re on something.”

Compassionate love is more likely to survive obstacles than its romantic counterpart. Few parents stop loving their child even in the grimmest of circumstances. Their love persists even when the misanthropic monster is found guilty of three counts of first-degree murder. They love their child for the reason that he is their child, their bloodline, their creation. The explanation for this unbending steel bond may be biological, or it may be cultivated by our family-obsessed society. But the fact that parental love in many circumstances can survive almost anything doesn’t make all instances of this type of love rational. There can be circumstances in which loving one’s child is no longer justified. For example, in a *New Yorker* interview the father of Adam Lanza, the Newtown, Connecticut, school shooter, says that he wishes his son had never been born.

5

WHY WAS I HOLDING ONTO SOMETHING THAT WOULD NEVER BE MINE?

RELATIONSHIPS AND LOVE ATTACHMENT

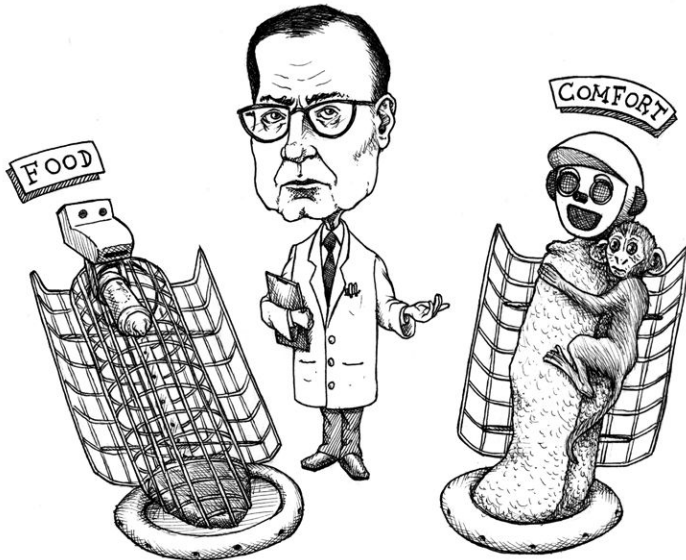
How our love is manifested is a function of our attachment style and our personality. British psychiatrist and psychoanalyst John Bowlby, the founding father of attachment theory, described attachment as an emotional bond that impacts behavior “from the cradle to the grave.” How you bond with caregivers during early childhood affects how you behave in relationships, how in touch you are with your emotions, and how much you will allow yourself to love others on a conscious level.

If you have a secure attachment style, you maintain a healthy proximity to other people. You are not afraid of closeness and intimacy and you don't depend on it in a pathological way. If you have an insecure attachment style, on the other hand, you avoid closeness with others or your whole existence depends on it. Or you are somewhere in between on the insecure spectrum, being somewhat avoidant or somewhat anxious.

Secure versus Insecure Attachment

Attachment theory begins with the observation that in a healthy environment a bonding process occurs between a child and her caregiver

during the first five to six years of the child's life. The caregiver is in a position to recognize and satisfy the child's emotional needs. As American psychologist Harry Harlow's experiments in the 1950s demonstrated, an emotional connection with a caregiver is necessary for the child to learn that her world is a safe place that she can explore. Harlow tested whether young rhesus monkeys would choose a surrogate mother made of soft terrycloth but who provided no food, or one made of wire but who delivered food from an attached baby bottle. He found that the baby monkeys spent significantly more time with



Harry Harlow (1905–1981) conducted a study to examine whether baby monkeys would prefer a food-dispenser mother or a soft cloth mother. This is the way the baby monkeys would react toward their cloth mother when they were afraid. © Gareth Southwell.

their cloth mother than with their wire mother. The baby monkeys would turn to their cloth mother for comfort and security and would use the cloth mother as a secure base to explore the room.

When adequate attachment between child and caregiver is lacking, the child grows up with an impaired ability to trust the world as a safe place and to believe that others will take good care of her. Childhood abandonment, unpredictable parental behavior, unrealistic parent expectations, and physical, verbal, or emotional abuse teach the child that her environment is not a safe place and that the people she encounters cannot be trusted.

Children who are abandoned, neglected, or mistreated will inevitably experiment with different ways of coping with the psychic wounds and lack of security. Whatever is most effective influences what sort of attachment style they develop. One youngster may restore some kind of equilibrium by continually seeking the caregiver's attention and approval. If, however, the initial attempts to restore equilibrium don't work, the child will eventually disengage from the external world and retreat into her own mind. She learns that keeping her thoughts and feelings to herself leads to the least amount of anguish and pain.

Attachment patterns, however, develop long before the child has any way of coping. Psychologist Mary Ainsworth, who worked with Bowlby, completed the first study of attachment in infancy in Uganda from 1953 to 1955. The study looked at twenty-eight unweaned babies from twenty-three families in six local villages. It was customary to separate children from their mothers when they were weaned and leave the child with the grandmother. This custom allowed for an easy way of assessing how the youngsters would behave when separated from their mother. She found that babies of mothers who were sensitive to their youngsters' needs developed secure attachment patterns, whereas babies of mothers who were imperceptive, distant, or unpredictable developed insecure attachment patterns. Five

of the twenty-eight children seemed to have failed to develop an attachment to their mother, and this correlated with a largely unresponsive and unavailable parenting style. Seven babies were attached in an insecure way and had great difficulties being separated from their mother, probably as a consequence of the mother's unpredictability and her own security issues.

Ainsworth later confirmed her early experimental results in an experimental paradigm that has come to be known as "the strange situation." In the strange situation the child is observed playing for twenty minutes, during which caregivers and strangers enter or leave the room. At first the parent and the child are alone and the child is allowed to explore her surroundings while the parent watches. A stranger then enters the room and has a brief conversation with the parent, the parent then leaves the room, and the stranger engages the child. Later the caregiver reappears, greets the child, and then departs again. The child is then left alone and a stranger enters and engages the youngster. Finally, the parent reenters, greets the child, and the stranger leaves. While this is going on the researchers observe how much the child is willing to explore, the child's reactions when the parent leaves, how anxious the stranger makes the child, and how the child reacts when she is reunited with the parent. In this experimental setting, securely attached children will explore when the parent is present, be upset when the parent leaves, and be happy when he returns. Insecurely attached children will either cling to the parent, even before he leaves the room, or completely ignore him.

Bowlby argued that the early attachment processes lead to a particular mental model of relationships that continues to shape the child's interactions with other people as the child matures. The mental model is an implicit belief system about child-caregiver interactions that to some extent predicts how the child will interact with future caregivers and romantic partners.

Childish Relationships

Although adult attachment patterns are different in certain respects from early childhood attachment patterns, it is well documented that romantic partners interact in ways that mirror the interaction between a child and her caregiver. Studies have shown that when two people in a relationship part ways, people with different attachment styles behave differently during the time leading up to the separation. Psychologists R. Chris Fraley and Phillip Hazan studied the attachment patterns of couples in airports who were separating temporarily. Conducting the study several years prior to 9/11 (before stringent airport security closed access to gates for anyone but ticketed passengers), they observed the couples' behavior at the gate and had them fill out a questionnaire about their attachment style afterward. They found that anxiously attached people are more likely to start crying, cling to their partner, or try to prevent the partner from leaving than people who attached in a healthy way or who avoided attachment. In one case, a man came running out of the plane for a final kiss after the plane had already boarded. The flight attendants were furious.

The avoidant people the researchers observed showed significantly less attachment behavior. They were more likely to withdraw from their partner, avoid eye contact, and shun intimacy. They would make the moment of separation quick and painless by simply turning around and walking away after a smooch on the cheek and a swift "take care and travel safely."

Interestingly, the attachment responses were minimized when the couples were traveling together and therefore were not separating. In those situations, the avoidant and anxious behaviors were hardly discernible. This shows that attachment behavior is partly fueled by an impending threat to the relationship, the possibility of abandonment and betrayal. Fraley and Shaver also found that attachment behavior became less pronounced as the length of the relationship increased,

which may reflect that insecure partners feel less vulnerable in a long-term relationship.

While interactions between two people in a romantic relationship can mirror the interactions between a child and a caregiver, there are also important differences between child and adult attachment, at least in normal cases. First, in healthy romantic relationships, people take turns being the caregiver and the recipient of care. Each partner becomes an attachment figure for the other. Folks in unhealthy relationships might assume inappropriate roles as parent and child. For example, a woman may take on the role of the scolding, controlling, and demanding parent, and her male partner may assume the role of the immature and defiant child.

Second, in adults the need for bodily contact and physical interaction becomes partially replaced by a need for emotional security. We value psychological bonding as much as, or more than, physical contact. We don't need to be held by our significant other whenever we feel sad or anxious. While we still need physical contact, it's no longer enough. We want and need affirmation of a nonphysical kind.

Third, adult attachment styles are manifested cognitively, for example, in the way people think about romantic relationships. Securely attached individuals associate relationships with happiness, trust, support, and friendship. Individuals who avoid attachment think about relationships as demanding, inconsistent, and unlikely to be based on love. And overly, or anxiously, attached individuals take relationships to be essential to happiness but unrealistic and unlikely to last.

Avoidant Attachment

The two main types of adult insecure attachment style, the anxious and the avoidant, differ in a number of ways. The avoidant attachment

style is a kind of deactivation of the attachment system. People with an avoidant attachment style tend to shun close romantic relationships and intimate friendships. They have difficulties with intimacy and closeness and are more likely to engage in casual sex than to have sex in a monogamous relationship. They have difficulties trusting others and cannot share their feelings with friends or partners because most of their emotions aren't felt.

People with a full-fledged avoidant attachment style do not seek to change the past and do not genuinely hope that they someday can create a secure relationship with another person who genuinely cares about them. Their childhood or continued journey through life has convinced them that healthy intimate relationships and friendships do not exist. As they cannot invest their emotions in intimate liaisons, they do not experience distress when a relationship or friendship comes to a close. They often avoid intimacy by making puerile excuses: "The judge changed my kid's visitation schedule," "I have to stay with my dying aunt in the hospital," "I have to alphabetize my CDs." They are compulsively self-reliant and hypersensitive to criticism but are at the same time highly critical of others. They tend to be overachievers and feel secure only if they are totally self-reliant and in control of everything that happens. They will let only those people whom they can completely control and of whom they can be exceedingly demanding come near them emotionally. They also have a tendency toward avoidant depression and anxiety.

Avoidant people who have repressed their emotions to cope with a traumatic event or an insecure childhood report that they experience less negative emotions. Nonetheless, they show greater negative physiological responses. When asked to carry out a mildly stressful task, they show more signs of anxiety than secure folks. They have high levels of stress hormones and greater activation in the amygdala. They have difficulties feeling the negative responses in their body. They

tend not to cope with past traumatic events by allowing themselves to consciously feel their negative emotions and have learned to inhibit their negative emotional responses. This process becomes automatic over time. It becomes second nature, consisting purely in processes residing below conscious awareness. The increased physical levels of stress usually lead to severe health problems and premature death.

Anxious Attachment

Brandon is an exemplar of someone with an avoidant attachment style. His wobbly and undefined connection with Zoe over three years was the longest romantic relationship he had ever had. Zoe, on the other hand, probably has an anxious attachment style (co-dependence). Though both the avoidant and the anxious attachment styles are forms of insecure attachment, their symptoms are poles apart. The anxious attachment style can be seen as a hyperactivation of the attachment system. It is manifested in continuous attempts to make the lover fit certain anticipated goals.

People with a full-fledged anxious attachment style are compulsive caregivers and overinvest themselves emotionally. They are the types of people who just might tell their new crush that they have bought him or her a Christmas present, even though it's only September. They expect their emotional investment to be returned in the form of praise and affection. It is as if they haven't realized that it's more impressive when others discover their good qualities without their help. They tend to idealize others and idealize relationships and friendships. They have an uncontrollable desire for partners or friends to reciprocate. They desire extensive contact and declarations of affection and praise and are preoccupied with and depend on the relationship or friendship. The relationship or friendship is the primary

means by which they can experience a sense of security and a sense of self. Whereas avoidant individuals think of sex as a kind of control or as a proof of their attractiveness or status, anxious individuals regard sex as evidence of the sex partner's commitment to them.

Anxious individuals tend to become overachievers because they implicitly believe that this will provide them with attention and affection. They perceive others as difficult to understand, as inscrutable and unpredictable. They tend to be hyper-sensitive to criticism and rejection. They respond with fear to anger in others. They experience exceptionally intense emotions, such as grave—or even morbid—jealousy. When teen actress Rebecca Shaeffer obtained a small role in the movie, *Scenes from the Class Struggle in Beverly Hills*, in which there was a scene where she was lying in bed with a male character, her anxiously attached stalker fan, Robert John Bardo, became so outraged that he tracked down her address with the help of a private detective, showed up at her home and shot her in the chest.

Beneath their conscious thoughts and emotions, people with an anxious attachment style ache and yearn for parental love or the love of a protector who can play a parental role. In early life they believed their parents would always be their solid foundation and a persistent source of validation. Their first heartache occurred with the first rejection, putdown, belittling, or blistering criticism. For all of their life they have continued to search for parental validation. Still yearning to recapture the past, they continue to search for the perfect parent in their friendships and intimate relationships, the perfect parent who can give them the approval and affirmation that their real parents or their previous friends or lovers were unable to provide.

Because individuals with an anxious attachment style are able to feel their negative emotional responses, they typically have lower levels of stress hormones and are not at as great risk of life-threatening

complications as avoidant people. They are also more likely to seek professional treatment for their condition.

The subtle differences between Zoe and Brandon's attachment styles materialize in this letter which Zoe sent me when she first started going out with Brandon:

I am not sure where to start or end. We met at an Italian restaurant Brandon knew close to his place. It was amazing to see him! He looked stunning in his deep blue fitted shirt. He apparently knew the owner, because he came running over as soon as we had sat down. He knows everyone, it seems. The owner brought us a bottle of Amarone on the house. He talked to Brandon for a while and then we ordered.

Brandon kept looking directly at me while we sipped the wine. He seemed so into me, constantly told me how cute I was and said that a couple of hipsters at the bar couldn't get their eyes off of me, "But that's to be expected when you are so beautiful," he said with a mischievous smile. Then the food came. We talked about everything while we ate. Why I moved away from home when I was still in high school, the time when he lived in Berlin, how he felt when his mom left when he was seven, whether we believed in God, how the universe could possibly have a beginning and an end. We stayed a while after dinner, talked flirted, laughed. It was wonderful!!

On the way back to his place we went to a Wiccan in the East Village rumored to have voodoo doll abilities (my idea, of course). She took us to a dim room in the back, where she had the tarot cards. After the first few drawings she told me that I was in a state of reflection and that my new outlook on reality was uncovering my authentic self. Later she said that I had a serious decision to make ahead of me. I was allowed one question. I didn't

have to say it out loud. So I thought to myself: “Am I going to continue to see Brandon?” I immediately regretted thinking it. I didn’t want to hear the answer. The Wiccan drew a card but she said that it suggested both “yes” and “no,” and she thought that was peculiar, as she had never seen it before. She asked for my earring and held it in her hand for a while, looking like she was in a weirdly gripping trance, her head tilted forward, her hazel eyes shut, her long black hair covering most of her pale feline face. It occurred to me that she looked like Snow White—or maybe a hypnotically beautiful female assassin. She then wrote something in mystic, portentous symbols. In the end the answer was a slight “no.” It made me sad, for even though she obviously cannot really predict the future, it still felt as if she had taken something away from me. Brandon was told that he would finally get something he had wanted at work. I think he really was sitting there thinking about work the whole time. When it was his turn to ask a question he asked if he would get the promotion he wanted. The answer was a slight “yes” but the Wiccan said that he had to watch out because someone he knew was attempting to thwart his goals. He nodded seriously, as if he really believed her.

Then we went to his apartment, a scarcely furnished but glamorous loft. He put on some soft music, Ella Fitzgerald I think, made us a mojito. I almost couldn’t drink anymore. He had ordered a second bottle after we finished the first. We went into the bedroom and undressed each other. It was so intense to just lie there naked and kiss and touch. I asked if I could suck his cock. He said he would like that. He got really hard. Then he took me from behind. It felt good when he said that he came. I licked him clean afterwards. Then we were just lying on the bed together. To my surprise he suddenly seemed a bit shy, pulled up

the covers when I really wanted them off. He said he was thinking a lot about how nice it was to be naked with me. I said that I thought it was nice too but I thought to myself that it was as if he always was one-hundred percent in control of everything he did, as if he couldn't let go, even the moment he came. Then we fell asleep.

It is not hard to explain why disaster is bound to happen when a person with an anxious attachment style hooks up with a person who is avoidant. They will inevitably bring out the worst in each other. At times when there is no apparent conflict, the avoidant person will be preoccupied with activities outside the relationship, whereas the anxious person will be preoccupied with the availability of her partner. Eventually the avoidant fellow feels suffocated and claustrophobic and withdraws temporarily from the relationship to savor some needed alone time. The anxiously attached person will perceive this as a threat to their bond, which will bring out destructive behaviors: questions about whereabouts, incessant calling and texting, hiding outside the avoidant person's apartment hoping to catch a fleeting glimpse of him or her, and prowling around listening to the whooshing sound of work deadlines flying by. These attachment behaviors will cause the avoidant individual to withdraw even further. The couple gets stuck in a vicious circle until the relationship breaks into pieces.

Familiar Love

Brandon wasn't Zoe's first love. Before him there was Jack. Jack was married but made it clear to Zoe that for all intents and purposes his marriage was a thing of the past. Sex with his wife was a chore, not a

pleasure. He also told her that although he wasn't blessed with a blissful domestic life, he could not divorce his wife until the kids were grown. When Zoe first met the stodgy guy at a hangout, they saw a lot of each other. He eagerly stopped by her SoHo apartment after work on weekdays. He couldn't stay long, as he didn't want his unsuspecting wife to worry. She expected him home in Jersey before dinnertime. But he stayed long enough for them to do the deed and for him to vow that he loved her. After a few months Jack's drop-ins became increasingly infrequent. "My wife is going through some difficult times," the creepy fella would say before he drove off in his black Mercedes with cream-colored upholstery. His obnoxiously demanding schedule now only allowed for bimonthly visits. There were no longer any melodramatic texts from him at dawn or soppy phone calls at lunchtime. Zoe ended the screwball comedy of a relationship when she met Brandon.

Before Jack there was Alan. Alan was an over-celebrated science writer and hipster author of several pop psych books, raking in the dough. As soon as they met there was no doubt in her mind that he was taken with her. He was swarming around her like a fly around raw meat, always "accidentally" ending up in the seat next to her at meetings and lunches, always finding an excuse for stopping by her desk, always finding a way to charm her. It didn't take long for her to become infatuated. When Alan didn't make any moves to make things progress, Zoe started pursuing him with obstinacy and rigor. He resisted at first with mind-numbing excuses such as "We are working together," "I am too busy at work," or "It will never work," but eventually he surrendered. Well, sort of. He wasn't prepared to make plans with her beforehand, everything was spur-of-the-moment, so she never knew when their secret trysts would take place. She started arriving at work all dolled up and with her toothbrush in her purse, as she never knew when he would nonchalantly stroll by her desk at the

end of a workday and suggest that they “hang out” at his place. She secretly hoped that their causal and undefined liaison would blossom into something more. But it never did. When she started asking too many questions, the hideously noncommittal fellow broke it off.

Why does Zoe keep falling for unattainable, self-absorbed, self-congratulatory philanderers who leave her hanging in a limbo state?—Casanovas sufficiently self-absorbed to think that every woman crossing their path is frantically eager to jump on their dick. Why does she keep repeating the same mindless errors in matters of love? To get a kick out of it? Wrong. Because no available man with a soul of gold is interested? Wrong again. She gets plenty of superficial attention. She is five feet five (about as tall as I am when she sports four-inch heels), leggy, toned, slim, light-brown hair down to her waist, a pretty heart-shaped face, and a butt to die for. She gets attention, all right. But that doesn’t matter; she thoughtlessly plunges into the same errors over and over again.

Zoe’s behavior is foreseeable. Unconscious processes govern who we are drawn to, almost with gravitational force. Even gruesomely abused children and battered wives sometimes form attachments to their abusers and strongly resist separation from them because of familiarity. Zoe’s mental representations of what relationships are and how they function dutifully guide her toward unattainable men. Those mental representations were at least partly formed in her ill-fated childhood. The daughter of a Wall Street tycoon who left them when she was three, she fantasized about her God-like yet compassionate and devoted father. But the fantasies of the two of them strolling side by side in the Jersey woods in wool sweaters and eating ice cream in the humid New York afternoons were just that: fantasies. The only thing she had seen of him since he left was the fat checks that arrived on the first of the month. Her mother was a withdrawn American blue-blooded lady with her own bank account brimful of old money.

A noble American of white America, her face pure, her emotions restrained, her opinions Southern like her dad's. The only emotions the stringent woman displayed openly to Zoe were disappointment and frustration. Although the traditionalist dame occasionally complimented Zoe on her good manners and her academic prowess, first at the private elite junior academy, then at the ivy-armored prep school, the mother's responses to her daughter's behavior were unpredictable. Little Zoe was continually and frantically seeking her self-absorbed mama's affection and approval but rarely got it. Not even big brown eyes thick with tears could penetrate the highborn lady's iron façade. Zoe's interactions with her mother painfully taught her that relationships involve her seeking the approval and affections of a largely unavailable alpha-person. That was the legacy her mother passed on to her daughter. These learned attachment patterns got built into her nervous system, and years later each failed relationship confirmed that the inner relationship blueprints were accurate, that this is how relationships are supposed to function. So, she keeps dating the same person just with a different name.

We seek out familiar love, because our reptilian brain can't handle things that are different from what it already knows. Below the surface of conscious awareness our belief system about relationships whispers in our unconscious ear that this type of love is true and real. The implicit attachment system ensures that our heart is ticking only when a potential partner acts in a familiar way, the way we were repetitiously taught that people in relationships are supposed to act. When we encounter someone who doesn't act that way, someone who would have been a suitable choice for us, we don't feel the adrenaline, and the vicious cycle never gets broken. Our enslavement by our past is exquisitely expressed by Scott Fitzgerald in *The Great Gatsby* after Jay Gatsby's tragic death. "Gatsby believed in the green light, the orgastic future that year by year recedes before us. It eluded

us then, but that's no matter—tomorrow we will run faster, stretch out our arms farther. . . . And then one fine morning—So we beat on, boats against the current, borne back ceaselessly into the past.” These words complete the celebrated classic. The great Gatsby himself thought he could repeat the past, revive his lost relationship with Daisy, the woman who was the reason for his every action. When Gatsby first asserted that he could repeat the past, the main character Nick was skeptical but at the novel's closing Nick realizes that we have no choice but to repeat it. However much we struggle, there is no escaping it. Even optimism—running faster, stretching out our arms farther—will not prevent it from catching up with us.

In *The Symposium* the ancient philosopher Plato characterized our search for familiar love as a kind of deficiency. He cites a myth due to Aristophanes, a comic playwright of ancient Athens, according to which people originally had two faces, four arms, and four legs, but the gods felt threatened by the humans' great strength and pride and decided to split them in half as punishment for their arrogance. From that very moment, humans would forever long for and frantically search for their other halves. Though not intended to capture attachment patterns, Aristophanes' myth is an apt depiction of our pathetic search for partners with the personalities of our parents.

Izzy, a former student of mine, was even worse off than Zoe. She ended up with a man who was an inflated version of an amalgamation of both of her parents. Her father had seriously battered her mom, but hardheaded as her mom was, she didn't put up with it. It happened twice. A black eye, then three broken fingers. Then she divorced him. Izzy was eighteen months old at the time, too young to remember the violence or even her father, only learning about it long after she herself had been a victim of abuse.

When she grew up, all she wanted was for her mother to be pleased with her. But her mom would savage her, merciless in her

vile rebuke. One day Izzy cleaned the house while her mother had gone grocery shopping. She couldn't wait for her mother to return from her grocery run. *She will be so proud of me*, she thought ardently. She was only eight. But when her persnickety if ever so ordinary Midwest mama returned, Izzy was met with contempt. She had put things in the wrong places and the floors were wet. Later she heard her mom weeping in the bathroom. Sad blood gushed from Izzy's mortified heart. But the blood eventually thickened (the candy and stuffed teddy bear her mom bought her the next day undoubtedly helped), and Izzy remembered her calling. She set her clock alarm for five in the morning. She knew her mom woke around seven-thirty. It was Saturday. She meticulously boiled eggs, toasted bread, made freshly brewed coffee. Then she waited for her mom to awaken. *She will be so happy when she sees the table with the flowers from the garden*, she thought. But when her mom finally roused at eight-thirty, she was enraged. Izzy had taken the precious white daffodils from the garden, the boiled eggs were undercooked, and the toast was burned and cold. Although destroyed by her estranged mother's disapproval, Izzy never wavered in her pursuit of her love. But all she received in return were nastier digs.

As a grown woman, Izzy suffered the dark effects of the early alienation, enduring years of atrocious verbal abuse from the mouth of her callous husband, an experienced putdown artist, until she finally had the courage to leave. It all started when she ran into a fifteen-year-old and firmly established guy named Norman at a New Year's Eve party. "You can call me Norman Bates," he said and winked at her when the host introduced them. Norman completely swept her off her feet with his compliments, charisma, and apparent warmth. They were exclusive from day one (Norman's idea), and to Izzy things seemed picture-perfect and sugarcoated. To be sure, there were warning signs early on in the relationship. Norman had a temper, got

aggravated and heated very easily, and made inflammatory remarks, revealing the darker areas of his soul. But since his ill-mannered behavior was sporadic at the time, the lovelorn and still immature young woman (she was only seventeen) somehow managed to overlook it. When Norman proposed to her six months into their liaison on one knee and with an exorbitant diamond ring in his hand, Izzy felt tremendously lucky, seeing herself rescued from lower middle-class, Midwest mediocrity.

But good luck rarely goes unpunished. Once they had tied the knot, the verbal and emotional abuse came on full force. Her foul-mouthed husband would scream and yell at her for no apparent reason. He would foam around his mouth, a demon's gleam in his eye. Drops of saliva would "accidentally" hit her face. He would invade her personal space, stand big and strong in front of her, screaming to the top of his voice. The triggers? Any suggestion she dared to make: "Maybe we should pay the bills tonight, they are overdue" or "There is nothing in the fridge. Should we do take-out for dinner?" While he shouted, she would stand paralyzed and listen submissively, not knowing his next move—or hers—until she learned to promptly leave the room, years later. There was nasty unapologetic name-calling: "bitch," "cunt," "child," "whore"—not what she would have expected from a well-paid industrious computer whiz—albeit a whiz kid working for bosses sadistically fixated on micro-management.

Sarcasm was Norman's natural way of communicating. "You are such a pretty little girl, aren't you?" "You cleaned up this place real good while I was away, didn't you?" "How great of you stopping on your way home to actually get us something to eat!" The sarcasm left her head spinning, she was nerve-shredded and clueless, brittle and traumatized. A scrawny girl held hostage by a devious monster, Izzy was living her worst bone-chilling nightmare.

Then there was the emotional abuse. Generating weird suspense by leaving her in the dark about his plans for the night, staying out until two in the morning without telling her of his whereabouts or when she could expect him home. The abuse didn't cease even after their only child was born. When Izzy was twenty weeks pregnant, the wife-abusing scumbag threatened to leave her. She was petrified and foolishly begged him to stay, promising that she would change, though she had no idea what he expected of her. She didn't know what was wrong with her. She didn't know how she could become a different person. She was already walking on eggshells, a nervy detainee in her own house. Of course, she should have let him go.

The abuse was only rarely physical. He once emptied a two-gallon pot of ice-cold water over her head while she was sitting humiliated on the floor weeping after one of his livid outbursts, with "All You Need Is Love" playing in the background. He would often throw stuff across the room: books, laptops, chairs, dishes, her new sunglasses. One time he slapped her face for contradicting him. Despite being a loyal Christian, he was an avid defender of the Supreme Court decision in *Roe v. Wade*, because his mother nearly died having an illicit abortion when she was seventeen. Izzy was in favor of that decision, too. But she had merely suggested that maybe the parents of minors should be informed of their children's decision. He didn't like that remark. Her cheek was red and raw where he struck her for three days afterward.

After their son was born, Izzy thought every day about leaving. But she was tormented by the thought of her son growing up without a father, or worse, being separated from her son. Outside of their chilling home, the rage-prone Norman was masquerading as the perfect father and husband, his enchanting seamless exterior being a perfect mask for the true evil underneath. He would have no trouble deceiving lawyers and judges with his creepy charm.

Izzy finally saw the merciless gravity of her situation. The life she had been leading couldn't go on. She couldn't bear another sadistic confrontation, another enactment of his ghastly rituals. She packed her bags, picked up the kid, and left.

It took Izzy many years before she understood that she wasn't responsible for her husband's brutal temper and sadistic behavior. It took her that long because it was the kind of behavior that was familiar to her. It was the kind of behavior that fit her inner mental model of relationships. Only once it intensified was she able to see that something was tremendously wrong and that she had to let go.

Jealousy and Anxious Attachment

One of the most intense feelings that arise in the context of anxious attachment is jealousy. Jealousy is a remarkably powerful sentiment. It can drive us to commit suicide and murder.

Herman Tarnower was a cardiologist and author of the bestseller *The Complete Scarsdale Medical Diet*. Being a doctor of the upper echelon in society was of utmost importance to him. He started a medical practice in the Scarsdale area of New York specializing in cardiology and internal medicine. Later he started the first cardiopulmonary laboratory in a quaint small town between Albany and New York City and began a cardiac unit at White Plains Hospital. He was appointed medical director at big name companies, such as the Nestlé Corporation. Despising mediocrity, he dealt primarily with extremely affluent patients. He loved hosting elaborate highbrow dinner parties for his many wealthy friends as well as playing cards, fishing, hunting, and traveling. Throughout his adult life, Herman appears to have been very promiscuous, engaging in casual sex with any willing female who interested him sexually. Unlike most promiscuous men,



Herman Tarnower (1910–1980) became famous for his Scarsdale diet, detailed in his 1979 book *The Complete Scarsdale Diet*. Jean Harris, his lover, killed him in an act of jealousy. Portrait ca. 1950. © Gareth Southwell.

he was not deceitful and did not promise fidelity to anyone he had sex with, nor was he jealous and possessive.

Herman met Jean Harris in 1965 about two years after Jean's divorce. Jean was infatuated with Herman, his self-confidence, his arrogance, and his dominant, take-charge manner. Although she was the highly competent headmistress of the Madeira School for girls in McLean, Virginia, Jean craved a traditionally submissive, even masochistic, role in her private life. Jean and Herman began a fourteen-year-long relationship during which Herman continued to date other women. In 1979 Herman hired a younger, gorgeous woman, Lynne Tryforos, to work as a secretary-receptionist at the Scarsdale Medical Center. Lynne and Herman began a love affair that would last several years.

Both women were morbidly jealous. Jean Harris started being awakened by midnight phone calls. The anonymous caller would tell Jean that she was “old and pathetic” and taunt her with graphic descriptions of Herman's enjoyment of another woman's sexual acumen. At work Jean would frequently get a callback number that turned out to be Lynne's. The two women sometimes would end up

screaming at each other over the phone. Lynne would change her unlisted number no less than five times over the ensuing years. Each time Jean would get the new number as a callback.

One time Lynne took out a tiny advertisement on the front page of the New York Times saying, "Happy New Year Hy T. Love Always Lynne." Herman didn't appreciate the gesture. When he saw it, he cried, "Jesus, I hope none of my friends see this."

Jean soon realized that she was being replaced by Lynne. The love-lorn woman's mental health was fast unraveling. She had sleep problems and was panicky, depressed, and confused. One night Jean sat down to write a letter to Herman. She reported the many injustices she felt she had suffered. The letter was overflowing with rage and agony, as well as virulent hatred for Lynne. At the end of the letter she called Herman a "vicious, adulterous psychotic." Discussing a banquet to be held in Herman's honor, Jean threatened to be there. "If that slut comes, I don't care if she pops naked out of a cake with her tits frosted with chocolate." She repeatedly called Lynne a "slut" and a "whore." Jean sent the letter to Herman by registered mail but almost immediately regretted sending it and called him Monday, March 10, 1980, to ask him to dispose of it as soon as it reached him.

Later that day Jean decided to end her life and called Herman, begging to see him that night. He told her it would be more convenient if they chatted the next day. After a lot more pleading Herman finally agreed. Jean then made the four-hour drive from the Madeira School in McLean to Herman's home in Purchase, New York. She had a handgun in her possession. After arriving at the home at ten p.m. and letting herself in through the garage, she found Herman in pajamas curled up in bed.

According to Jean's version of the story, Herman stared at her with his jaw open in disbelief, then snapped, "Jesus, Jean, it's the middle of the night."

Jean informed him she didn't intend to stay long.

"Well, I'm not going to talk with anybody in the middle of the night!" Herman said irritably and shut his eyes.

"I brought you some flowers," Jean whispered. Herman ignored her.

Jean then discovered Lynne's lingerie and curlers. She screamed as she picked up the negligee and the curlers and tossed them on the carpet.

Herman got out of bed and slapped her mouth, very hard.

Loved-crazed, Jean ran into the bathroom, where she picked up a jewelry box and tossed it at a mirror.

Herman hit her again, hard, on the mouth.

Jean sank down in front of Herman and said persistently, "Hit me again, Hy. Make it hard enough to kill me."

"Get out of here," Herman yelled. "You're crazy."

When she realized that Herman would not strike her again, Jean said, "Okay, I'll do it myself." She pulled the gun out of her purse and pointed it toward her temple.

Herman struck her hand and the gun fired, the bullet penetrated his hand. "Jesus Christ, look what you've done!" The wounded doctor rushed to the bathroom, and Jean found the gun under one of the beds. She was about to raise the gun to her temple again, but Herman grabbed it, and then made a phone call.

"Give me the gun, or shoot me yourself, but for Christ's sake let me die!" Jean begged.

"You're crazy," Herman said. "Now get out."

Jean reported that she couldn't recall what happened next. She believes that she grabbed the gun and engaged in a disastrous struggle with Herman. At one point the two of them were locked in the scuffle. Jean felt something solid digging into her stomach. Thinking

it was the gun, she pulled the trigger. There was a loud bang. “That didn’t hurt at all,” Jean thought. Then she realized that she had shot Herman.

Desperately, she attempted to commit suicide, but the chamber was empty. After breaking the gun in an attempt to refill it, she ran for help.

According to prosecution’s version of the story, Herman was asleep when Jean arrived, and she fired the gun. Herman had put up his hand in an effort to ward off the bullet. Jean then fired the gun several times more and ran into the bathroom where she threw Lynne’s things around.

Jean was arrested but released after her brother and sisters paid her bail of \$40,000. After telling her friends she didn’t care about a defense and just wanted to die because Herman was dead, she was signed into the United Hospital of Port Chester for psychiatric evaluation and therapy. She hired attorney Joel Aurnou as her defense lawyer. The case went to trial on November 21, 1980, and lasted fourteen weeks, becoming one of the longest trials in state history. The Korean-born Dr. Louis Roh, deputy medical examiner of Westchester County, testified that the number and location of wounds sustained by Herman were inconsistent with a struggle between a man of his size and a woman of hers. In cross-examination, Aurnou noted that Roh had changed opinions more than once from the one he had given in the autopsy report.

Jean was convicted of second-degree murder and sentenced to life in prison. Jean’s defense lawyer, Joel Aurnou, was heavily criticized for not preparing his client sufficiently for the trial. Much of the trial consisted of technical testimony that was hard for the jury to follow. The jury wasn’t offered the option of first-degree manslaughter, which would have given her a shorter sentence. And the mental health

professionals who tested and treated Jean weren't called to testify. Eleven years after Jean's conviction Governor Mario Cuomo pardoned her on December 29, 1992, as she was about to undergo quadruple bypass heart surgery.

Evolutionary psychologist David M. Buss and colleagues (1992) argue that we experience jealousy because it was evolutionarily beneficial to our ancestors. They argue that women tend to suffer more jealousy if their male partner is emotionally involved with another woman than if he is sexually involved, whereas men tend to experience more jealousy if their female partner is sexually involved with another man than if she is emotionally involved. They explain this difference as an evolutionary adaptation. For example, they argue that it would have been a great risk for a woman in ancient times if her man became emotionally attached to another woman; if he abandoned her (the first woman), there would be no one to provide for her and her children, increasing the risk that her children might die. The woman's genes then would not be passed on. By contrast, it would be a great survival risk for a man if his woman had sex with others because that might result in pregnancy and hence in him having to use scarce resources to raise another man's child. This would limit the survival of the man's own genes, as he would have fewer resources to keep his own children alive and well. Jealousy was a way of ensuring that these disadvantageous situations didn't arise as often as they otherwise would have.

The theory is not watertight. First, in many societies women were their own providers or contributed equally to the family as providers. Women in Ancient Egypt, for example, normally worked good jobs alongside the men they married. Going further back, the gatherers in hunter-gatherer societies contributed equally to the household. Many of these women could provide for themselves and did not depend on the baby daddy for food or security. Why were the

genes of those women not selected for? Second, when we become jealous it is often too late to ensure anything at all. The cheating woman might already have fallen rumbustiously in love with her new beau, and the adulterous man might already have impregnated his new babe. Third, jealousy seems to be considerably worse in people who suffer from an anxious attachment style, which suggests that jealousy is more closely tied to attachment than the standard theory lets on.

There is also reason to question the assumption that men and women respond differently to different kinds of adultery. Most of the studies that appear to confirm that men and women react differently have used college students as their only subjects, and as we all know, the demographics of the college student population is nowhere near that of the population as a whole (e.g., only 50 percent of the adult American population went to college).

A 2011 survey from Match.com, developed by Helen Fisher, showed that while stereotypical patterns once were true of men and women, the world has changed. The survey found that men on average are sappier than women, fall more quickly in love, and need less distance and alone time than women. Fisher believes the results reflect a cultural change: there is no longer consensus on how men and woman should behave; gender roles are a slippery thing and sometimes they reverse, which we can predict will also be reflected in how men and women experience an impending threat to a relationship.

A more plausible explanation of why we experience jealousy is that it's a by-product of an innate tendency to value an item more when we own it or believe we ought to own it than when we think we don't have any right to it. There is an asymmetry between how much we are willing to pay to get something we would like to have but don't have as opposed to how much we are prepared to spend to

keep things we would like to have and already have (or believe we have). Few people are willing to take fair bets. Here is an example of a fair bet. I will flip a fair coin and if it comes up tails, then you will pay me twenty dollars. If, on the other hand, it comes up heads, I will hand you twenty dollars. It's a fair bet. But few people are willing to take it, because winning twenty bucks does not feel good to the same extent that losing twenty feels bad.

Information scientist John Hershey and colleagues conducted a study of people's loss aversion. New Jersey and Pennsylvania both offer two types of automobile insurance: the cheaper policy comes with only a restricted right to sue, whereas the expensive policy gives people an unrestricted right to sue. However, whereas drivers in New Jersey are offered the cheaper policy as the default option, the default option in Pennsylvania is the expensive option. In the study, people were offered one of the two policies and were asked whether they wanted to switch to the other. Of those participants offered the New Jersey plan, only 23 percent chose to upgrade to the more expensive plan and the unrestricted right to sue, whereas 53 percent of the subjects offered the Pennsylvania plan decided that they wanted to retain the more extensive plan. Losing a right they had already been granted apparently was perceived with greater aversion than buying a right they didn't have to begin with.

Psychologist Daniel Kahneman and colleagues conducted a study in which the participants were given a coffee mug and then given the chance to sell it or trade it for a pen of the same price. The team found that when the volunteers had accepted ownership of the mug, they demanded twice as much for the mug compared to mugs they didn't own. Getting something nice in no way measures up to losing what you already have.

This phenomenon, discovered by economist Richard Thaler in 1980, is also known as the "endowment effect." The endowment

effect predicts that people value a good more once their property right to it has been established. People thus place a higher value on objects they own than on objects they do not own. This is an economic anomaly, as it violates economic theory.

Could this asymmetry in how we value something depending on whether or not we own it have been evolutionarily beneficial to us? It seems that it could. When items important to survival are scarce, gains are not as beneficial as losses are harmful. Sure, it may be lovely and even lifesaving to receive a plateful of roasted prime rib if you are starving and have only a little bowl of rice, but it would be much worse to lose your teeny bowl of rice. You may not survive without the roast beef, but you are one step closer to death without the bowl of rice.

This economic anomaly in people's psychology and behavior could be the reason people become jealous when they believe there is a risk that their partner is becoming interested in someone else. It may be a by-product of our instinctive interest in keeping what we have. If a gain of something gives us one pleasure unit, the loss of the equivalent gives us two discomfort units. Losses are excruciatingly painful. Gains are relatively less gratifying. Jealousy may be the anticipation of that agony, the feeling of an impending loss, a threat to the relationship. Jealousy, then, is not a warning sign that can make us prevent a disadvantageous situation from transpiring. On the contrary, it's a kind of discomfort or distress that arises in response to the thought of losing what we rightly possess. In addition to the evolutionary element, there may also be a cultural element to jealousy originating in the idea of having rights to things you own. If you own a car, you have a right to decide who is using it. Even if you don't care about your car, it would be wrong for me to steal it or paint it behind your back. Violations of ownership are wrong. Some forms of jealousy may be a similar kind

of response to the thought of other people using your “property” without your permission.

The ownership theory explains why anxiously attached individuals are more prone to disproportionate and unfounded jealousy than people with an avoidant or a secure attachment style. People with an anxious attachment style feel so closely connected to their partners that they are more likely to think they own them. As the French existentialist Jean-Paul Sartre argued, the rapacious desire to own another person is doomed to failure. Sartre took this to suggest that all love is doomed to failure. All instances of love, he thought, were ultimately an attempt to possess one’s lover. This is a rather cynical view, and it seems to describe the anxious types much more accurately than the secure or mildly avoidant ones. People with a secure or a mildly avoidant attachment style are more likely to see their partners as independent individuals. They don’t feel a strong sense of ownership with respect to their lovers. They don’t feel entitled to endless attention. So while they in all likelihood would be jealous if there were a real threat to the relationship, they don’t get green-eyed when their significant other spends time with people outside of the relationship.

Avoidance and Love as a History

“Love is not only rendered normatively appropriate by the presence of a relationship. Love, moreover, partly consists in the belief that some relationship renders it appropriate,” says Kolodny, who defends the history view of love (“Love as Valuing a Relationship,” p. 146). The history view has one apparent advantage compared to many

other theories of love. It can explain why we feel justified in saying that some individuals are incapable of loving. People who have serious problems with attachment do not seem capable of this apparently simple act. They have a mental model that represents relationships as inherently bad, as something that involves one person secretly longing after a fellow who is mostly or wholly absent, as something that cannot “render love appropriate” in Kolodny’s sense. As their inner working model is a belief system, they fail to believe that any relationship they have can render love appropriate. So the history view has the consequence that people who are seriously avoidant are incapable of loving. That seems right. Some individuals just don’t have what it takes. They frantically push away impending love because the very thought of it triggers unbearable discomfort. It’s an unconscious defense mechanism that makes them block or avoid any possibility of love. The fact that the history view can explain why seriously avoidant individuals are incapable of love clearly speaks in its favor.

Can theories that deny that a shared history is central to love or its validation explain why it seems that severely avoidant individuals are incapable of loving?

I think they can. Our belief system about attachment and relationship, our inner mental model, does indeed seem to have an enormous influence on whether we are in a position to love other people. But love does not consist of everything that may influence our ability to love. Helen Fisher has argued on many occasions that antidepressants diminish our ability to fall in love. The most common antidepressants, the SSRIs, raise the brain’s level of the feel-good chemical serotonin. It has been found that SSRIs can help treat mild to moderate depression, but they do so at a cost: the drugs can diminish the ability to feel. They may put an end not only to people’s

melancholy but also to their ability to feel excited. So, Fisher says, SSRIs can make you incapable of experiencing love. But no one would do the flip-flops needed to defend the insane view that love partly consists of the lack of SSRI consumption. SSRIs are merely a causal influence on our ability to feel that magic emotion we call “love.” The attachment system could be like SSRIs in this respect. If our hidden representations of relationships depict our romantic associations as something inherently bad, this could make the act of loving impossible without the attachment system being a constituent part of love.

There is also the possibility that seriously avoidant people are capable of falling in love but simply are not as aware of their emotions as others. Their love may sojourn below conscious awareness. The attachment system is widely distributed in the brain and consists in mostly unconscious information that represents interactions in a relationship. To say that these systems are unconscious is just to say that people are unaware of how the system works. For example, if you have an avoidant attachment style and your dazzling colleague invites you out for a quick pint, you may feel absurdly uneasy and promptly turn down the invitation with a juvenile excuse.

“No, no, not by the hair on my chinny chin chin,” you shriek, sounding like a babbling idiot, “Three Little Pigs... uhm... I mean, I have to read it for my niece tonight, and the rest of the month I will be as busy as JFK, LaGuardia, and Penn Station combined.”

You are aware of your farcical, almost Chandleresque, response but unaware of the brain mechanisms that determined how you got there. You are unaware of the content of your mental representations of relationships. But it is not too far-fetched to think that just as the mental models representing relationships can be unconscious, so can the psychological state we call “love.” We look closer at this suggestion in the next chapter.

Can Attachment Styles Change?

Bowlby argued that the attachment style formed in early childhood often continues to shape a person's behavior far into adulthood, permeating all future liaisons. The attachment style of adults, however, need not completely reflect the child's early interactions with a caregiver. Sometimes it undergoes a radical shift from one attachment extremity to the other.

In a longitudinal study of people's attachment styles, psychologists Lee A. Kirkpatrick and Cindy Hazan (1994) found that after four years, 70 percent of their sample had the same attachment style as they did at the outset. Thirty percent had thus undergone changes in attachment. Other studies have confirmed that about 30 percent of people undergo changes in their attachment style over various time periods. People who feel secure as children tend to feel more secure with their romantic partners as adults. But the internal model of relationships that is formed in early childhood continues to be updated and revised in light of later experiences.

Adult attachment is mediated by personal relationships throughout life. Peers and romantic partners eventually take over the role of primary attachment figure. In the best of cases, they become the source of safety, stability, and confidence. In the worst of cases, they become the source of anxiety, self-doubt, and mistrust. So the nature of friendships and romantic relationships can influence adult attachment in much the same way that early child-caregiver interactions can. Persistent bullying, a cruel partner, or a cataclysmic breakup can cause a person with a secure attachment to become insecure, or an anxiously attached person to become avoidant. Loyal friendships, healthy relationships, and improvements in interactions with parents can turn an insecure attachment style into a more secure one.

A longitudinal study carried out by psychologist Joanne Davila and her colleagues (1997) revealed that the likelihood that your attachment style will change depends on your susceptibility to change. How susceptible you are to change, in turn, depends on how stable your inner relationship model is. An incoherent or weakly defined mental model is more likely to undergo changes than a stable one. For example, if you have learned again and again that an attachment figure eventually disappears or abandons you, your insecure attachment style is less likely to change than if you have seen that attachment figures are sometimes very attentive and sometimes completely absent. The more fuzzy your attachment-related beliefs, the more likely you are to undergo changes in attachment style at some point during your lifetime. Therein lie the vicissitudes of fate.

The researchers also found that participants with a personality disorder or a personal or family history of psychopathology were more prone to attachment style fluctuations. This is unsurprising, given that many personality disorders, including psychopathy, involve a disturbance in the way intimate relationships are viewed. Narcissistic personality disorder, for example, involves a grandiose and complacent sense of self, exaggerated self-importance, addiction to fame and celebrity as well as severely disturbed and fluctuating interpersonal relations. Narcissists' mental representations of themselves and their relationships to others is typically fragmented and poorly structured. Think Steve Jobs.

A third factor that can elicit drastic alterations in a person's attachment style is a major life-altering event—for example, a difficult transition from elementary school to middle school, a maddening breakup, the horror of the estrogen- and testosterone-driven teen years, the unforeseen death of a loved one. Nerve-wracking transitions like these can mirror conditions in which a parent abandons a child. Moving onto middle school means parting with childhood

educators and old friends. Losing a lover or spouse can trigger feelings of abandonment. These changes can be so emotionally powerful that the mental working models representing relationships change or get messed up. Relationships no longer mean a safety net but something transient and hurtful.

Attachment Love

Psychologist Harry Harlow, who became famous for his studies of baby monkeys' attachment to the soft cloth mothers, argued that attachment is a kind of love: when you are attached to another person, you stand in a loving relation to her. Harlow's view seems right to me. Attachment is a species of compassionate love, a primal emotion that fills a void in a lonely life, helps us deal with nostalgia and fear of independence. It is the kind of love that often outlasts other kinds of love in marriage and long-term relationships, the kind of love that is warm and safe rather than thrilling, the kind of love that persists beyond the point when the hair on your head has migrated to your nose and your age starts to show around your middle.

Attachment can last even after a hostile divorce. In his studies of separated and newly divorced couples, psychologist Robert Weiss found an erosion of love and a persistence of attachment. The couples would confess disliking and even hating each other and yet long for the estranged partner and lament the loss of the emotional bond. Weiss concluded that "even when marriages turn bad and the other components of love fade or turn into their opposites, attachment is likely to remain" (*Marital Separation*, p. 44). Unfortunately, post-divorce attachment is rarely a satisfying emotion, as the former spouses no longer can provide security, connectedness, and protection

for one another. This lack of fulfillment can eventually shake the roots of secure attachments for all parties involved.

As psychiatrist Amir Levine and social psychologist Rachel Heller, point out in their 2010 book *Attached: The New Science of Adult Attachment and How It Can Help You Find—and Keep—Love*, the residue of attachment that remains in relationships that have gone sour partially explains why it is so difficult for long-term partners to leave each other. Detachment is a greater enemy than mediocrity, because the part of the brain that underlies attachment is not wired for relationships that are not forever. The unconscious brain considers attachment something valuable, something to maintain at any cost, because staying together was evolutionarily beneficial to our ancestors. Because the attachment system dates back to ancient times, it is so deep-seated that we have little control over the bonds we form. They are more deeply rooted than romantic love.

While it is difficult to shake attachment, romantic love often fades all too quickly without any warning or apparent explanation, leaving only attachment love in its place. When talking to my mother about this subject, she offered the following illuminating story. For many years ever since she was a teeny girl, the holiday season meant something special to her. The dazzling sight of the mesmerizing city, the wondrously decorated buildings, the glittering windows, the rich scent of spiced wine and caramelized almonds, and the gigantic glistening Christmas tree would elicit in her a feeling of Dionysian ecstasy. Then one day it was gone. Puff. No warning signs, no slow fading away. The spine-tingling sensation had completely vanished. She still found the shimmering lights and ornamented trees a pleasant sight and still thought there was something safe and comfortable about the holiday season. But the bodily component of her yuletide experiences had drastically changed. She had fallen out of

love with Christmas. What remained once the intense infatuation had left her was a kind of attachment love.

While love of objects and events is different from love of people, the story illustrates how sudden the transition from passion to attachment can be. When Cupid's golden arrow penetrates your chest, you become spellbound, sparks are flying, and the rest of the world doesn't matter until the transformation occurs and the love grows fainter. When the romance dwindles, we are in the best of cases left with feelings of security, connectedness, and protection. It's Trader Joe's three-buck chuck instead of Margaux Bordeaux, 1986, or St. Louis Zoo's conservation carousel instead of Six Flags' Mr. Freeze or a Sunday afternoon by Lake Michigan instead of two months of exploration in Thailand's jungles.

What triggers this shift is not completely known. But we do know that the feeling of security, connectedness, and protection is crucial to the stability of long-term relationships and marriages, especially if children have arrived along the way. You need to know who is making the trip to the grocery store, who is changing the diaper, and who is heating the bottle. You need to know that the mortgage will be paid next month and that there is someone to curl up with on the couch late at night when the nursling finally goes to sleep. But it is exceedingly difficult for the two types of love to co-exist. Romantic love is normally fueled by insecurity, unpredictability, and novelty, components that stand in complete opposition to the factors that produce attachment. We nonetheless want both types of love. We want what cannot co-exist.

Can Animals Love?

Whether non-human animals can experience romantic love is unknown. But there is some evidence that they are capable of experiencing the

same range of emotions that we can. The brains of many mammals are surprisingly similar to the human brain. Take as an example the brain of a cat. A cat's brain is small compared to ours, occupying only about 1 percent of their body mass compared to about 2 percent in an average human. But size doesn't always matter. Neanderthals, the hominids that went extinct more than 20,000 years ago, had bigger brains than *Homo sapiens*, but they probably weren't smarter than the *Homo sapiens* that beat them in the survival game. Surface folding and brain structure matter more than brain size. The brains of cats have an amazing surface folding and a structure that is about 90 percent similar to ours. This suggests that they could indeed be capable of experiencing romantic love. But we will probably never know for sure.

There is one thing we do know though: your dog or cat doesn't regard you merely as a food dispenser. Pets as well as zoo animals form strong attachments to their caregivers. As attachment is a form of love, animals are indeed capable of loving their caregivers.

Dogs have been reported to love their masters so deeply that they mourn their death for many years. Such was the case of Greyfriars Bobby, a Skye terrier in Edinburgh, Scotland. He served as Constable John Gray's companion, until Gray's death in 1858. After Gray's funeral, Bobby was spotted sitting on top of his master's grave in Greyfriars Kirkyard. The loyal police hound is reported to have spent every night at his master's grave until his death fourteen years later.

The attachment of dogs to their owners has been confirmed in a study conducted by Daniel Mills, a British specialist in clinical animal behavior. The study used an adaptation of Ainsworth's strange situation paradigm, in which the researchers observed the reaction of dogs and cats in response to their owners and strangers. He found that securely attached dogs tended to behave similarly to infants when their owners left, whereas cats tended not to do that. If anything, cats

tended to have a more avoidant attachment style, often ignoring their owners and happily greeting strangers. These results, of course, do not show that cats are incapable of attachment. While cats no doubt tend to have a more avoidant attachment style than dogs, most of us know from anecdotal evidence that there can be enormous differences in how attached cats are to their owners. My own two cats, Bertrand Russell and Roderick Chisholm (named after philosophers like my other cats) are undoubtedly anxiously attached, clinging tenaciously to me to the point of annoyance.

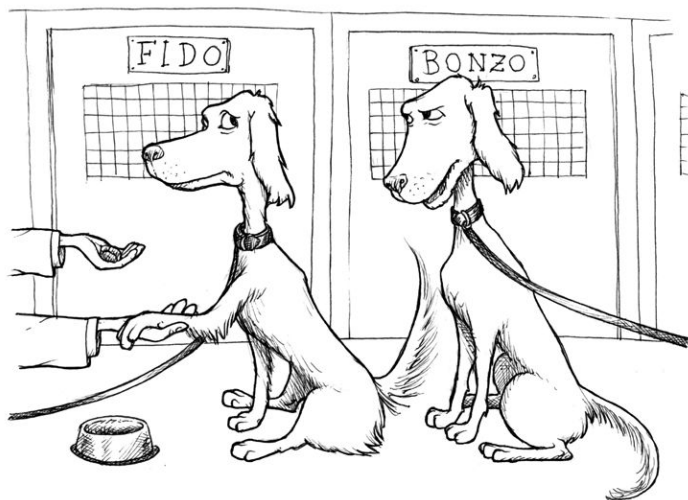
While it seems relatively uncontroversial that dogs can be attached to their owners and that the owners assume the role of caregiver, there is also evidence that dogs can temporarily take over the role of caregiver. Dogs seem to be attuned to the emotions of their owners and are able to act as a loyal companion in times of need. In a study published in the September 2012 issue of *Animal Cognition*, University of London researchers found that dogs were more inclined to approach a crying person than someone who was talking or humming, and that they responded to crying with submissive behavior. According to the researchers, this contrast indicates that the dogs' response to weeping wasn't simply the result of curiosity but was based on a primitive understanding of human distress. These findings indicate that when a dog comforts his sorrowful owner, the caregiver-recipient roles are sometimes reversed. The dog temporarily becomes the caregiver, which suggests a more sophisticated attachment pattern in dogs than in infants.

These results have also been confirmed with brain scans. Gregory Berns, a neuroscientist at Emory University, used fMRI neuroimaging to test the brains of dogs. This is no simple feat. fMRI scans only work if the participants lie completely still, which dogs normally aren't capable of. However, Berns trained his dogs to lie still in the tight compartment of the scanner, which made the brain imaging

feasible. The results were astonishing. Berns's lab team found increased activity in regions of their brain associated with attachment, empathy, and a theory of mind in response to their owners. A theory of mind is a belief system about what others think and want that is continually updated. So, dogs apparently wonder what their owners are thinking about.

Animals seem capable of experiencing a range of emotions. Among these are envy as well as attachment love. The awe-inspiring story of Tika and Kobuk, two malamutes who had been companions for years, testifies to the attachment. Together the two dogs had bred and raised eight litters of puppies. But Kobuk was a bit of a bully. He would eat Tika's food and shove her away if he got the chance. He would also attempt to steal away any attention people gave her. But the bullying came to a complete hold when Tika developed cancer in her leg. Kobuk's behavior changed entirely. He let Tika sleep on the bed, while he rested on the floor. He groomed her face and neck and would not leave her side. Tika's leg eventually had to be amputated. In the beginning it was quite a challenge for Tika to walk on three legs. When she stumbled and fell Kobuk would try to help her. He even saved Tika's life when she was going into shock during her recovery from the amputation. Kobuk was barking to wake up the owner, who rushed Tika to the hospital. Thanks to Kobuk's attention and love, Tika survived. Kobuk continued to care for Tika while she was still recovering. But once Tika had fully recovered and had learned to walk on three legs, Kobuk was back to his old behavior.

Animals also sometimes form attachment relationships with members of other non-human species. The BBC documentary *Animal Odd Couples* from 2012 features several unusual attachment relationships, among others that between Anthony, a giant lion, and Riley, a little coyote. When Anthony and Riley were brought to "Keepers of



“Brother, let us unite against our common oppressor; we have nothing to lose but our leashes.” Studies indicate that dogs experience a variety of emotions, including envy and attachment love. In a study published in the January 2009 issue of *Proceedings of the National Academy of Sciences*, paired domestic dogs were given commands to place their paws in an experimenter’s hands. When they obeyed, they were rewarded. When the experimenter rewarded only one of the two dogs, the unfairly treated dog would refuse to obey the commands until it felt that there was once again a fair distribution of treats (Range et al., 2009). © Gareth Southwell.

the Wild” animal sanctuary, they were only about a month old. They immediately bonded. They enjoyed playing and grooming each other. When they arrived at the sanctuary, they were the same size but that quickly changed. The lion rapidly outgrew the little coyote. Despite their extremely different physique, their early bond continued into adulthood.

Attachment love is not restricted to mammals. In his 1999 book *Mind of the Raven*, biologist Bernd Heinrich argues that since ravens have long-term mates, they must feel a form of attachment for each other. Otherwise it is difficult to explain what keeps the couple together for a lifetime. Although not all birds mate for life, many do. Brant geese are no exception. The BBC documentary features a male Brant goose who has chosen a forty-five-year-old female Aldabra tortoise as his soulmate. He chases away anyone who tries to get near her, ensuring that she gets to eat her crisp lettuce without any interference. The hefty female tortoise contentedly puts up with his protection and care—in fact, she seems to enjoy it. A truly kooky couple.

6

SOMETIMES THE HEART SEES WHAT
IS INVISIBLE TO THE EYE

UNCONSCIOUS LOVE

Love does not always manifest itself as a conscious experience. To view romantic love simply as a long-lasting conscious state is hopelessly naïve. Love doesn't feel like an urge or an impulse; sometimes it feels like giddiness, awe, appreciation, or interest but most of the time it doesn't feel like anything at all. Most of the time we don't give it a single thought.

Even in the very few phases of my life during which I can truly say that I have been head over heels in love with someone, I have not found myself rapturously responding to my sweetheart every minute of my waking life. Love is consciously manifested only episodically. I certainly had better things to think about when the mean guy from Charter closed my windows before I had a chance to bookmark them, or when I ordered a Happy Meal while pretending to have a kid in the other room because the talking chipmunks just are so damn cute. Zoe's love for Brandon was not pulverized when she didn't consciously feel it. When her love wasn't felt, it was still there in her brain in the form of long term potentiation (memory) or weak nerve signals—nerve signals that, owing to other distractions, did not give rise to conscious experiences.

The same goes for other powerful emotions. The deep-rooted resentment Zoe felt toward Brandon was not surfacing as a conscious experience for years, but it was brewing inside her, like lava in a volcano. Finally it emerged as a conscious feeling that overshadowed

her positive affections for him. In a recent letter she wrote: “Right now I feel maybe eighty percent negative feelings towards Brandon. Twenty percent of me is still thinking about him as an amazing person. But I know now that I never want to see him again.”

There is a certain air of mystery surrounding the notion of the unconscious. But the concept really isn't all that enigmatic. Your unconscious thoughts and emotions are simply those parts of your mind that you don't have explicit knowledge about but which nonetheless guide your behavioral patterns and form your personality. Of course, if you are particularly good at analyzing your own behavior and personality traits, you may have insight into your unconscious thoughts and emotions. But people typically are not very self-observant, and when they are not, others may have a better comprehension of their unconscious thoughts and emotions than they do. An old friend may have noticed that you always seek out emotionally unavailable men and may have inferred from that that you implicitly fear intimacy. Or a co-worker may have observed that you always prattle on about your buddy Hank and giggle spontaneously when he is present and may have inferred on the basis of your behavior that you are crazy in love with him, long before the thought has occurred to you.

Opponents of Unconscious Affection

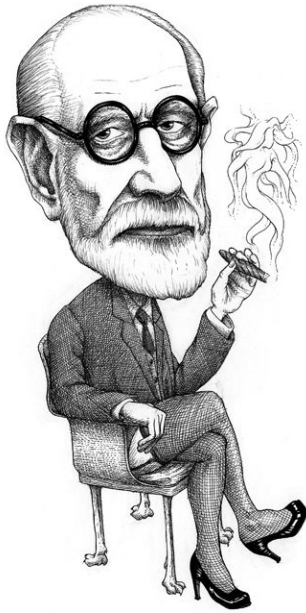
Despite the seeming prevalence of unconscious emotions and their influence on our lives, there is much controversy in philosophical and psychological literature over whether there are unconscious emotions, let alone unconscious love. The main reason for this is that emotions when consciously manifested are exemplars of conscious experiences. Many philosophers and psychologists straightforwardly equate emotions with feelings. They, thus, equate emotions with the

conscious. They equate them with something that cannot occur below the level of conscious awareness.

The idea that emotions require consciousness stems in part from studies on people with spinal injuries. American Psychologist George Hohmann conducted a study of soldiers who suffered spinal injuries in World War II. He asked them to recall emotion-arousing incidents from before and after the injury and found that those with injuries in their legs reported little to no difference. Those who were injured from the neck down reported decreased emotional responses involving parts of the body below the neck. For example, those who were demobilized below the neck reported little sexual arousal. However, they seemed to have the full range of emotions involving parts of the body above the neck. They would feel choked up, cry, and show normal facial expressions. They could feel some forms of romantic love and compassionate love but they could not feel sexual desire. They were deprived of some emotional life. There was clearly a correlation between the location of the injury and the range of emotional feelings. This indicates that a lack of ability to perceive changes in the body entails an absence of emotional experience.

Whether there can be unconscious emotions has always been the subject of much controversy. Even Sigmund Freud, the sex-crazed doctor who was responsible for popularizing the notion of the unconscious (Friedrich Nietzsche had already offered an account of it) denied that there can be unconscious emotions. For Freud, trains are big penises, but the concept of an unconscious emotion is a contradiction. As he put it:

We should expect the answer to the question about unconscious feelings, emotions, and affects to be just as easily given. It is surely of the essence of an emotion that we should be aware of it, that is, that it should become known to consciousness. Thus the possibility of the attribute of unconsciousness would be completely excluded as far as emotions, feelings, and affects are concerned.



Psychiatrist Sigmund Freud (1856–1939). Freud was responsible for popularizing the notion of the unconscious. One of the most telling anecdotes about Freud is the story of his encounter with American psychologist Gordon Allport. When first introduced to Freud on a visit to Austria, Allport reported that he had encountered a young boy on the train on his way to Vienna, who had an intense fear of getting dirty. Allport speculated that perhaps the boy had acquired his dirt phobia from his mother. Freud glanced at Allport for a while. Then he said sympathetically “And was that little boy you?” Freud wasn’t truly Freudian in his approach. Since Freud, psychoanalysts have attempted to create a sterile and quiet environment that can prevent the analyst from becoming a real person to the patient. Freud’s sessions were not very sterile. They would frequently be attended by his Chinese chow Yofi and occasionally by his daughter’s wolfhound that was known to sniff the genitals of Freud’s patients. © Gareth Southwell.

But in psychoanalytic practice we are accustomed to speak of unconscious love, hate, anger, and so on, and find it impossible to avoid even the strange conjunction, “unconscious consciousness of guilt,” or a paradoxical “unconscious anxiety.” Is there more meaning in the use of these terms than there is in speaking of “unconscious instincts”? (Freud, *Collected Papers*, pp. 109–110).

For Freud “instinct” or “drive” are better terms for the states I want to refer to as unconscious emotions. In this respect, he is one with Helen Fisher who believes romantic love is a drive (though for different reasons).

Unconscious Affect

Despite the ferocious opposition to the idea that emotions can be unconscious, lots of cases appear to be candidates for unconscious emotions or affect. Scientists have discovered that people with lesions to parts of their visual cortex, which leave them partially or fully blind, sometimes have a kind of residual vision called “blindsight.” People with blindsight report having no conscious vision in their blind field, but when they are prompted by an experimenter to make a guess about something in front of them, they can use visual processes to predict the thing’s location, direction, and color. They cannot consciously see the thing they make guesses about. They are unaware of it, blind to its presence. But they can nonetheless “sense” it through alternative unimpaired visual pathways. Patients with blindsight have a kind of sixth sense that informs their gray matter about where the thing in front of them is located and what its color is, but the sixth sense does not allow them to consciously see anything.

Some people with blindsight respond to emotional stimuli without being consciously aware of them. This form of blindsight is called “affective blindsight.” Individuals with affective blindsight have no visual awareness but they can correctly guess the emotional expression of a face presented to them in their blind field.

Neuroscientist Beatrice de Gelder and her colleagues discovered that when threatening faces are presented to blindsight subjects too quickly to be consciously perceived, the faces can nonetheless give rise to bodily changes that indicate fear. Blindsight patient G.Y., who has damage to his primary visual cortex, was shown short video clips of a female face pronouncing the same sentence with either a happy, angry, sad, or a fearful facial expression. G.Y. was able to make greater than chance about the different emotional expressions presented to him in his blind field. He could not consciously see the emotional expressions but he could make good guesses about them when prompted by the experimenter. G.Y.’s emotional brain (the amygdala) also turned out to be activated during the presentation of the fearful facial expressions. These findings suggest that fear responses do not require conscious representation in the visual brain but can be computed in alternative unconscious (subcortical) pathways.

Surprisingly, psychologist Alfons Hamm and his colleagues found that blindsight patient K.-H. J., who has no active visual cortex, had unconscious emotional reactions to facial expressions. K.-H. J. had a complete loss of vision from damage to an artery in the brain. K.-H. J. was unable to grab objects in front of him. He did not turn toward new visual stimuli and could not even recognize bright light. He did not report any feeling or awareness when lights were turned on in a dark room. However, when presented with fearful and angry faces, K.-H. J. showed reliable fear responses, for example, startle responses. There was also increased activity in his emotional brain (the amygdala) in response to emotional stimuli.

K.-H. J. furthermore showed an acquired protective reaction in response to a cue that predicted the occurrence of an aversive event. K.-H. J. couldn't consciously see anything. Yet his emotional brain would respond with fear and activate defense mechanisms.

There are countless other good reasons to take the concept of an unconscious emotion seriously. In the 1970s, homosexual men were habitually "cured" through cognitive-behavioral therapy. However, studies later showed that homosexuals who had suppressed their affective responses toward men through behavioral therapy remained physiologically aroused by pictures of naked men. The studies measured the degree of erection of their penises when shown pictures of naked men compared to pictures of naked women. All of the "cured" men had a larger erection when shown pictures of naked men compared to pictures of naked women. The opposite was seen in heterosexuals. These "cured" men can hardly be said to have no sexual affect toward men. They had emotions; they just weren't consciously aware of them.

People in a coma sometimes are able to process thought and emotional stimuli unconsciously. Yvonne Sullivan suffered severe blood poisoning during childbirth on July 5, 2007. Her baby Clinton died from a blood infection after a fourteen-hour long labor. Yvonne's vital organs started to shut down soon after the labor, and she fell into a coma. When doctors told her husband Dom who had stayed by Yvonne's bedside for two weeks that they might have to turn off her life-support system, Dom snapped and gave his wife "a firm telling-off." After two hours Yvonne started breathing on her own. Within five days, the hospital was able to shut off the life-support system, as Yvonne regained consciousness. Yvonne said she remembered her husband telling her off.

"I can't remember exactly what he said but I never liked getting told off by Dom," she said. Though Yvonne reports that she remembers her

husband chewing her out, there is no evidence that she was fully conscious of her thoughts and emotional reactions at the time. A coma is a state of unconsciousness in which the eyes are closed and the patient cannot be roused. But while Yvonne wasn't conscious of her husband's angry words at the time, her brain was nonetheless able to process the off-putting stimulus unconsciously, and the stimulus was able to trigger negative emotional reactions in her, unconscious affects that made her brain "decide" to wake up.

Even those of Hohmann's poor soldiers who were injured from the neck down had unconscious emotions. They reported that they did not have any significant conscious emotional experiences. But they said that they would sometimes act in the same way as before in emotion-arousing situations. For example, in anger-provoking situations, they reported that they would act angry but that they would not *feel* angry. They would behave jealously when they thought a spouse had sexual escapades outside the marriage but they would not feel jealous. One soldier said, "It just doesn't have the heat to it that it used to. It's a mental kind of anger." The fact that emotion-arousing situations would elicit the same actions in the injured men suggests that while these men were incapable of conscious affect, they were capable of partially unconscious processing of affective stimuli. Hohmann's soldiers had emotions that did not occur at a conscious level.

Unconscious affect is required also to explain a neurological condition called Capgras syndrome, named after French psychiatrist Joseph Capgras who first reported it. People who suffer from this condition see family members and friends as impostors. They can perceive faces, but they don't connect that face with a feeling of familiarity. One patient Madame M. thought that her family and neighbors had all been replaced by look-alikes. She thought that she had had eighty husbands. One imposter would leave and a new

one would enter. Another subject admitted that the person in front of him looked exactly like his dear mother down to the smallest detail but he could not fathom why his mother would hire an impostor. People with Capgras syndrome sometimes believe their own mirror image is the image of an impostor. They cannot have mirrors in the house because it feels mortifying to be met by a stranger when glancing into one. Occasionally trees, tables, and tools are seen as perfect duplicates of what the sufferers once had in their possession.

Many movies and novels have been inspired by Capgras syndrome, for example, *Invasion of the Body Snatchers* and *Total Recall*, *The Stepford Wives*, and Richard Powers's novel *The Echo Maker*. In *The Echo Maker* a young man develops Capgras syndrome after a car accident. He believes his sister and his dog are impostors. But here is one of the story's clever twists: the cranes in the city are aliens. They have consciousness even though we fail to recognize it. One of the book's characters speculates that we all have Capgras syndrome to some extent and therefore do not recognize that the cranes are conscious beings just like us.

Capgras syndrome is due to a deficit in the link between the brain's face recognition mechanism and the emotional brain. Face perception normally triggers unconscious emotional "like" or "dislike" responses in the emotional brain. These emotional responses help us recognize people we know. When our emotional brain whispers "like" or "dislike" in our cognitive ear, an instant feeling of familiarity is produced. This feeling of familiarity is the moment of recognition, our brains responding with "I know you." The unconscious emotional "like" or "dislike" responses are lacking in patients with Capgras syndrome. They recognize their moms, sisters, mistresses, and babies through vision; they realize that the person in front of them looks like someone they know, but because of their

syndrome, they do not react with compassionate love (or hatred) toward the loved one. While they are able to recognize that the face resembles the face of someone they know, the face does not trigger the standard emotional “like” response and hence recognition of the face elicits the feeling that the face belongs to a stranger rather than a loved one.

Two Emotional Pathways

Neuroscientist Joseph LeDoux has uncovered further scientific evidence for the view that there can be unconscious emotions. When we experience fear, this can result in action in two different ways. LeDoux holds that our sensory organs project information to the thalamus, a deep structure on top of the brainstem, near the center of the brain. In the thalamus, emotional stimuli divide into two separate streams both projecting to the amygdala, the part of the brain that processes fear. If we are faced with a threatening grizzly bear, the brain may take in information through the perceptual system but project it directly to the amygdala. In that case we might exhibit fear responses before becoming aware of the fearful stimulus or the bodily fear reaction. This response is fast and may be crucial for surviving in threatening situations. A different pathway for processing fear involves first being consciously aware of the threatening stimulus, which then activates the amygdala and results in a fear response. This pathway is slow but also provides more details of the threatening situation and can therefore reinforce the fear response, detect false alarms, and inform us in situations that require careful decision making.

The fast pathway, which is about half a second ahead of the slower pathway, leads to unconscious fear responses that can lead to

actions long before we become aware that something is not as it should be. The fear in this latter case can still be considered a bodily response to a perception of an external stimuli, but you are not immediately aware, if aware at all, of the perception of the external stimuli or the bodily response. They occur below the level of conscious awareness.

The existence of the fast pathway to fear, LeDoux says, not only helps us respond very quickly to fearful stimuli, it also explains how people with amnesia can respond very quickly to emotional stimuli, despite being unable to consciously recall any connections between a situation and potential danger.

About one hundred years ago, Édouard Claparède, a Swiss psychologist, was seeing a patient with an incapacitating form of amnesia after a brain injury. Like the main character in the movie *Memento* she was unable to store new information in memory for longer than a few minutes. Her reasoning skills and older memories were relatively intact. When she showed up for her appointments with Dr. Claparède, he had to introduce himself to her as he would have done if she had never met him. This had to be repeated if he left the room for more than a few minutes, because she would have forgotten who he was in the meantime. One day Claparède decided to conduct an experiment. He hid a needle in his hand, so when they shook hands, she felt a painful pinprick. At the next appointment, the woman greeted him cheerfully as usual, remembering nothing from the last appointment. But when he reached out to shake her hand, the woman refused to take it. She could not explain why. Although she had no conscious memories of what had transpired earlier and was not consciously fearful of the situation, she had acquired a subconscious fear of her doctor's hand.

LeDoux's theory explains why amnesiacs can respond to perceived fearful stimuli without any awareness of the fearfulness of the

stimulus or the fear it provides and with the ability to explain their fear behavior. The fast pathway for fear processing and fear conditioning allows fear to be stored and retrieved without the subject's awareness. Fear doesn't require consciousness or the ability to remember but nonetheless can transpire below the surface and affect behavior.

Unconscious Love

Just as fear, joy, disgust, sadness, anger, pride, and shame can occur below the level of conscious awareness, so love can be buried deep inside our unconscious minds and jump out and surprise us when we least expect it.

Ryan and you have been best friends for as long as you remember. You are like brother and sister, except closer and more open about everything on your minds. You share intimate details about each other's relationships and heartbreaks. Then one day you wake up and realize that you are in love with Ryan, giddy with delight. To your great relief you find out that it is mutual.

What exactly happened? Did your brain send a surge of love chemicals into your bloodstream overnight? Not likely. Chances are that you have been in love for an eternity. Beneath your tranquil, sociable interactions, love was brewing—hidden in the shadows of your unconscious. You might have started off as buddies, then gradually the camaraderie transformed into romantic love without you even noticing. You have heard well-meaning pals insist that the two of you would be fabulous together. You crave each other when apart. You call each other cute little names: "PoohBear," "buttercup," and "suga'pieHoneyBun." You talk each other up in the presence of other people. But it never dawned on you that these subtle behaviors were

manifestations of love. Your love not only went unnoticed by others; you simply weren't aware of it yourself.

This may also have been the case for Josephine in her tragic relationship with Napoleon. In the nineteenth century, one of the directors, Paul Barras, in Paris wanted to marry off his mistress Rose to Napoleon. The French political leader was immediately smitten when he saw the breathtakingly beautiful Rose. He renamed her "Josephine." Initially Josephine would not marry Napoleon, but when Barras threatened to stop providing for her if she didn't marry him, she agreed. Napoleon loved her deeply, but she despised him and immediately took on lovers. When Napoleon heard about her infidelity on a trip away from Paris, he was destroyed. His love for her was gone but for the rest of his life he would never really love another woman the way he had loved Josephine. When Napoleon returned to Paris after his trip, Josephine had all of sudden fallen in love with him. But it was too late. Napoleon no longer trusted her and went on to have a series of affairs, which heralded the end of their marriage. Napoleon later divorced Josephine and married another woman whom he didn't love. The doleful Josephine continued to love Napoleon and when she was dying from diphtheria, Napoleon's name was one of the last words she uttered.

Josephine's love for Napoleon no doubt didn't arise momentarily when Napoleon returned from his trip to Paris. She was more likely resisting her growing "feelings" for him. But when they finally became consciously manifested, it was too late.

Another example of unconscious affection comes from Damasio's studies of his fascinating patient, David. David had suffered extensive damage to both temporal lobes and had learning and memory difficulties. He could not recognize or name any person he was interacting with on a daily basis or remember whether he had ever seen the individual before. But David nonetheless showed consistent preferences

and avoidances for certain people. In one of Damasio's studies David was exposed to three people over a period of time. The first person was pleasant, welcoming, and rewarding. The second person was the emotionally neutral person. And the third was bland and tedious. After the encounters, David was shown photographs of the three people and could not remember whether he had met them before. However, when asked who he would go to if he needed help and who was his friend, David consistently chose the good guy and consistently failed to choose the bad guy. The experiment indicates that David had unconscious affective states that directed him toward the good guy. Though he perceived the stimulus, he was unaware of his body and mind's loving response toward the good guy. But it affected his choices and decisions.

Your love can also start out as conscious and then become unconscious because it isn't reciprocated or because it is inappropriate. In one magical moment of realization, Zoe's feelings for Brandon changed from ecstasy, excitement, and awe to hatred, bitterness, and a promise to herself that next time she waves to him she won't use all her fingers. Her scornful reactions to Brandon had been brewing inside her all along. But she was unaware of them until the final moment when they finally surfaced.

Even though Freud thought the notion of an unconscious emotion was a contradiction in terms, many of his cases demonstrate unconscious emotions that have been repressed because of their painful and conflicting nature. In the fall of 1892 a patient, Elizabeth von R, went to see Freud. She complained about pain in her legs. After an examination over several sessions, Freud gave her the diagnosis that she was unconsciously in love with her brother-in-law. She claimed that she didn't believe him and accused him of shameful lies. Yet right after Freud's diagnosis Elizabeth's leg pain immediately intensified. Elizabeth's denial is what Freud later called "resistance."

The notion of resistance has received its fair share of criticism. Critics claim that the notion puts psychoanalysis beyond refutation. If the patient accepts the analyst's diagnosis, this vindicates the theory. If she rejects it, this is a sign of resistance. This too vindicates the theory. The theory is a self-fulfilling prophecy, critics say. However, this criticism is undeserved. Resistance isn't simply denying the analyst's diagnosis but ferociously denying it in spite of overwhelming third-person evidence that the analyst is right.

Elizabeth's unconscious love of her brother-in-law was blatantly obvious to everyone but Elizabeth herself. She enjoyed long walks with him. She even admitted to herself feelings of tenderness, hoping she might one day have a husband like him. She took his side in arguments, and one day when a lady had criticized his figure she "flared up" and defended him "with a zeal which she herself could not understand." Her sister had joked about the friendship between Elizabeth and her husband, saying "the truth is, you two would have suited each other perfectly." Her mother later admitted that she had been suspicious of this all along, though before the sister's death, none of the family members would have openly admitted it. One day Elizabeth ended her session with Freud because she heard her brother-in-law in the next office. Her resistance consisted not simply in her denial of her love of her brother-in-law but rather her denial of her love of her brother-in-law in spite of evidence that indicated otherwise.

After her sister had fallen ill, Elizabeth went to see her but arrived too late. Her sister had died. Elizabeth's first thought was "Now he is free and can marry me." But she would soon convert the painful realization into physical pain. According to Freud, the conversion of her love of her brother-in-law into the pain in her leg was a process of disguising, censoring, and distorting the content of her love. Elizabeth's unconscious love for her brother-in-law had been partially

converted into the pain in her legs because of the human condition: Shameful or painful love, which transgresses the moral order or appears threatening in some other way, must be pushed away from consciousness. “She succeeded in sparing herself the painful conviction that she loved her sister’s husband, by inducing physical pains in herself instead,” wrote Freud in *Studies on Hysteria* in 1895 (*Studies on Hysteria*, p. 227).

When you are unaware that you love someone, you or others can come to discover that you are in love by noticing overt signs. Aha! Eureka moment. There is a reason you have been behaving so foolish lately, particularly in front of the object of your affection: You are in love!

Although overt behavior can reveal whether you are in love, behavior is not always an unmistakable sign that you have been hit by Cupid’s golden arrow. You can easily be misled by your own behavior and mistakenly come to think that you are in love. Having incredible, earth-shattering sex with someone or staying with someone for decades may be misinterpreted as being a manifestation of love. On other occasions you may simply not know whether you are in love. We don’t have direct access to our unconscious affections, and the overt signs pointing to our unconscious state of mind may not be informative enough for us to come to any firm conclusions.

In Your Dreams

Our unconscious affections have their own ways of rearing their ugly (or not so ugly) heads. As Freud observed, dreams are one place where they come to light. In *The Interpretation of Dreams*, the famed psychiatrist argued that dreams had hidden meanings that reflected the dreamer’s unconscious (or subconscious) mind, particularly her

fears, desires, and urges. Dreams, he said, are Kafkaesque letters to ourselves from our unconscious mind. To illustrate, Freud discussed one of his own dreams. In the dream he is seeing one of his female patient at a large reception. As he takes her aside to ask her why she was not following his recommended treatment it becomes clear that something serious is wrong. With the help of colleagues they discover that she has a serious infection. Freud took this dream to reflect his worries about a particularly difficult patient he had in real life. Freud believed that the dream narrative and images, which he called the manifest content, served to disguise your unconscious wishes, the latent content. It was the job of the therapist to unearth the latent content of the dream from its manifest content.

Nowadays many believe that Freud was both right and wrong about dreams. He was wrong to think that there normally is an obscure symbolic layer to dreams requiring expert interpretation; he was right that dreams can provide an accurate reading of our emotions, desires, fears and worries, but the dream content openly reveals the meaning of the dream. In his 2012 book *Dreamland: Adventures in the Strange Science of Sleep*, journalist David Randall reports on a dream from the online Dream Bank by a man named Ed who lost his beloved wife to ovarian cancer. In the dream Ed spots his wife sitting in a car across the street but he cannot find a way to reach her. The dream evidently portrays love and grief. If Ed thought he was over his wife, the dream can inform him that his subconscious still struggles to accept the inevitable victory of death. By processing fears and worries, dreams may also function as a kind of therapy. In her 1991 article "Dreams That Work: The Relation of Dream Incorporation to Adaptation to Stressful Events", psychologist Rosalind Cartwright proposes that dreams function as a healing mechanism by relating new emotional problems with older problem-solving strategies that have been successful in the past.

Dream researcher G. William Domhoff is an avid defender of the theory that dreams openly reveal wishes and concerns in real life. Domhoff has shown that a typical dream report provides a coherent, clear, and detailed account of a realistic situation and the dreamer's emotional responses to the events that transpire in the dream. About 50 percent of dreams include specific emotions, and about 80 percent of the emotions that appear in dreams are negative, such as embarrassment, sadness, anger, aggression, and fear.

Dreams are one of the best guides to our hidden psychological traits. Domhoff only needs seventy-five to one hundred dreams to profile you. As he puts it, "We have shown that seventy-five to one hundred dreams from a person give us a very good psychological portrait of that individual. Give us one thousand dreams over a couple of decades and we can give you a profile of the person's mind that is almost as individualized and accurate as her or his fingerprints." Amazing, but also a tad scary!

Domhoff rejects the view that dreams reflect what is going on in our unconscious minds. He supports his opinion with evidence showing that the content of dreams often reflects worries and concerns that the dreamer is fully conscious of in waking life. Domhoff certainly is onto something. But an intermediate position may be more realistic. The evidence he provides for his view does not demonstrate that dreams cannot reveal something about your psyche, something you were not already aware of. If we search the dreams of a participant known as "Kenneth" at Domhoff's site DreamBank.net using the search term "love," we find that several dreams concern fears about his father's death and Kenneth's love for his father. Here is one of them in its entirety:

My dad has died. I'm at his funeral. He is in his casket wearing a navy blue suit. He is black, his skin. On his chest are an American

Flag, shiny shoes, and an Army hat. I place a blue skittle on his jacket, because it is all I have for remembrance. We all cry a lot, especially me. I hug my mom, and cry hard. She seems surprised because I am so emotional. I tell her I love her. I tell Grandpa and Grandma Redding, who are on my right, that I love them too. I regret that I didn't tell my dad I love him more when he was alive. We join hands and sing a happier song, swaying and clapping. The Robbins family is across from us in a pew. They make me uncomfortable. I am very sad and hurt because of his death.

This, along with several other of his dreams, reveal conflicts of a nature that Kenneth may not have been aware of, conflicts he could become aware of were he to reflect on the content of his dreams.

Psychiatrist Robert Stickgold and his colleagues completed a study of dreams in amnesiacs revealing that amnesiacs dream about things they don't remember. The team trained twenty-seven volunteers to play the computer game Tetris. The participants included ten Tetris experts, twelve ordinary individuals, and five people with amnesia. The amnesiacs had to be retaught the game every time they played it. Seventeen of the participants reported dreaming about playing Tetris. Among those were three of the participants with amnesia. Despite not being conscious of any activities they had engaged in earlier that day, the information nonetheless still materialized in their dreams. This shows that dreams can at least sometimes be a window into the unconscious mind.

Is Love a Disposition?

The fact that love is not always consciously felt has led some thinkers to suggest that love is a disposition. This view is encapsulated in

received wisdom in the form of sayings like “He who loves will be conditioned to show it,” “If she loves you, she will eventually come around,” and “Love is an irresistible desire to be irresistibly desired.” A disposition is an attribute that normally leads to a particular kind of event or behavior in particular kinds of circumstances. A wine glass has the disposition to break when dropped on a marble countertop. A baby has the disposition to cry when famished. A narcissist has the disposition to have a grandiose sense of self. Dispositions are not emotions, but you can have a disposition to have certain consciously felt emotions in certain circumstances.

Personality traits are excellent examples of dispositions. Consider the big five of personality, a standard categorization of personality traits. A person with an extraverted personality is disposed to be talkative, have little social fear, be a good leader, say what he thinks, make new friends easily, and prefer company to alone time. Conscientious people are disposed to be strong-willed, work hard, plan work ahead, finish work on time, and keep their promises. Open-minded people are disposed to be curious and willing to appreciate new ideas and have a preference for novelty and creativity. Agreeable people are disposed to be compassionate and cooperative rather than suspicious and antagonistic toward others. Neurotic people are disposed to experience unpleasant emotions easily, be insecure, and second-guess themselves.

If love is a disposition, then it is a disposition to produce certain consciously felt emotions and behaviors in certain circumstances. For example, if Inga loves Carl, then she may get sweaty palms and a quickened heartbeat when she eyes Carl, and she may act caringly when they get together to study for the Graduate Record Exams.

If love is a disposition, it can be long lasting and needn't always be consciously felt. For example, someone in the grip of depression may still love her family even if she neither feels it nor shows it.

The heavy emptiness simply masks her love, so the disposition doesn't lead to the characteristic behavior in enabling circumstances. The dispositional account also allows for the possibility of miraculously discovering that you are in love and the possibility of being dead wrong in thinking that you were in love. In the first case, there may not have been adequate evidence for thinking that you were in love, because the disposition had not yet led to any noticeable behavior. In the second case, you may have misinterpreted certain behavior of yours as a sure sign that you were in love when it was really a sign of something else.

Love, however, cannot ultimately be a disposition. What motivates an account of love as a disposition would motivate a similar account of other emotions as dispositions. You can be angry with your ex, even when you are sweating over the SATs. You can fear redback spiders, even when you are relaxing in a cozy living room sipping green tea and reading a mystery novel. Anger and fear are nonetheless emotions, not dispositions.

Compare the case of love to hunger. When I am famished I have a disposition to gorge myself on empty carbs. I also have a disposition to be short-tempered if obstacles thwart my attempt to eat. But hunger is not a disposition. It is the foundation for a number of dispositions: irritability, hotheadedness, and pessimism. Likewise, love is the basis of myriads of dispositions, but it is not itself any of those dispositions.

Even when love is not consciously felt, it is instantiated in the nervous system in a number of different ways. One is in the form of emotional memories. Memories are stored in fragments in different regions of the brain. When you recall a memory, the hippocampus—the brain's main memory center—assists in putting together the fragments, sometimes correctly, sometimes incorrectly. Your memories are not as trustworthy as you may think. But even when you are

not retrieving a memory, the memory fragments are not simply sitting at the various locations of the brain waiting to be recalled. For weeks to years after the memory was first acquired, the hippocampus is busy reactivating and rehearsing the information. This happens when we reflect on past events. But it can also happen without our knowledge of it. Deep sleep and dream sleep are thought to be two periods during which memories are solidified through reactivation and rehearsal of stored information. The more often a memory is reactivated and rehearsed, the stronger it becomes. This may be why love memories can be so intense. Obsessing about your beloved can make the memories sturdier and more persistent.

In the case of emotional memories the neural networks that are formed by the brain between memory fragments are tied to the brain's fear center, the amygdala, as well as other neural regions involved in processing emotions. This is why retrieving a memory can often provoke fear or joy or disgust.

Unconscious love consists in many of these types of neural processes that transpire below conscious awareness. As with many other unconscious processes, unconscious love can be the basis of dispositions to act in particular ways in particular circumstances. If you suddenly act jittery in front of your long-term friend, this may be the outcome of unconscious neural processes.

7

HE'S JUST NOT THAT INTO YOU

AND OTHER IN-BETWEEN CASES
OF LOVE

Love can take time to ripen or die away, and it fluctuates dramatically in intensity. If you flip channels five minutes before the end of your beau's favorite show or make your next date night November 31, chances are you don't feel that special buzz in the heart of your tummy. Newlyweds vow that they will love each other forever, that their love will never change, that they will feel as they do at that very moment for all of eternity. But they are deluded. Lust and romantic love always fade. Love has faded when seven years into your marriage you suddenly feel you are in bed with a relative.

How do we account for shifts and changes in love? Can love transform into different kinds of love in the course of a relationship or does love come in degrees? If being in love is like being pregnant, then it doesn't come in degrees. You cannot be a little bit pregnant. You are either pregnant or not. So if the notion of love is like that of pregnancy, then love is either on or off.

There is no doubt that there are different species of love and that one kind can turn into a different one. Your passionate love for your perky young girlfriend may transform into a kind of friendship love over the years. However, in my humble opinion, citing transitions from one type of love to another does not explain all shifts and changes in our loving attitudes. Love is not an on/off affair; it's a (fluctuating) point on a continuum rather than a member of a set of poles. In this respect, the concept is more like that of gender, not a binary, but a spectrum.

Prototypes

The first piece of evidence for rejecting the view that love is an on-off affair comes from prototype theory. Prototype theory as developed by the American psychologist Eleanor Rosch and colleagues (1977) is a theory of concepts that deviates from a traditional view that takes concepts to be analyzable in terms of necessary and sufficient conditions. For example, for a number to be even it is necessary and sufficient that it is divisible by the number two. The traditional theory works well for mathematical concepts but is not super-promising for most non-mathematical concepts.

Prototype theory is an extension of twentieth-century Austrian philosopher Ludwig Wittgenstein's well-known theory of family resemblance. Wittgenstein's legendary example is that of a game. Wittgenstein thought that no definition could be given of the concept of a game that would capture both professional sports and child's play. As a result of this, he suggested that something is a game if it resembles the most evident types of games closely enough—for example, soccer games, Trivial Pursuit, or hide-and-seek.

Rosch and her colleagues suggested a theory of how we classify the world around us. On their view, the world doesn't come divided into categories. Our basic understanding of the world, which is necessary for all decision making and action, consists in placing things into categories. As they put it:

The world consists of a virtually infinite number of discriminably different stimuli. One of the most basic functions of all organisms is the cutting up of the environment into classifications by which non-identical stimuli can be treated as equivalent. ("Classification of Real-World Objects," p. 383)

We use prototypes to understand the world, they say. Prototypes are things that most clearly fall under a given concept according to our ordinary understanding of things. Soccer games are prototypes for *game*, chairs and sofas are prototypes for *furniture*, robins are prototypes for *birds*, and men are prototypes for *humans* (unfortunately).

Whether something falls under the concept is determined by its resemblance to the prototype. Because loveseats resemble sofas, they fall under the category *furniture*.

Whether something falls under a concept is a matter of degree. For example, when 200 Americans were asked to rank items of furniture in terms of how good they were as examples, the following items scored highest: chair/sofa, couch/table, easy chair, dresser, rocking chair, coffee table, rocker, love seat, chest of drawers, desk, and bed. At the very end of the list we find things like rug, pillow, wastebasket, sewing machine, stove, refrigerator, and telephone. The latter items do not fall under the concept of furniture to a very high degree.

Most items belong to more than one category. For example, a telephone can be both an electrical device and a piece of furniture, even if it's more of an electrical device than it is a piece of furniture. A prototype concept does not have determinate boundaries. There are items that definitely belong to a category and items that definitely do not. A chair clearly belongs to *furniture*; a gorilla clearly does not. But some items do not clearly belong to a category or clearly not belong to the category. For example, there is no determinate answer to the question of whether a walk-in closet or a carpet does or does not belong to the category *furniture*.

When Rosch and her colleagues developed prototype theory, they were proposing the theory as a view of how we categorize concrete things in our external environments. It was not initially intended as a way of understanding emotions or other psychological states. But the

theory naturally extends to emotions. As sadness, fear, anger, disgust, surprise, and joy are basic, universal emotions, they are among the best examples of the prototype concept *emotion*.

We can also treat each example of the prototype concept *emotion* as its own prototype. If we were to conduct an experiment on how people understand the notion of anger, we might have an actor behave in different ways in front of a group of participants and ask them to rate how closely the actor's behavior resembles anger on a scale from one to ten. If the actor yells and swears, we can hypothesize that participants would take that to be an excellent example of anger. If he merely displays a negative facial expression, this may not exemplify anger to a very high degree.

We carried out an experiment like this with the prototype concepts in *love*, *lust*, *compassionate love*, and *true love*. We asked participants to determine to what degree scenes from well-known movies exemplified each of the four categories. We asked them to rate each scene on a scale from one to ten in terms of how good an example it was of each of the categories. We also asked them whether they had seen the movie. The scenes displayed included among others a sex scene from *Fatal Attraction*, the breakfast scene of Billy and Ted in *Kramer vs. Kramer*, Lori speaking to her husband Dave on the phone in the Baltimore convent in *First Do No Harm*, the final scene of Seth and Maggie after Maggie's accident in *City of Angels*, the fake orgasm scene from *When Harry Met Sally*, an email scene from *You've Got Mail*, Holly finding one of Gerry's messages in *PS. I Love You*, the scene in which Jonah and Sam return for the backpack and meet Annie in *Sleepless in Seattle*, and Jesse and Céline walking around in the streets of Vienna in *Before Sunrise*.

Unsurprisingly, parent-child scenes scored highest in the compassionate love category, and sex scenes scored highest in the lust category. Somewhat more surprisingly, typical Hollywood scenes, such as

the final meeting between Annie and Sam in *Sleepless in Seattle*, and tragic love scenes, such as the final encounter between Seth and Maggie in *City of Angels*, scored highest for both the categories *in love* and *true love*. Deep-felt connections between spouses, such as Lori's phone conversation with Dave in *First Do No Harm*, scored significantly lower in both of these categories. It made no significant difference whether participants reported having seen the movie or not.

The results suggest that the beginning phases of love relationships and tragic love, virtually identical to a Shakespearean tragedy, are prototypes of the categories *in love* and *true love*. The more our state of love resembles these phases of love, the more likely it is to be understood as an instance of *being in love* and *true love*.

"Love" Is Gradable

Though the Hollywood depiction of true love differs from the emotional state that exists between people in real romantic relationships, the way we perceive this central emotion does correctly reflect that love is not an on-off affair. Failing to realize this aspect of love is likely one of the main triggers of that gnawing anxiety that most people experience in their romantic relationships. For example, in the beginning phases of a relationship, you may obsess about how your new crush feels about you, whether he or she is in love with you, whether you should say the "L" word, when you should say it, who should say it first, or what it means if one of you says it. During later phases you may be consumed with disturbing thoughts about whether your mate is still in love with you, whether she will fall out of love with you, whether she has fallen in love with others, whether she loves you more than her career, or why she can't fully commit to you if she says she adores you.

If love is not an on-off affair, most of these qualms are partially grounded in a failure to pay attention to the degree nature of love. How we use the word “love” gives us some valuable insights into the concept. “Love,” as it is used in the English language, is a gradable verb. Gradable verbs and adjectives are those verbs and adjectives that have a meaning that changes from context to context, that combine with degree modifiers and that give rise to indeterminate cases.

Familiar examples are “tiny,” “rich,” “expensive,” and “bald.” One apartment can be tinier than another, an apartment that would be tiny if located in Beverly Hills may be quite sizable if located in Manhattan, and some apartments are neither clearly tiny nor not tiny. They are sort of in-between.

“Love” works in quite the same way. This becomes apparent in constructions, such as “I love you more than anything else in the world,” “I love both of my children equally,” “I am a tiny bit in love with him,” “Henry is more in love with Rose now than he was last year,” “Jacky would have been more in love with Wolfgang if he hadn’t cheated on her,” “she doesn’t love me as much as I would like her to,” “Carly loves Paris more now than when they first got together,” and “He loves him a lot for someone with an avoidant attachment style.”

If the word “love” in the English language picks out the relation of love, which we have good reasons to believe, then being in love is not an on-off affair. It is not like being pregnant, an unequivocal degree-less state. You can love one person more than another, you can love one woman a lot and another woman a bit less, you can love someone too much and you can be in that in-between phase where you neither definitely love someone nor do not love them. Likewise, an instance of love can be intense with respect to one person but not with respect to another. A consequence of this is that if someone sincerely denies that he loves you, he doesn’t love you in the full

sense, but he may still have some affectionate feelings for you that may be somewhere amid that fuzzy gray zone. These lessons are good to remember when we think about our own or others' emotional states. Love comes in degrees. There is no right degree of love. You can always love someone more or less than you do.

Saying "I love you" is informative, but there are limits to how much information the three sappy words can provide. The meaning of "love" is fixed in context. You may correctly say that you love someone in a low-stakes context and yet deny it in a high-stakes context. For example, you may give your childhood friend a big hug and say, "I love you," when she brings you Ding Dongs, your favorite treat. But if a lot more hung on your saying the three words, you may have said nothing at all.

The idea that love comes in degrees gives us a way of understanding affection constituted by both conscious and unconscious elements. Suppose Lucy is aware that the sheer presence of her friend Angus has begun to make her feel more elated than usual, she is aware that her heart beats like a jungle drum when she is out with her comrades, but she is unaware that Angus is the underlying cause of this. When Lucy logs into her email account in the wee hours, she has an urge to scan her inbox to see if Angus wrote her before plowing through the other 230 tiresome messages. She usually feels inclined to chat with Angus rather than with her other pals at festivities, and occasionally she begins to giggle for no reason. She has taken no notice of these revealing changes in her behavior. Susan, her (best friend), has noticed a transformation in Lucy's behavior and has asked her whether she has a crush on Angus. Lucy explicitly and adamantly denies it. Angus has been her pal since kindergarten.

"Nonsense," she says with naïve straight-faced honesty. "Of course, I don't have the hots for him."

She insists that while she thinks Angus is a handsome and darling guy that even her granny would approve of, she merely has brotherly feelings for him. In a case like this we can correctly say that Lucy is in love with Angus to some extent, even though she denies it and doesn't have the full conscious experience of being in love. But we would not want to say that the extent to which Lucy is in love with Angus is the same as it would have been had she had the full conscious experience of affection. Lucy is in an in-between state that resembles the prototype well enough for it to be appropriate to say that Lucy is in love, but she is not in love to the degree she would be if her love had been fully consciously manifested.

The idea that there are many shades of affection also helps us apprehend love that has grown old. When you and your significant other have settled down in suburbia with two kids, an SUV, a permanently half-full laundry basket, and a trip to Walmart and a movie from Netflix being the most exciting parts of your weekend, your love life doesn't quite feel the same anymore. People prefer to say that the love that once filled their hearts has become a different kind of a love, a warmer, deeper, and more caring kind of love. This may be true in some cases. In other cases, love simply isn't manifested to the same degree. A couple's love for each other at four in the morning in their bourgeois hell when the new baby wails and needs a clean diaper for the third time that night needn't be warmer, deeper, and more caring than the love they felt when they were walking down the aisle—free, bohemian, their whole life ahead of them.

Bearing in mind that love comes in degrees can shed light on the mystery surrounding the fact that your hotshot hubby can insist that he loves you one day, then shamelessly cheat on you the next and pack his suitcases and walk away a week later, leaving only a few pieces of clothes behind like the Wicked Witch of the West. He may

be a shady sort of fellow but he wasn't necessarily being dishonest when he declared that he loved you. He may not even have changed his feelings toward you. He may simply have been fooled into thinking, or realized, that he loves his long-limbed, anorexic secretary more than he loves you.

He's Just Not That into You

Despite the title of this chapter, my thoughts about in-between cases of love are only in partial agreement with those expressed by Greg Behrendt, a writer and stand-up comedian, and Liz Tuccillo, an American writer and actress, in their bestseller *He's Just Not That into You* (2004). The message they want you to get is that if it isn't obvious that a guy likes you, he probably doesn't like you very much.

This is indeed good advice and, if taken well, will save girls and boys from breaking into pieces like the snowman in Chris Buck and Jennifer Lee's *Frozen*. If your beau is not calling, not asking you out, not getting back to you, does that mean that he is just not that into you? Yes, it could mean that. It certainly means that if five days in advance, he tells you he can't make your birthday party because he is not in the mood.

But there can be countless other reasons why he is not texting, calling, or serenading you. He may have an avoidant attachment style or suffer from crippling love shyness. He may have an anxious attachment style that led him to suffer from a ghastly breakup and consequently made him swear never to get into a romantic relationship again. Or he may not have fully realized on a conscious level that he really is into you.

Of course, when a man (or woman) doesn't call or doesn't seem interested, the right thing to do is not to declare your unconditional

love for him in an eternal torrent of text messages. Nor should you show up at his door at seven P.M. with takeout from the local Chinese joint and three romantic comedies, or tell him that his nurture giver who he sometimes refers to as “mother” squashed his emotional brain, or make an appointment with a marriage counselor and tell him that your counselor has promised you two tickets for a Yankees practice game, which have to be picked up PDQ. Don’t be a blood-sucking temptress. The right thing to do in all of these cases is to stay in touch with him (or her) as a friend, if possible, but leave your romantic and sexual advances out of it. If—abracadabra—his avoidant attachment style one day is miraculously cured or his unconscious love for you inexplicably becomes consciously manifested, you will hear from him.

Another point of disagreement between my position and the view humorously defended by Behrendt and Tuccillo lies in the different meanings we ascribe to the phrase “He’s just not that into you.” Behrendt and Tuccillo take that phrase to be roughly equivalent to “He’s not interested in you.” They do not give much weight to the in-between cases of love, despite the fact that these are the most common instances of love.

Friends with benefits ideally both enjoy occasional casual sex without expecting fidelity from the other person. Sometimes friends with benefits are not all that into each other, but it doesn’t mean they have no affection for each other. People in functional open relationships probably are not romantically obsessed with each other. If they were, the thought of the other person having sex with someone else would be unbearable. But while they are not infatuated with each other, they may still love each other to some extent.

Even those who prefer exclusivity can be in a state of love that doesn’t quite fit the prototypical profile for love. The first time Zoe

kissed Brandon three years ago was a true case of ambivalent love. A couple of days later she sent me the following letter:

Fuck and shit and heaven and hell!! He looked amazing, smelled fantastic, we flirted, talked and sat on a bench under the stars... and we kissed!! It sent chills up and down my spine, it was wonderful... the whole street rotated and disappeared. It was so intimate, intriguing and intense... some people walking by commented on our kissing and said that we looked so cute and romantic together and that we should continue kissing! Then we went to the Art Bar and squeezed in next to a bunch of others in one of the green booths. I could feel his body press against mine. He is so unbelievably gorgeous and so cute with his brown curls, and completely extraverted, he talked with everyone... When it got close to one-thirty I told him I had to leave. But we went for a walk and ended up on some stairs leading up to an apartment complex. I was sitting on top of him, and we continued kissing for a long time (nothing else), until I told him that I really had to go...

I still feel almost as light as air, I can't think straight, can't get any work done, can't get the image of his smile out of my mind. It was an unforgettable night. I will probably still think about it when I am eighty, tell you about it again and again when we are in a nursing home together, until you tell me to shut up... But there are also some alarms going off. When we were sitting in the bar, he said that he really liked me but that he didn't love me. I thought it was an absolutely insane thing to say. I told him. We don't even know each other, so of course he doesn't love me.

He is so controlling, and appears so self-confident, arrogant almost, like he owns the world, owns me even. It turns me on. But I don't know if he could manipulate me. I already feel he has

some mysterious power over me. Yesterday he wrote in a text that he had read my latest book review, he said he was impressed that I had made the comparison to DeLillo sound like an insult. I didn't reply. It's his turn to wait for me. Maybe I won't write him back until Monday. I think he is a bit of a player. He likes the chase, so I don't think being a little distant will make him less interested! But it's totally unbelievable that I can feel this way. He enralls me. Who would have thought? It bears no resemblance to anything I have ever experienced. I will never feel this way again about anyone else, never, never, never... But I constantly think about how this will end. I am in a precarious state. I could really fall for this guy, I mean really fall, but I have to protect myself and my feelings. I don't think he is as cool about it all as he would like me to think.

Things changed drastically after that. Brandon became more distant between their meetings but more intense and less ambivalent when they finally met. And Zoe? She fell hard for Brandon. Did she ever fall!

Love and Ambivalence

In-between cases of love can lead to ambivalence. Being somewhat in love with your significant other, you might regularly wonder whether to stay or to go. So you end up staying, not because you have decided that staying is the best thing to do, but because you are already there and haven't yet made up your mind. Although these intermediate emotions can lead to ambivalence, they are not the same as ambivalence.

The philosopher Harry Frankfurt holds that ambivalence is an incoherence of desires. You are drawn toward an object and away

from it simultaneously. But not just any incoherence of desires will do. Desires can trump each other. When I am stewing over where to dine, I might have a weak desire to go to the upscale pizza place and a much stronger desire to go to the new raw vegan joint. So I decide on the raw venue. Although the two desires are incoherent, my will is not divided, so I am not ambivalent.

Desires can also temporarily vanish into the mental abyss as a result of weakness of the will. I might have a strong desire to lose five pounds in two weeks but suddenly find myself devouring a gigantic lump of gooey chocolate cake weighing in at a hefty 980 calories. Only later do I remember that I had vowed to lose five pounds. Although my desire for wallowing in the richness of the delectable treat and my desire to lose five pounds in two weeks are incoherent, I am not ambivalent. I acted more or less automatically.

In order for incoherent desires to amount to ambivalence, they must result in an inner conflict about what to do. Ambivalence lies in the failure to form a will to pursue a course of action that one fully embraces. I may be conflicted about whether or not to gorge myself on the slice, ogling it with gluttonous eyes and a growling stomach for what seems like an eternity. I cannot decide which of my desires should determine my course of action. I cannot decide whether I prefer one or the other alternative. I do not know how to rank them.

Ambivalence can also stem from a failure to fully identify with a possible course of action. I might be utterly disgusted about my desire to consume more than 900 calories in one sitting. Even if I give in to my desire, I may be so disgusted that I spurn my chosen course of action. I fail to identify with it. In that case there is no ambivalence. If, on the other hand, I don't know whether I can identify with a possible course of action, I cannot get to the point of wholeheartedly ranking my alternatives. If I nonetheless choose to act, my

action is not wholehearted. Ambivalence about my choice lingers at least until the action is complete and cannot be undone.

Ambivalence resolves once I decide that one of my desires is worthy of being acted on or that both alternatives truly are equally worthy of pursuit, or once obstacles rule out one course of action. If my bull terrier devours the lump of cake before I can make up my mind, my inner conflict dissipates, not because I have come to the conclusion that losing weight is worthier of pursuit than consuming the mouth-watering treat, but because one course of action is no longer available. With only one course of action untaken, I am no longer divided. As I know the piece of cake is gone, I cannot will to eat it.

In-between cases of love frequently lead to ambivalence, because the lukewarm or partly suppressed emotions are accompanied by weak desires or desires we are not fully conscious of. The ambivalence can stem from not knowing whether you can identify with a possible course of action or from failing to rank incoherent alternatives. A pedophile may feel utterly disgusted by his desire to have sex with children. But if the disgust is not quite sufficient for him to reject a possible course of action as something he disvalues, he may be unable to form the will not to act or he may act on the desire, not because he thinks having sex with a child is a worthy course of action, but because he cannot control himself. Ambivalence may linger until the action cannot be undone.

Failure to rank desires accompanying in-between cases of love are perhaps more common. Alan, the non-committal fellow Zoe was dating, didn't know whether or not to begin a casual encounter with Zoe. He may have had a craving to be with her but also a desire not to make things complicated. Failure to rank these desires might have prevented him from forming a will to act, until he finally gave in to his desire to be with her. But residual ambivalence may have

lingered even then. His choice of an entirely casual relationship with Zoe may have reflected a compromise on his part. His chosen course of action then would not have been wholehearted because he wouldn't have fully identified with it. Of course, it is also possible that he did fully identify with a casual relationship, that he considered that kind of romantic connection worthier of pursuit than any other type of romance.

Many thinkers in moral philosophy think a divided will makes a person less virtuous than someone with a clear ranking of alternatives that he or she identifies with. A wholehearted ranking of alternatives is an ethical ideal. It is allegedly what people should aim at.

Damasio's patient David who could not reach a decision about his next appointment and continued to deliberate is maybe the extreme case of an ambivalent person who is prevented from approaching the ethical ideal for persons. Whenever we act without wholeheartedly embracing what we are doing, we are failing as people. Someone with a broken heart who settles for a partner she doesn't really love and who experiences her chosen path as a loss is not fully embracing her choice; so as a person she is a failure. If she can overcome that feeling and come to fully value her choice all things considered, she will transform into an honorable person.

In my opinion, this prevalent view is a teeny bit too drastic. Consider Billy who dates two men Odin and Elliott. Odin and Elliott know about each other but would prefer if Billy would make a choice and settle down with one of them. Billy, however, is radically ambivalent. He is in love with both men, and he adores Odin's sense of humor, their all-night conversations, and their daylong shopping trips. But he really appreciates Elliott's literary interest, their trips to museums on Sundays, and the fact that they both like to cook complicated exotic food and sip red wine all afternoon. Billy is determined to make a choice but he thinks that he will only be able to do

the right thing by continuing to date both guys. In this case we might say that Billy is being true to himself because he is embracing his ambivalence and is determined to make a wholehearted choice by exploring his options. Whether he is being fair to Odin and Elliott is a different question. Billy may never be able to shake his ambivalence. He may never be able to make a choice he can wholeheartedly embrace. He might even have been a better person had he not been ambivalent. But there is no doubt that he is being true to himself, which is at least one virtue among many others.

There may also be ambivalence that doesn't matter to the wholeness of a person. If you choose pistachio ice cream rather than the caramel variety for desert without wholeheartedly embracing your choice because you love both flavors equally, you are unlikely to be less whole or admirable as a person.

8

I'D DO ANYTHING FOR LOVE (BUT I WON'T DO THAT)

LOVE AND SEX

Non-Monogamous Love as In-Between Cases

What people single out as perfect instances of being in love and true love do not reflect the love that exists in real love relationships. In a survey conducted by *AOL Living* and *Woman's Day* in 2009, 52 percent of the women surveyed said that their husbands were not their soulmates, 72 percent said they had considered leaving their husbands at some point, more than 50 percent said that they were either bored in bed or couldn't remember the last time they had sex, 60 percent rarely or never had date nights, more than 50 percent wished their husbands either made more money or made more time for them, and nearly 50 percent said their husbands had changed for the worse since they got married. Despite all this, 71 percent of the women surveyed expected to be married to their spouse for the rest of their life.

Are women who are not fully happy in their marriages masochists? Probably not. In my opinion, it's far more likely that they simply have realized that if you choose to enter a long-term monogamous relationship, you are in some sense settling. This view remains controversial but it is supported by the facts. We used to say that the bliss of a relationship will last for seven years. However, the Pew Research Center and the National Survey of Families and Households report that couples become bored and unhappy sooner than was

expected—more like three years into their relationship than seven. This suggests that in a long-term monogamous bourgeois relationship, love doesn't continue to grow. It continues to ripen until it falls off the tree and rots on the ground. When love ripens, it doesn't feel the same; most of the time it doesn't feel like anything at all, because love in its ripening phases is an in-between state of love.

During phases when you don't feel head-over-heels in love with your partner, you are capable of falling in love with someone else. A bulk of the population acts on these feelings. It's estimated that up to 60 percent of all married individuals in the United States will cheat on their spouse at some point during their marriage. In 70 percent of those cases the spouse never finds out about the extramarital affair. And 80 percent of those who do catch on forgive their double-timing spouse and move on.

Community-wide long-term monogamy may be largely the result of lack of opportunity. When the nuclear family played a much more central role in society, cheating occurred less frequently. The woman would stay at home caring for the children and expect her man home for dinner. The nuclear family structure would conveniently constrain natural urges. Now many men and women live in freer relationships. They do their own thing and only join each other late at night in bed or on special date nights. This gives both parties an opportunity to meet and socialize with potential sex partners, and given free access to other sex partners, they often don't let the opportunity pass them by.

Refusing to embrace the mendacity of a bourgeois lifestyle, some simply drop the standard of monogamy altogether. The philosophy couple Carrie Jenkins and Jonathan Ichikawa from University of British Columbia got married in May 2011. Three months later they co-authored the *Off Topic Magazine* article "On Being the Only Ones," in which they publicly announced that their marriage was

non-monogamous. In an interview with New APPS' Catarina Dutilh Novaes, Jenkins explains why they decided to be open about the status of their bohemian lifestyle: "Part of our motivation for being open about our relationship style is that we hope to avoid some of the kinds of disapproval that we might expect if we were seen with other partners and mistaken for cheaters." They want to avoid people judging them as non-serious, cheaters, or people with a defective moral character. As they say in the article, it is common to think of a non-monogamous liaison as not being a real relationship. "I think we should see other people' is widely used in effect to mean 'I want to terminate this relationship,'" they say. Jenkins and Ichikawa don't want people to think of their relationship in this way. "Most of all, we don't want people attributing to us immorality, immaturity, fickleness, or other serious character failings."

As Jenkins points out in the interview, an open relationship is different from a polyamorous relationship. An open relationship consists of two people in a serious relationship who allow each other to engage in sexual or romantic short-term or non-serious relationships with other people, according to a set of rules established by the couple. A polyamorous relationship consists of more than two people. For example, Krista may be married to Marc, Marc may be in a committed, long-term romantic relationship with Julia, whereas Krista is in a committed, long-term romantic relationship with Michael and her childhood friend Michelle. "Polyamory' is used to refer to the policy and/or practice of openness to multiple intimate *loving* relationships," says Jenkins. "It's a bit different from the kind of non-monogamy we're exploring (at least, at the moment). We aren't looking for romantic love outside our marriage; extra-marital dating and friends-with-benefits relationships are more our thing."

The term "polyamory" originated as a neologism in the 1990s in two unrelated contexts. In 1990 the term was used in connection

with a neo-pagan workshop. In this context the term referred to the multiplicity of love associated with pantheism. A year later, in 1991, a group of young people created a mailing list aimed at discussing the topic of polyamory. The people on the list believed that it was valid and worthwhile to maintain intimate, loving relationships with more than one person. Though the term “polyamory” is a rather recent invention, polyamory is not an isolated phenomenon. There are more than half a million polyamorous families in America.

Some couples want sexual experience outside of a traditional relationship but want to experience it together. These couples are known as “swingers.” I recently conducted an interview with Anna Miller from 4 Real Swingers for Lovesicklove.com. According to Miller, the swinging lifestyle is not “a Band-Aid for a marriage” that doesn’t work. She encourages people to think carefully before they have a taste of this lifestyle. “Overall the decision needs to be made by both partners, and both partners need to be completely comfortable about whatever their next step is. There is no ‘un-ringing the bell’ with this type of decision,” she says. There are great differences between a swinger relationship and an open relationship, according to Miller. “Swinging is all about sharing your partner’s experience with them. Being able to be ‘open’ about your desires, feelings, and then being able to act upon them as a couple, together,” says Miller. She is careful to point out that swinging is not an everything-goes deal. “Swingers can have several rules that fit best for them as a couple. Some swingers only ‘soft play’ where they may do oral, or maybe even same room sex with other couples with only touching allowed. Some swingers have a no oral and/or no kissing rule as they may feel that it’s too intimate. Some other swinging couples may have no rules what-so-ever, just as long as they are together.” An open relationship is different, according to Miller. “An open relationship might be a couple where the female is free to leave the house on her own

and pick up guys and girls, and have sexual relations with them, and maybe the guy can as well."

While open, polyamorous, and swinger relationships are all kinds of open relationships, the people who engage in them recognize that love, or at least some forms of love, is not an on-off affair. Even when talking about a particular kind of love, we rarely love just one person. Some love more than one person sexually, some love more than one person romantically, and most everyone loves more than one person compassionately. Judging from what the individuals who engage in these lifestyles say, the love directed toward the different individuals may be of the same kind and may vary only in strength. Jenkins and Ichikawa would choose each other even if their open lifestyle did not work out. "We could happily have a monogamous relationship if we ever felt that non-monogamy wasn't working out. Non-monogamy is a bonus, but not a deal-breaker," Jenkins says. Miller, too, makes clear that the romantic and sexual desire she has for her husband Bruce is greater than the love she has for other people. "Bruce and I have been in the lifestyle for 16+ years, longer than we have been married, which is 12+ years now," she says. "If I were to describe our marriage, I would say we are completely and hopelessly in love with each other!"

Romantic love occasionally is directed exclusively toward just one person. When it is, it typically is because the lovers are barred from being together. One of history's most famous everlasting love affairs is that between Abélard and Héloïse, who were prevented from being together by Héloïse's uncle. In twelfth-century France, Peter Abélard, a French Aristotelian philosopher and one of the greatest thinkers of the twelfth century, persuaded Canon Fulbert, a priest of the Cathedral of Notre Dame in Paris, to hire him as the mentor of his achingly beautiful and highly gifted niece, Héloïse. After Abélard had moved into Fulbert's home, Abélard and Héloïse

became lovers. Though they tried to keep their relationship a secret, Fulbert eventually found out and was furious. He demanded the lovers be physically separated. But their separation did not make them love each other any less; on the contrary, “The very sundering of our bodies served but to link our souls closer together; the plentitude of the love which was denied to us inflamed us more than ever,” Héloïse wrote in a letter. And shortly after their separation Héloïse told Abelard that she was pregnant. Héloïse stayed with Abélard’s sister until her son Astrolabe was born.

Longing for his lover, Abélard proposed to Fulbert that they have a secret marriage, and Fulbert agreed. But Héloïse turned down the proposal. She was keenly aware of the opportunities Abélard would be passing up if he tied himself to a family. However, Abélard insisted and shortly after the birth of their son Astrolabe, they returned to Paris to get married secretly. They separated immediately after the wedding, seeing each other only in rare private moments, in order to give the impression that they were no longer involved. But Fulbert was determined to ruin Abélard’s career and refused to keep the marriage a secret. When his niece denied the marriage, he beat her. To keep Héloïse safe, Abélard took her to the convent at Argenteuil. Héloïse’s uncle thought that Abélard had forced her to become a nun and arranged for his relatives to take revenge in the most gruesome fashion. One night while Abélard was asleep in a secret room in his lodgings, the relatives ambushed him and cut off his penis.

After his tragic injury Abélard could not stay in Paris without being subject to extreme ridicule. He decided to become a monk, and he convinced Héloïse to join the cloister. She agreed out of love for her husband. She wanted no other man. But Abélard’s and Héloïse’s love affair continued in the form of letters, which were later collected in book form. In a letter to Abélard, Héloïse wrote:

You know, beloved, as the whole world knows, how much I have lost in you, how at one wretched stroke of fortune that supreme act of flagrant treachery robbed me of my very self in robbing me of you; and how my sorrow for my loss is nothing compared with what I feel for the manner in which I lost you.

After many years Héloïse and Abélard briefly reunited at a ceremony in Paris but never saw each other again afterward. Their love affair nonetheless went on for twenty years. Six hundred years after their death Josephine Bonaparte ordered that the remains of Abélard and Héloïse be entombed together at Père Lachaise cemetery in Paris.

Love and Casual Sex

If love can be meaningfully assessed in terms of rationality and irrationality, one cannot help but wonder what to say about sex. In my opinion, there is little doubt that sex can be unjustified in almost exactly the same circumstances as love. If having sex with someone is likely to subtract from your well-being, then the activity is unjustified or irrational. Continuing to have sex with a heedlessly selfish partner who is concerned only about his or her own gratification is irrational. But when sex is unlikely to subtract from your well-being, it is perfectly permissible as long as the encounter is consensual. There is nothing inherently bad about casual flings, loveless hook-ups, and friends-with-benefits arrangements. Whether or not love or attachment is involved does not matter. This lenient attitude toward sex is also known as “the casual view.” Although there is religious opposition to this position, the view is widely accepted outside of religious circles.

However, in his 2002 article “Two Views of Sexual Ethics: Promiscuity, Pedophilia, and Rape” philosopher David Benatar offers a grim challenge for those of us who believe it. He argues that the prevalent opinion that casual sex is without moral significance is squarely at odds with the widely held view that rape and pedophilia are intolerable moral violations.

Benatar contrasts the casual view with what he calls the “significant view.” This is the view that sex is wrong whenever it does not involve love of a kind that fits the act, as well as a certain level of understanding of the relationship between sex and love. Benatar believes that the popularity of sex with no strings attached suggests that many people agree with the casual view that sex is morally unproblematic and not something that needs to involve a special kind of love and understanding. But most of us who think casual sex is innocuous also happen to believe that pedophilia and rape are unspeakable, insufferable crimes—moral decadences of the nastiest kind. This, however, is an inconsistent set of views, says Benatar.

The significant view can explain why pedophilia and rape are inexcusable, egregious moral crimes. A sexual act between a child and an adult, though it may involve love, does not involve the right kind of love—it does not involve a kind of love that fits the act. Even if there happened to be instances of pedophilia involving the right kind of love, those instances would not involve the right kind of understanding, because children are unable to grasp the ramifications of sex. But, Benatar says, the casual view cannot explain the extreme moral wrongness of pedophilia and rape. Sexual acts between adults and children need not physically hurt the child. Depending on the age of the youngster and the nature of the interaction, it may not hurt her emotionally either. Pedophilia does involve a level of force or coercion but, Benatar argues, that by itself need not be troublesome. We coerce or force kids in a number of ways. We force them

to go to bed at a particular hour, to eat their green beans, to learn their multiplication facts, and to practice before their violin lessons. So the advocates of the casual view cannot appeal to coercion to explain why pedophilia is as grotesquely nasty as it is.

Nor can they appeal to a lack of informed consent. There are things that children can consent to and things they can't consent to. Children can consent to eat a Ding Dong but not to buy real estate, because the latter, but not the former, requires a type of understanding that a child is not capable of. But, Benatar argues, on the casual view, sex is not significant. It is not something that involves a great level of understanding. If, however, sex is not significant and does not involve a great level of understanding, then it ought to be something that a child can consent to.

The casual view does not imply that rape is morally acceptable. Rape involves force by someone who does not have the authority, or right, to exert that force. However, says Benatar, advocates of the casual view cannot explain why rape is an ultimate sin. It would be bad to force your neighbor to eat an apple. But it wouldn't be an extreme moral violation and certainly not one that's on a par with raping her. Because the casual view does not attach significance to sex, its cheerleaders therefore cannot appeal to force to account for why being raped is so much worse than being forced to consume a piece of fruit.

Benatar's argument may appear tendentious but it's not. It presents a genuine dilemma. On the one hand, it appears that the casual view of sex ought to be right. On the other hand, it seems that rape and pedophilia are among the worst and most foul sins one could commit. Yet if Benatar is right, then we cannot have it both ways. You cannot rise above the fray.

There are two ways to save the casual view from embarrassment. One turns on the level of discomfort involved in being forced to engage in sexual activity. While sexual pleasure can be unbelievably

good, displeasure or disgust during sex is at the other extreme. It is unbelievably bad. So, advocates of the casual view could say that while there is nothing inherently wrong with sex between two consenting adults, there is something wrong with forcing another person to engage in sexual activity because it involves a form of displeasure or disgust that is exceptionally bad. This would allow the advocates of the casual view to explain why rape is so much worse than many other activities involving force. They can appeal to similar considerations to explain why pedophilia is profoundly unacceptable. The pedophile cannot predict in advance what sort of grave consequences having sex with the child will have, and because a sexual encounter between a child and an adult may involve extreme displeasure, it is wrong to coerce a child to engage in that kind of activity.

Another way out for the advocate of the casual view would be to appeal to the special relation that obtains between a person and his or her body. It's a relation that is similar to ownership but more intimate; we might call it "super-ownership." You own your car but you super-own your body. Even if I don't care about my car and lend it out to strangers all the time, it would be wrong for you to paint it behind my back or coerce me to hand you my car keys. Violations of ownership are wrong. Likewise, violations of super-ownerships are very wrong. So using another person's body without consent is profoundly morally unacceptable. This could account for why rape or other forms of sex that involve force or coercion and a lack of consent are extreme moral wrongs, even if the casual view is right.

The Other Dimension of Sex

If attachment is a special kind of love, as I argued in a previous chapter, that might explain its positive influence on sexual experience.

In a study published in the October 2013 issue of *Frontiers in Psychology* Janina Nielsen, a social psychologist, and her colleagues found that sex may be less satisfying for people who experience very intense sexual arousal, because they are unable to bond with their sex partner. The team examined several parameters of sexual experience in people with the extraordinary sensory condition known as synesthesia. Synesthesia, as you will recall, is an unusual binding of experiences or mental images. For example, music-color synesthetes hear musical notes as colored and lexical-gustatory synesthetes see or hear words as having particular tastes.

About 2 percent of the population experience colors and flavors or other sensory qualities during orgasm and sexual arousal. The experienced colors and flavors are seemingly unrelated to the sexual act. That is, they are not sensory qualities of bodily fluids, bright clothing, or the bedroom background music but are experienced as a kind of extra vision or mental imagery triggered by touching, caressing, petting, or climax.

Sexual synesthesia can lead to a sexual trance, an altered state of consciousness. The descriptions of it resemble reports from people who experience synesthesia while under the influence of hallucinogenic drugs, such as LSD and magic mushrooms. One form of altered consciousness during drug intoxication is an experience of rapidly changing colors, shapes, and textures in response to music.

A sexual trance may be experienced as an enormously intense physical and psychological state of arousal, involving total absorption. An immensely pleasurable state of arousal, however, does not necessarily make sex feel maximally satisfying. Donald Mosher, a researcher at the University of Connecticut, has proposed that two other factors are equally important for great sex. One is role enactment. Role enactment may be thought of as a kind of sexual identity that is acted upon during the sexual act. Role enactment is present

when you act out your naughty inner fantasies—for example, your inner dominatrix or your inner Medusa. The other factor is an aspect of attachment manifested in an engagement with the sexual partner, including the sexual partner's responses to what you do and to your sexual arousal and the ability to have a shared experience. Maximum sexual satisfaction requires equilibrium among all three factors: sexual trance, role enactment, and partner engagement.

In their study of sexual experiences in synesthetes, Nielsen and her colleagues found that synesthetes experienced the most intense forms of sexual trance and therefore had very profound physical and psychological experiences during sex. But surprisingly perhaps, these exceptionally enjoyable states of arousal did not make the synesthetes rate their experiences as more satisfying than the ordinary folks. On average, synesthetes were significantly less satisfied after sex than people without the condition.

The researchers suggest that the decreased satisfaction in synesthetes may be due to the fact that they are unable to fully share their sexual experiences with partners who have more earthly experiences. This, in turn, may lead to a lack of engagement with the partner and a feeling of isolation. These findings highlight the importance of attachment for everyone, regardless of the nature of their sensory experiences. A sexual trance may be a goal worth pursuing but maximum sexual satisfaction cannot be achieved without role enactment and partner attachment and engagement.

9

UN-BREAK MY HEART

HOW TO FALL OUT OF LOVE

There is nothing sadder in this life than to watch someone you love walk away after he has left you. To watch the distance between your two bodies expand until there is nothing left but empty space...and silence.

This is a legendary quote from the movie *Someone like You*. Anyone who has experienced an unnerving breakup or suffered from a heart-rending love obsession can sympathize with this. You are hurting. Your nerves are hanging on by a thread and you sleepwalk through day after day of sorrow. You are either seething or sobbing in despair. Sleep may come fitfully and when it comes it is rife with ambiguous dreams of the one who isn't there. You see absences everywhere—the absence of your loved one.

In his 1943 essay *Being and Nothingness*, the French philosopher Jean-Paul Sartre describes how he enters a café to meet Pierre. As he enters, he discovers Pierre's absence from his usual place. He is not merely thinking that Pierre is absent. He is seeing Pierre's absence, the nothingness, the way we see a person, a cup of tea or a bouquet of flowers. He is not simply experiencing the café scenery; he is seeing the scenery without Pierre in it. Sartre describes the absence as haunting the café, because visual experiences and visual images are far more likely to send you into a frenzy than thoughts are. Watching a video of a grease-clogged sewer pipe triggers more disgust than merely thinking about the concept in the abstract. This is why seeing the absence of a loved one who will never again be yours can be so

emotionally disturbing. It's a trigger of the demonic feeling of longing combined with disgust, sadness, and anger.

The time immediately following the shock and bewilderment of a breakup and the time of a mad, feverish love obsession are driven by an overflow of stress chemicals released by your brain in response to the trauma that is happening to you. Your emotions run wild. As Douglas Adams's fictional detective Dirk Gently would put it, you are in a state of mind that would make even Mother Teresa spank babies.

How can you get rid of those appalling feelings? Some folks react to the dark loneliness in the aftermath of a breakup by racing into a rebound relationship. But that rarely works. Throwing yourself into the arms of a new sweetie pie to ease the pain of losing a loved one is like eating antipasti to ease your stomachache after too many servings of Fettuccine Alfredo. You cannot be yourself and open up to a new person if you are still longing for your ex. Your behavior is bound to be crisis-ridden and unreasonable. So, by rushing into a new relationship, you set yourself up for more disappointment and deranging pain.

Nor will it work to beg, threaten, or coerce your lover to come back. Don't promise him that you will change. Don't attempt to convince him how wonderful your relationship was or what a great mistake he is making. The more you push, the more he will want to be apart from you. Besides, you cannot convince someone to love you. It takes two to embark on or rekindle a romance. Your behavior (whatever you do) is not going to cast a spell on your ex and miraculously—abracadabra—make him change his mind. Leave him alone, dispose of his spare jeans, his sullied toothbrush, and other physical reminders, and tackle your pain by axing your love for him. Fall out of love!

Can you willfully fall out of love with a person you adore? The answer is "yes." You can deliberately chuck out love that has outstayed

its welcome just as you can intentionally get rid of other unwarranted emotions and rise above comrades in the throes of indignation. In most cases you cannot do so in a direct manner. You can choose to get a Heineken from the fridge. But if you are truly afraid or angry, you cannot simply decide to have more peaceful emotions. Taking a deep breath or counting out loud may reduce some forms of anger but not the kind that is brewing in your subconscious mind. Even if you cannot choose your emotions the way you choose food from a menu, however, you can gain control over your emotions in a more piecemeal fashion—even without popping pills or downing a bottle of cheap booze.

Never Mind Searching for Who You Are. Search for the Person You Aspire to Be

Many of our thoughts, urges, and memories are outside of our conscious awareness, often because they are unacceptable, or unpleasant, or in conflict with each other. As Freud noticed, we repress poignant memories and passions in order to avoid feeling them or expressing them in insidious ways or in order to comply with the Christian morality and existential banality that accompany a bourgeois lifestyle. Repression serves as a temporary shield from the most difficult challenges of life. But eventually the repressed memories and passions burst through the shield and manifest themselves as physical or psychological problems that may seem to have no apparent cause.

Although Freud was dismissive of the concept of an unconscious emotion and drew a stark contrast between reason and passion, between the Apollonian and the Dionysian, he taught us an important lesson. We can actively change our unconscious

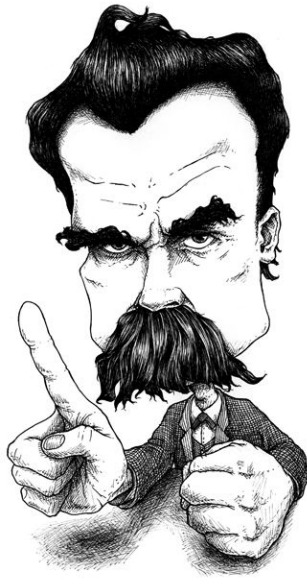
mental states and the behavioral patterns they give rise to by solving the conflicts that once led us to repress the contents they convey.

As pointed out by psychiatrists Arthur Harry Chapman and Miriam Chapman-Santana, Freud borrowed many of his concepts from the nineteenth-century continental philosopher Friedrich Nietzsche. Nietzsche published more than thirty years before Freud. He had ideas that were very similar to Freud's: the concepts of the unconscious, of repression of uncomfortable feelings, that the unconscious drives behavior, that dreams represent the unconscious, that we tend to blame others for our own misery.

A main difference between Nietzsche's and Freud's psychologies is that Freud seemed to believe in the possibility of a change in personality. Nietzsche didn't believe in the possibility of a true change in personality. You cannot exert control over your fate. But while you have been born as a particular person, you may nonetheless have gone down the wrong path and may need guidance finding your way back to your roots.

Furthermore, Freud recognizes two fundamental drives: a pleasure drive, and an aggressive drive, the latter rising from the death instinct. Nietzsche recognizes a plethora of different instinctive drives: drives toward sex, toward cruelty, and toward knowledge. He thought the tendency of all drives was to try to dominate the others; in that sense, every drive aims for power, for preeminent position. Every individual's psyche is made up of a bundle of competing drives, and they struggle at the individual level for dominance. This is analogous to what we see at the interpersonal and societal level.

It may seem that Nietzsche's philosophy would tell us always to choose positions of power over love. The legendary love affair between



Friedrich Nietzsche (1844–1900), the father of the unconscious and the will to power. Though Nietzsche was born in the German Confederation, he canceled his citizenship in 1869 and was officially stateless for the rest of his life. He was deeply conflicted about his identity. In a revision of a passage from his book *Ecce Homo*, he writes, "I am a pure-blooded Polish nobleman, without a single drop of bad blood, certainly not German blood." Nietzsche's mental breakdown and subsequent death remain a mystery. Seeing a horse being beaten by its owner from his Turin apartment, Nietzsche apparently ran to the horse and wrapped his arms around its neck, in an apparent attempt to protect it. After that he was declared insane. Some believe the cause was syphilis, others that it was dementia, and yet others that he was faking it. © Gareth Southwell.

King Edward VII and Wallis Simpson would seem to be deeply irrational from this point of view. Edward fell in love with the American-born Wallis Simpson in 1931. At the time Edward was in a long term-relationship with Lady Thelma Furness, and Wallis was married to Englishman Ernest Simpson, a member of the Baltic Exchange. This was her second marriage. Edward and Wallis remained infatuated with each other for the next few years, and in 1934 Edward left Thelma, Wallis left her husband, and the two began a wild, intoxicating, rose-tinted romance. When the king, Edward's father, died in 1936, Edward became King of England, and Wallis soon showed up as a regular at the royal dinners. The divorce proceedings were still pending. King Edward knew there was no way the public would ever accept a divorced American as the king's bride, But he still intended to marry Wallis. In November 1936, Edward informed the prime minister, Stanley Baldwin, that that there would be no coronation ceremony, as he had decided to abdicate the throne. Edward married Wallis Simpson in June 1937. Finding themselves exiled from Britain and shunned by the royal family, the couple immigrated to France.

It may seem that for Nietzsche, but not for Freud, Edward's decision to abdicate the throne strides against human nature. After all, Edward gave up a position of power to be with the woman he loved. He had to move away from the country he was born to rule and live as a relatively ordinary man.

However, for Nietzsche, this case would just mean that the love drive got the upper hand over the drive for social respectability. More, for Nietzsche, power is not simply power over others. It is, first and foremost, power over yourself, your thoughts, and those of your emotions that are products of a corrupt society. Edward's decision to be himself rather than follow the wishes of the royal family and the public may well have been one of strength and power. For Nietzsche,

power is self-perfection, and power can only arise from self-love and authenticity. “Du sollst werden, der du bist,” wrote Nietzsche. “You must become who you are.”

Becoming who you are does not mean paging yourself over the intercom without disguising your voice or ending all conversations by shoving your index fingers in your ears and shouting “la la la la” very loudly. It means being in control of your thoughts and emotions. It means controlling your emotions before they control you. According to Nietzsche, emotions and desires are the most powerful driving forces in the human world. However, emotions must be tamed through discipline; otherwise they can be destructive to our well-being and the safety of others.



I'm not listening! I can't hear you! © Gareth Southwell.

For Nietzsche, we can discipline our emotions through “sublimation.” Sublimation is a redirection of the forces of our primitive irrational impulses into cultural or intellectual activities. Throughout much of his scholarship Nietzsche was obsessed with criticizing pompous intellectuals, particularly academic philosophers who boastfully portray their ontological theories as the real and only truth, but he had high regard for artistic activities and less haughty and more pragmatic intellectual pursuits. We can tame our emotions by engaging in such activities. Tamed emotions are rational emotions that drive us toward constructive results. We should not destroy our desires and emotions but get a leash on them. Repression or suppression of rational emotions in the traditional Christian sense is unhealthy. A superwoman (Der Übermensch) must accept her own nature, not hide it away in her unconscious brain. Taming our irrational emotions, the emotions that make us someone we are not, is our duty.

Psychoanalysis and Talk Therapy

Since Freud, the traditional method for bringing the content of the unconscious to the surface and making peace with our bottled-up sexual desires has been psychoanalysis. The aim of psychoanalysis is to foster constructive ways to cope with libidinal and destructive urges as well as socially learned control mechanisms that prevent the urges from influencing behavior in ways that are unacceptable to society.

Due to the influence of the learned control mechanisms, our implicit urges and the content of our unconscious thoughts are repressed and prevented from surfacing, except in a transmuted form—in indecipherable dreams, slips of the tongue, free associations in clinical settings—or in the form of repetitive behavior, emotional overreactions,

or neuroses. Analyses of dreams, free associations, repetitive behavior patterns, emotional overreactions, and neuroses were the building blocks of the psychoanalytic method. These vehicles were thought to contain the content of the unconscious mind in symbolic form. They held the key to the unconscious.

Part of Freud's cure of Elizabeth von R, who had transformed her love for her brother-in-law into physical pain, was to make her realize that the fact that she had fallen ill in these circumstances testified to her good moral character. Freud also made use of a rather unconventional method. One day he had contacted Elizabeth's mother to ask her if it would be acceptable for Elizabeth to marry her brother-in-law after her sister's death. Elizabeth was furious when she found out, and her leg pain immediately intensified. However, eventually Elizabeth's pain went away and she went on to marry someone else.

The manifest content of dreams, repetitive behavior, emotional overreactions, neurotic thoughts, and free associations are symbols of the true or "latent" contents of the unconscious mind. The latent contents of the unconscious are inaccessible to consciousness but can become accessible through psychoanalysis, which aims at making the patient aware of the unresolved, formerly repressed conflicts and helping her solve her issues, for example, by channeling sexual drives into socially accepted activities and work (sublimation).

While psychoanalysis still plays a role in talk-therapeutic approaches, there is now less focus on Oedipal family patterns, buried psychosexual traumas, and repressed feelings too disgraceful to subsist in a prissy, sex-fearing society. The objective of talk-therapeutic methods is to dig deep and unearth past emotional traumas and lessen the heavy weight of the client's taxing past. If a client suffers from an anxiety disorder, her wounded soul is not simply healed with behavioral or cognitive therapy. Instead, the therapist digs into her childhood and relationship patterns with the aim of uncovering the source of her

distress. Once the client is able to consciously associate a cause with her troubles, the symptoms sometimes vanish entirely. In other cases the cause must be discussed and analyzed in multiple sessions. Sometimes cognitive or behavioral methods are used subsequently to lessen symptoms. Suppressing psychological issues is believed to be less detrimental once the client has understood the connection between them and their underlying cause.

Emotional Regulation and Avoidance Behavior

Psychoanalysis and talk therapy are effective approaches in resolving old emotional conflicts. Cognitive-behavioral therapy is a different kind of treatment that seeks to sever connections between poignant memories of past events and negative emotion processing without aiming at illuminating the cause of the distress. The mind-probing techniques of cognitive-behavioral therapy can also be thought of as emotional regulation. Emotional regulation is not about counting to ten or taking a deep breath when everything goes wrong and the only machine at the gym you have any patience for is the vending machine. It's about taming destructive thoughts and emotions buried under layers of repressed memory.

While you cannot access the subconscious directly, you can gain access to it via the ghosts knocking on your cerebral door, via the manifest signs and symptoms to which it gives rise: emotional overreactions, repetitive behavioral patterns, or psychological disorders. Unconscious thoughts and emotions do not always manifest themselves as psychological disorders. For example, implicit biases against women, black, or trans* people do not normally induce psychological disorders. But in the presence of a trigger, they will produce behavior that can be recognized and cognitively processed. Joking about

a black person's gray matter, asking a trans* woman whether she is ever confused about which restroom to go to, or hiring a woman on account of the way she fills out her pants are signs of an implicit bias against blacks, trans* people, or the female gender. Begging your gal to spend more time with you or relentlessly scrutinizing your inbox and voicemail for her messages is, except perhaps in the very beginning phases of a relationship, a sign that things are a little off and asymmetric between you.

It's the symptoms of our unconscious destructive emotions and thoughts that hold the key to recovery. One of the main signs that we have unresolved emotional conflicts is avoidance behavior. Relationships hangups may lead you to shun intimacy. Arachnophobia may cause you to avoid the outdoors or camping. And a recent breakup may make you keep away from reminders of your ex-partner.

The reason we shy away from activities associated with our unresolved emotional skirmishes is that they can trigger old memories and associated ghastly emotions.

Sometimes a scent, a taste, or a sound can trigger a long-gone memory. Marcel Proust captures this well in the famous Madeleine episode in his *In Search of Lost Time*:

No sooner had the warm liquid mixed with the crumbs touched my palate than a shudder ran through me and I stopped, intent upon the extraordinary thing that was happening to me. An exquisite pleasure had invaded my senses, something isolated, detached, with no suggestion of its origin. And at once the vicissitudes of life had become indifferent to me, its disasters innocuous, its brevity illusory—this new sensation having had on me the effect which love has of filling me with a precious essence; or rather this essence was not in me it was me. . . . Whence did it come? What did it mean? How could I seize and apprehend it? . . . And

suddenly the memory revealed itself. The taste was that of the little piece of Madeleine which on Sunday mornings at Combray (because on those mornings I did not go out before mass), when I went to say good morning to her in her bedroom, my aunt Léonie used to give me, dipping it first in her own cup of tea or tisane. The sight of the little Madeleine had recalled nothing to my mind before I tasted it (Vol. 1, 45–50).

Imagine that you driving down Lindell Boulevard in St. Louis, a quiet city street, late at night. There are no cars on the road. You are singing along to Katy Perry's "Roar" that is blasting from the loudspeakers. Two more blocks and you are home in your cozy apartment, where you will have some hot tea and watch *After Sunrise*, which has just been released on DVD. As you cross the intersection at Taylor, you suddenly see the headlights of a car coming toward you on your left, dauntingly close. Adrenaline is shooting through your veins. You yank the steering wheel to the right and hammer your foot down on the brakes, praying that you can avoid the inevitable. But it's too late. You are not armed with Carrie-style telekinetic. As in slow motion you hear tires skidding, metal screeching, glass shattering, and a scream in the distance, which turns out to be your own. The airbags squeeze the little air you have left in you out of your lungs. Then everything turns dark. When you wake up in the hospital, you remember all too vividly what happened. A nurse tells you that you were lucky: a concussion, a cracked collarbone, a broken rib and a whiplash.

"Good thing you were wearing your seatbelt," she says cheerfully. "You will be out of here in a couple of days."

As you relive the accident over and over the following days, your body fills with adrenaline. You are shaking, sweating, crying. The minutiae of the accident stand out gaudily, as if a 3D movie were

playing in your head. You see the headlights, the metal blue paint of the approaching car just before metal meets metal. Katy Perry's "Roar" is still blasting in your head. Over the following months your broken bones heal and your memories of the fatal day begin to fade. But sometimes they flare up. Street intersections, Katy Perry songs, metal-blue automobiles, and even just driving at night traumatize you. But eventually your memories become firmly buried in deep regions of your brain and you are almost back to normal. Even decades later, however, it takes just a few lines of "Roar" or the burned smell of tires skidding over asphalt to make the whole sequence run vividly through your mind again, triggering a release of all the stress chemicals.

As you will recall, one prevalent theory about how memories are stored claims that the hippocampus plays and replays information, and that the continuous reiteration generates proteins that are deposited at the synapses between neurons. These proteins make it more likely for neurons to communicate with each other. There is, however, an exception to the general principle that information has to be replayed for it to get stored for the long term. A single intense emotional event, particularly one associated with fear or sadness, can lead to immediate memory storage. When we recall a negative memory it may continue to activate the amygdala, the brain's fear processing center, many years after the incident.

This came in handy for our ancestors who needed to couple fear with dangers to increase their chances of surviving. They needed to link memories of tigers and grizzly bears with fright so they would take the necessary precautions and avoid being eaten alive. But when it comes to invisible distresses of the kinds that can occur during the fiery first months of romantic relationships, during mindless love obsessions, and after unwanted breakups, we would probably be better off if our memories of the eliciting events were not quite so

vibrant, as such memories can continue to trigger fear processing for many years into the future.

Memories stored with neural connections to networks in the amygdala trigger fear on every recall. As fear can be harmful to the body, the brain takes steps to minimize it. Avoiding an ex-girlfriend, a street intersection, or a conference presentation because they trigger fear memories guards us against the ferocious effects of fear. Avoidance behavior is thus a protective mechanism that prevents fear processing and the associated detrimental stress chemicals that are activated by suffering. Avoidance, however, does not get rid of associations between memories and negative emotions. The neural connections between memories in the cerebral cortex and fear processing in the amygdala stay put. Memory retrieval and the formation of new memory associations are needed to sever unwanted neural connections and stifle emotional distress.

The Repetition Technique

Psychotherapeutic approaches to settling unresolved emotional conflicts seek to sever the connection between poignant memories and the unyielding fear, sadness, or anger they provoke. Talk therapy does this by illuminating the original cause of the distress. Cognitive-behavioral approaches, such as repetition technique, prolonged exposure therapy, and eye movement desensitization and reprocessing, seek to sever the connection between fearful memories and emotional distress without necessarily bringing the cause of the connection into conscious awareness.

In the 1960s, Ian Oswald of the University of Edinburgh conducted a study intended to test whether people could fall asleep under absurdly disturbing conditions. Three brave volunteers had their

eyelids taped, so their eyes would stay open. Flashing lights were placed in front of their teary vulnerable eyes. He also had electrodes attached to their legs that administered electric shocks. Finally, music was played at an excruciatingly high volume. All of the volunteers eventually fell asleep. Oswald concluded that their brains adapted to the repetitive and monotonous nature of the stimulants.

Despite the horrifically unethical nature of the study, Oswald did indeed uncover a fascinating feature of the brain. Repetitive stimulation, even if extremely intense, eventually makes the brain tune out. The brain simply ceases to take note of the stimulus, which enables it to engage in other activities.

When you learn new things, repetition helps wire your brain. It aids your brain in forming new connections between neurons. As the old saying has it, “practice makes perfect.” A famous study of London taxicab and bus drivers found that the regions of the brain used for memory and spatial navigation were significantly larger in the cab drivers than in bus drivers. The obvious reason for this was that the cab drivers had to remember the routes of the city, whereas the bus drivers were following a set route every day.

Despite the importance of repetition in learning, when a stimulus is merely triggering activity in neural networks that are already laid down, the brain prefers to spend its energy elsewhere. When exposed to a stimulus repeated over and over again, the brain reacts the way the brains of the bus drivers reacted. It does not make new neural connections or build new gray matter. Numbed to the dullness, it simply tunes out. We are familiar with this phenomenon when taking the same wearisome route to work every day. Though your brain keeps track of the road, most of its conscious focus is elsewhere. Last year’s vacation to Thailand, the Diane Rehm Show, and the upcoming PowerPoint presentation at work tumble gracelessly about in your mind. The part of the brain that is driving the car is on autopilot.

The brain's standard response to monotony can help us transcend emotional conflicts and eradicate old wounds. Instead of letting intrusive thoughts penetrate your awareness without being in control of them, take charge and force yourself to think the uncomfortable thoughts or expose yourself to physical reminders at regular intervals, even as you are cooking a beef stew for dinner. Over time your brain will get worn out and will stop paying attention to the stimuli that used to cause emotional distress. It will treat the wicked trigger the same way it would deal with the twenty-third replay of *Good Luck Charley* or *A Dog with a Blog*, the obnoxious yet endearing sitcoms your teen puts on as background noise while she is texting her BFF.

Prolonged Exposure Therapy

A somewhat related strategy for dealing with emotional pain and anxiety disorders is prolonged exposure therapy, which was developed by clinical psychologist Edna Foa. Like repetition therapy, prolonged exposure therapy requires confronting the worst horrors of your past. It forces you to muster a crusade against the things you have been deliberately avoiding out of deep-rooted fear. By requiring you to wrestle with your fears, this kind of therapy helps you sever the connection between adverse memories and fear processing. Although it could be a long challenging journey, you may reach a point at which you will no longer be reliving your past with an amalgamation of revulsion and regret.

Facing your most overwhelming darknesses requires exposing yourself to events that you have desperately attempted to shun after your ordeal. For example, if you went through an unnerving divorce, you may be avoiding cities, cars, restaurants, and bars that remind you of the breakup or the person you loved. Or take a more

classical case of posttraumatic stress disorder. A poor soul who is raped after a supposedly innocent romantic encounter because of her allegedly “deceitful” gender identity or her erotic clothing was “asking for it” may avoid or sabotage all future romantic liaisons.

Prolonged exposure therapy requires you to gradually move closer to scenarios that resemble the event that haunts you. For example, if a certain city reminds you of a trying breakup or divorce, start out by thinking about the city, then chat with people about it, finally visit it. This type of exposure can sever the neural connections between your negative memories and your fear-processing center (the amygdala), because the repeated exposure to the stimulus eventually gets old; the brain tunes out, so the relevant stimulus needn't invariably cause distress. Once you dissociate negative memories from fear processing, you will continue to perceive the memories as negative but they will no longer cause actual fear, sadness, or longing. You may finally experience a restored tranquility.

Oliver Burkeman, a *Guardian* columnist and the author of *The Antidote: Happiness for People Who Can't Stand Positive Thinking* recommends a version of exposure theory for dealing with fear. He advises his London-based readers to take the subway during rush hour and say the name of each station out loud just before the train arrives at the station. Embarrassing? Sure. It automatically triggers the shame reflex. But the lesson is for people to experience that doing something truly humiliating is not nearly as frightful as they thought it would be. Granted, they will have to suffer through some incredulous stares. But they won't get arrested or tackled to the ground by fellow train riders.

Or do something completely different and unorthodox (therapeutically): read Japanese bestselling author Haruki Murakami, for example, *Wind-Up Bird Chronicle*, *Kafka on the Shore*, or *1Q84*. The magic realism presented in these novels can be enormously uncomfortable

and unsettling. But that's the point. When you read about Toru descending to the bottom of a dry well, which leaves a blue-black mark on his cheek giving him miraculous healing powers, or Tokyo having two moons and being controlled by the Lille People emerging from the mouth of a dead goat, the characters accept this as reality, and so should you. The books are not primarily about modern-day Tokyo, the progressive movement of the 1960s and 1970s or the postwar economic growth spurt. They are about dry wells, healing powers, and little people ascending from dead goats. "What the real world is: that is a very difficult problem," Leader explains in *1Q84*. "What it is, is a metaphysical proposition. But this is the real world, there is no doubt about that. The pain one feels in this world is real pain. Deaths caused in this world are real deaths. Blood shed in this world is real blood. This is no imitation world, no imaginary world, no metaphysical world. I guarantee you that." Murakami's novels are enticing you to treat the unreal as real and to slowly come to accept it as such. When you accept the unacceptable, you might just happen to feel more at ease with your own uneasiness.

Barbara Rothbaum, director of the Trauma and Anxiety Recovery Program at Emory University School of Medicine in Atlanta, Georgia, who studied under Edna Foa, has a new take on prolonged exposure therapy. In the 1990s she founded the cooperation Virtually Better, Inc., a company dedicated to the use of virtual prolonged exposure to treat anxiety disorders, addictions and pain. During treatment, people are exposed to their fears using computer graphics and other stimuli to generate a partially virtual replica of the frightening events. A variety of stimuli can stir up deep-rooted fears. Sometimes it is a certain scent or smell, sometimes a sound, and sometimes a visual image of a scenario. In most cases it is a mixture of all the sensory stimuli that were present at the time of the disconcerting experiences. With virtual reality prolonged exposure, virtual reality can slowly

push you closer to a virtual imitation of the events that triggered your fear. Rothbaum's work has revealed that people can be equally frightened by traumatic events in real life and in virtual reality. But the fear slowly diminishes with repeated exposure, as the brain over time gets bored by the stimulus and tunes out.

The most common phobia is fear of public speaking. According to the National Institute of Mental Health, more than fifteen million American adults suffer from social phobias, which include fear of public speaking. Physical symptoms that accompany social phobia include blushing, profuse sweating, trembling, nausea, and difficulty talking. Fear of public speaking can lead to career damaging and self-destructive impulses, putting your worldly prospects in peril. Students may shy away from speaking in class and avoid signing up for presentations, college teachers may dread facing students in the classroom and eschew conferences where they would be expected to give a talk, and professionals may decline new job opportunities that would require them to speak in public. In his 2013 book *My Age of Anxiety: Fear, Hope, Dread, and the Search for Peace of Mind American*, author Scott Stossel, who is severely afflicted by this anxiety disorder, describes just how incapacitating it can be. He reports that he has frozen and run off stage in the midst of speaking gigs, walked out of exams, broken down at job interviews, and soiled his pants because of a nervous stomach. Though drugs can sometimes alleviate the most debilitating symptoms of the disorder (Stossel gets by on Xanax, Inderal, and vodka), they often have limited effects. And it isn't much fun presenting your deepest thoughts in an alcoholic haze (at least not for the audience). Virtual reality therapy may be a more promising long-term approach. In virtual reality, you can orchestrate a virtual environment that features an audience, a stage, and yourself appropriately placed on the stage addressing the audience. It's safe, because if you mess up, no one is really there to judge you.

Virtual reality therapy can be costly. If you don't live in Atlanta or a few other places that offer this form of therapy, you would have to travel to engage in it. In Atlanta, they do not take insurance cards. You are charged \$150 per session. In some cases, your insurance company may cover the cost but there may still be an out of pocket co-pay. Consequently, professional virtual-reality prolonged exposure therapy is not a live option for many people.

But you can still use the insight behind virtual reality prolonged exposure therapy. For example, if you are suffering from anxiety relating to a past breakup, you can expose yourself to reminders of your old flame. Pick a local restaurant where you had a perfect meal with your ex. If you can't think of a restaurant, choose another venue—a bar, a theater, a bowling alley, a skiing resort, an amusement park. If you never met locally or you have moved to another house since you got dumped, pick a suitable substitute. For example, if you had a romantic meal at a Chinese restaurant, dine at a Chinese restaurant. Dress up as if you were going on a date with your ex. Spend the same amount of time getting ready as you did at the beginning stages of your love affair. Have a meal at the restaurant alone. Eat the very food you gorged yourself on with your ex. This sort of exposure can help sever the connections between memories of your former love and distressing emotions through desensitization.

Another way to use virtual prolonged exposure therapy to treat lovesickness is to enter virtual reality games, such as *Second Life*, that allow you to expose yourself to situations akin to those that initially produced your agony. Be careful of this approach, however, as it might escalate your lovesickness, making it harder to keep your feet near the ground.

In their 2009 article "Virtual Life. An Actual Death," American author and artist Mark Stephen Meadows and philosopher Peter Ludlow tell the story of Carmen Herмосillo. Carmen died on August 10, 2008. The official cause of death was cardiac arrhythmia and lupus

erythematosus. But the authors tell a more gruesome story about how her death took place. It looked like suicide caused by intentional failure to take her heart medication. After a long history of online presence Carmen had joined Second Life, an impressive online, graphically based virtual world. After building a medieval French city on her private island Carmen became involved with Riz, an avatar in Second Life. The two of them got involved in “Gorean role play.” Gorean masters take slaves who are to serve them sexually. Carmen was Riz’s sex slave in their fictional world. Carmen would soon enough become madly obsessed with Riz. But one day Riz disappeared from Carmen’s fictional world. A couple of weeks later Carmen started deleting her online accounts and then apparently went off her heart medication. How could it be that Carmen, who had lived most of her adult life in a fictional world, did not see this coming?

Meadow and Ludlow note that Carmen had written about the dangers of virtual life on several earlier occasions. They quote her saying that women in virtual relationships on the virtual community The WELL “accepted the attention of the man simultaneously on several levels: Most importantly, they believed in the reality of his sign and invested it with meaning. They made love to his sign and there is no doubt that the relationship affected them and that they felt pain and distress when it ended badly. At the same time it appears that the man involved did not invest their signs with the same meaning.” The authors conclude that the reason Carmen failed to see her demise coming was that she wasn’t an outsider. She was “wrapped up in the drama and the dangers, and just as susceptible to mistaking the simulacrum for the real,” the authors say. Carmen mistook her love affair with Riz for the real thing. She thought he was emotionally invested in her as a person, when at best he was emotionally invested in her avatar. Carmen’s love for Riz was deeply irrational, a severe pathology that ended in suicide.

Eye Movement Desensitization and Reprocessing

Eye movement desensitization and reprocessing (EMDR) is a different kind of trauma therapy, which was developed by psychologist Francine Shapiro. On a stroll through a park she noticed that quick eye movements made her emotional distress in response to traumatic memories less severe. This led her to develop EMDR as a new form of therapy. EMDR consists in reprogramming the way you remember a stressful past while performing rapid eye movements. You can reprogram the way you remember a painful past event by retrieving the memory and deliberately associating it with a positive belief, “I am safe now. Anyone who ever lays a hand on me again is dead.” “I am wonderful, attractive, natural and untouched by the money-scavenging beauty-surgeons.” “I am not the reason for the decline of our civilization. I am a reason there is still some human dignity left.” “Maybe I am not tall and long-legged but at least I am perfectly comfortable on long-haul flights.” (Cognitive reprocessing is like reading a negative review of your book in reverse—a bad habit of mine. Get the bad stuff out of the way and end on a positive note.) The rapid eye movements consist in tracking an object that moves steadily from side to side. This could be a therapist’s finger. But a tennis match on television or your grandfather’s clock might also work.

After developing EMDR, Shapiro conducted a study of the method, comparing it to positive thinking therapy combined with writing exercises or visual imagery. Twenty-two volunteers with emotional distress participated in the study. It was found that EMDR was significantly more effective in reducing emotional distress and generating a positive attitude and self-confidence compared to the alternative.

No one knows exactly why EMDR works but a possible reason is that it mimics processes that go on during the REM (rapid eye movement) phase during sleep. This is the phase where most of our dreams take place. If dreams help secure memories, it is plausible that EMDR could likewise help make new connections between old memories and new affirmative beliefs.

Deep Relaxation and Meditation

There are many other ways to resolve emotional conflicts besides talk therapy and cognitive-behavioral therapy. Deep relaxation and meditation are pivotal parts of Buddhist and Indian yoga traditions. This type of mindfulness has long been known to help with psychological stress, anxiety disorders, and major depression. Since all three reflect an imbalance in brain chemistry, it would seem that relaxation techniques should be able to influence brain chemistry, and this is indeed what they do.

The sympathetic response to stress and fear consists in a rapid release of stress chemicals into the bloodstream, including cortisol, adrenaline, and noradrenaline. The reaction to fear is almost instantaneous, but shutting down the stress system takes more time. For people with anxiety disorders, the stress system never shuts down. Deep relaxation and meditation can help shut down the release of stress chemicals into the bloodstream simply by counteracting some of the effects of these chemicals. Stress chemicals send impulses to the sympathetic nervous system, which is responsible for keeping the body active and on edge. When the sympathetic nervous system is active, the opposite-functioning parasympathetic nervous system is inhibited.

Deep relaxation and meditation allow the parasympathetic nervous system to become active by down-regulating the sympathetic nervous system. What happens is that once the sympathetic nervous system shuts down, the inhibitory neurotransmitter gamma-amino butyric acid (GABA) no longer is prevented from acting on the GABA receptors that are present everywhere in the nervous system. GABA is the brain's own tranquilizer. It down-regulates the brain's electricity. When GABA is active, brain waves in the slow theta range (four to

seven Hertz) build up. While brain waves in the higher frequency range play an important role in concentration, communication, and problem solving, theta waves are central to maintaining a good balance in the brain's chemicals.

Deep relaxation and meditation thus work wonders against stress—and can even help dispel something as innocuous as the January blues—by slowing down your brain waves. This rejuvenates the brain's chemistry and leads to a calmer state of mind, even after the relaxation or meditation ends.

Don't know how to meditate? Set the timer for fifteen minutes and simply sit quietly. Your job is to just keep yourself company for that fifteen-minute shower of brain-soothing chemicals. See if you can feel your body downshift as time goes by.



Meditation can increase low-frequency brain wave activity, which results in a release of the neurotransmitter GABA, the brain's own tranquilizer. © Gareth Southwell.

Heartbreak and Placement Conditioning

You can also loosen the suffocating grip of the past by altering your environment. If you can't move to a different city or even just a new house, you can lessen your emotional distress by altering your surroundings. Regardless of whether your home reminds you of your ex or other distressing factors, try moving around furniture. Toss a colorful piece of cloth over the old chair your cats have used as a scratching board. Rearrange items in the kitchen, bathroom, and office. Put the toilet paper where it belongs and keep the toilet seat down. Find new hot himbos or bimbos to meet up with (hint: beauty is in the eye of the beholder).

The reason altering your surroundings may help you recuperate from heartbreak turns on a phenomenon called "placement conditioning." This phenomenon has been confirmed in the case of drug addiction. Heroin addicts who overdose often die because they take their normal dose of heroin in a new environment, or at a new time.

What explains this peculiar phenomenon is chemical conditioning. If a heroin addict always takes the dose of heroin at a specific time in a specific hangout with the same buddies, the brain will learn that these stimuli (room, time, people) equal a soon-to-come heroin dose. So the brain does everything it can to prepare the body for the venomous poison and counteract its detrimental effects. For example, as heroin slows breathing, the body might produce extra norepinephrine to speed up breathing. When the heroin addict suddenly takes his or her normal dose at a new time, in a new location, or with new people, the brain has not had a chance to prepare the body for the impending heroin dose. So the dose has a much greater impact on the body. The very same dose can be harmless in one environment and deadly in another.

Chances are that you have experienced a similar effect with alcohol. If you usually drink two glasses of Pinot Noir with dinner, it

is unlikely to affect you much, because your body will prepare for the wine by producing enzymes that help break down the alcohol around the time it is accustomed to receiving its evening wine. If, however, you suddenly sip two glasses of champagne at, say, a morning wedding reception, you are likely to feel the effects a great deal more because you aren't prepared; before your body can break down the alcohol, it needs to produce enzymes. The time lapse gives the alcohol a chance to enter the brain and cause intoxication.

What can we learn from this about emotional pain after a dismal dissolution of a romance? Well, suppose the heroin addict and his pals agree to quit their addiction. Quitting heroin can lead to enormously intense withdrawal symptoms: diarrhea, vomiting, anxiety, insomnia, and muscle and bone pain. But the withdrawal symptoms would be much worse in the old environment than in a new location, because in the old environment the brain prepares the body for a dose of the drug. It's expecting its arrival, and pumps your body full of chemicals that can counteract the dose. When the fix doesn't arrive, the cravings get stronger.

When you are in emotional pain and crave your ex (the drug), you are in the same situation as the heroin addict who suddenly quits his addiction. You experience withdrawal symptoms: the weighty sadness of deprivation, the agony upon awakening, and realizing that it wasn't a vicious dream. But the withdrawal symptoms will be more significant in your old environment. This is not simply because your old surroundings trigger painful memories of your former squeeze (though this may be a contributing factor) but rather because the brain still prepares you for your usual encounter with your former love—the fix. So the longing and the blistering pain will be harder to recover from in the old environment than in a new environment, regardless of whether your surroundings remind you directly of your lost love.

The Sinclair Method

A radical way to dispose of emotional pain and resolve emotional conflicts borrows from a proven method for quitting an alcohol addiction. Addiction to alcohol is one of the hardest dependences to quit. Researchers have been working for years to come up with a miracle cure. For many years the closest thing to a remedy for alcoholism or excessive binge drinking was rehab or Antabuse, which makes people hypersensitive to alcohol, followed by abstinence. Then came naltrexone. Naltrexone is an opiate antagonist. It binds to the same receptors as alcohol, heroine, morphine, and methadone. But unlike alcohol and drugs, it does not transmit a signal to the neighboring nerve cell. It merely blocks the receptor. Naltrexone is supposed to be able to cure an alcohol addiction by making the cravings for alcohol less significant. The brain slowly learns that when a molecule binds to the opiate receptor, nothing happens. That was the idea.

Naltrexone, however, does not work very well by itself. The reason is that the brain is too smart to be fooled by an antagonist. It “knows” very well that there is a difference between a blocked receptor and a receptor transmitting a signal. If the drug can’t trick your brain, it has no effect. But here is the amazing part of the story. Naltrexone turned out to work splendidly when alcohol addicts kept drinking. When they continue to drink while taking naltrexone, their brains learn that alcohol isn’t all that gratifying. It has little pleasure effect, except for the pleasure of the taste perhaps. The brain learns this because even when alcohol is present in the blood, the opiate antagonist blocks the receptor that alcohol normally binds to and that ordinarily is responsible for the feeling of relief and relaxation. This method of combining an antagonist with continued exposure to the drug is called “the Sinclair Method” after Dr. David Sinclair.

The Sinclair Method gives us some insight into what it takes to quit an addiction, including a love addiction. If you expose yourself to thoughts or physical reminders of your lost love while forcing yourself to identify the person's flaws or envisaging the person engaging in dishonorable behavior, you teach your brain that the presence of the person isn't all that pleasurable.

Or imagine other men or women being repelled by your ex. Rid your mind of sparkling traits that people might be charmed by. Everyone has some appalling qualities and mannerisms. Envisage your femme fatale in a disgraceful dating situation where she foolishly shows her true colors to a new lover, and imagine the new lover being shell-shocked by her cruel, depraved, or contrived behavior.

Or write a bitch list. List everything you can dig up that your despicable ex did that turned you into damaged goods. Jot down every flaw, imperfection, or weakness. Don't make excuses or let your jilted lover off the hook. Be real. Exactly how did your ex disappoint you? What was the most incredibly annoying or kitschy thing about him or her? For example: "He ogled big-breasted chicks when we were out and about." "My super controlled ex didn't want me to call her 'my girlfriend.'" "She had a serious issue with me identifying as a gender fluid bisexual." "He was a sex-obsessed narcissist, a slow-witted, forgettable loser." By associating negative thoughts with your former love, reminders of him or her will eventually stop producing a pleasant response, and with a bit of luck your emotional pain will be a thing of the past.

Out, Damned Spot: Using Soap to Wash Away Your Negative Feelings

Even simpler strategies for transcending emotional distress draw on readily available resources, such as bathing and showering. Showering

is, no doubt, the last thing on your mind when you feel downright miserable and dejected. It may seem like an excessive indulgence reserved for the lucky few without life-shattering sorrows dulled with Jack Daniels. As it turns out, however, when you feel absolutely unbelievably rotten, forcing yourself into the shower, or washing your hands, may be one of the best things you can do for yourself, according to a review in the October 2011 issue of *Current Directions in Psychological Science*.

Taking a bath, showering, or even just cleaning your hands with a wet wipe can mitigate your negativity, remove guilt about past actions, and prevent you from worrying that you made the wrong decision. In the studies reviewed, the researchers were measuring how participants were feeling and responding to situations and decisions without cleaning and after cleaning, and they found that washing literally can help wash away negativity, doubt, regret, and guilt. Exactly how washing can help remove negative thoughts is unclear.

It is well known that organizing, structuring, and tidying up can help unclutter the mind and remove stress. William James once said that “nothing is so fatiguing as the eternal hanging on of an uncompleted task” (“The Letters of William James,” Vol. 1, p. 249). The stress-inducing element of unfinished and intimidating tasks, cluttered rooms, and unorganized files may partially explain why systematizing and tidying up can help reduce stress. But washing your hands can help even when your hands aren’t dirty.

It is built into our cultural heritage that getting rid of dirt and mess can remove guilt. In the Bible, Pontius Pilate washed his hands after condemning Jesus to death, and Shakespeare’s Lady Macbeth hallucinated bloodstain on her hands after plotting King Duncan’s murder and desperately tried to wash off her guilt. The effect that washing can have on guilt is sometimes called “The Macbeth Effect.” But the results of washing are hardly something we have grown to

learn. Individuals with obsessive-compulsive disorder sometimes wash compulsively to ease their horrifically engulfing anxiety and obsession. These individuals somehow subconsciously translate their fears of long-gone events into a fear of germs, which vividly demonstrates the symbolic workings of the mind.

Freud, as you will recall, made the symbolic workings of the mind popular with his psychoanalytic theories. Although he might have attributed too many hidden sexual desires to his patients, his theories contained an important lesson. Feelings that are too difficult to deal with at a fully conscious level are easier dealt with in a symbolic form. Washing might play this role with respect to negative feelings and guilt. Literally washing off negative feelings and guilt may signal to the brain that the negative feelings and guilt are unwanted.

In the long run, washing instead of tackling negative feelings head-on is no doubt unhealthy. But, as a short-term remedy, it can work wonders. Psychologists Spike Lee and Norbert Swartz, who authored the review, warn against washing too much when you feel good. Just as washing can remove negative feelings, it may drastically reduce positive feelings. So if you finally feel fantastic, don't rinse off the bliss; just maybe skip the shower for a day or two.

10

HAPPINESS IS LOVE. FULL STOP

LOVE, MARRIAGE, AND THE
PURSUIT OF HAPPINESS

Nearly anyone you ask about his or her goal in life will say that it is to be happy. People may answer in roundabout ways: to become filthy rich, to see their children flourish, to undergo sex reassignment surgery, to receive the Nobel Prize in physics, to have their novel sit atop the *New York Times* bestseller list for four months, to know that they will be remembered long after they lie stiffened in a morgue. But these are not ultimate goals. They are means to the ultimate goal: happiness. Much has been written about heavenly aim and our never-ending quest for it. Aristotle equated happiness with flourishing, or well-being. Well-being, in Aristotle's sense, requires living a good life by objective measures.

The notion of well-being, however, is only one of many senses of "happiness." Psychological happiness is no doubt different from well-being. Happiness in this sense implies feeling happy—thriving with the exuberance of a shallow Ivy League college girl in a high-brow nightclub—whereas well-being does not. Feeling happy, however, is not sufficient for being happy, even in the psychological sense. As philosopher Dan Haybron argues in his 2008 book *The Pursuit of Unhappiness*, you can feel perfectly happy even if you are not. If you have deep unresolved emotional conflicts, you do not have a propensity to feel happy, and the propensity to feel happy is part of what it means to be happy in the psychological sense.

Life satisfaction, being satisfied with how your life is going, cannot be equated with happiness either. Life satisfaction, like meaningfulness,

often is influenced by cultural norms. You may be satisfied with your life if you live up to the norms of society. But you need not be happy if you do what the norms dictate. For example, you can be an unhappy businessman and still be satisfied with your life, because your success makes you feel that way.

Emotional Regulation as a Route to Happiness

Because happiness is not constituted only by how you feel but also by how you are likely to feel, the route to happiness requires resolving repressed or suppressed emotional conflicts. Regulating your emotions is essential to happiness. If you manage to feel happy by suppressing your love for your former lover without dealing with it, you are not happy. Nor can you be happy simply by engaging in pleasurable activities. An earth-shattering orgasm or the thrill of a roller coaster ride is a fleeting experience. Having these kinds of experiences can contribute to your happiness only if they can affect not only your momentary mood, but also your propensity to feel good.

Regulating your emotions is essential to happiness, but so are the activities you engage in. Some activities are likely to make you happier for a longer time than others. Meaningless sex with a stranger may make you happy for a few hours, whereas marrying the love of your life may make you happy for a few years.

Haybron thinks sheer unadulterated bodily pleasures, such as meaningless sex with a stranger, are too shallow to contribute to happiness, whereas a deep-felt connection with a spouse is profound enough to contribute to the total happiness of a person.

I don't think this is quite right, however. Meaningless sex with a stranger is too shallow to contribute to happiness, Haybron says, because it doesn't change your propensity to feel happy. I think, however,

that it is quite clear that bodily pleasures could change your propensity to feel happy. After an intense orgasm in the morning, you may be more likely to feel happy and be less likely to be exasperated when your boss throws a pile of work on your desk Friday afternoon. Granted, the propensity to feel happy caused by sheer bodily pleasures may not last long. But that is irrelevant. Your deep-felt connection with your spouse may change your propensity but it may not do so forever. If your spouse shamelessly runs off with a younger model three years after you tied the knot, the earlier deep-felt connection is no longer going to affect your propensity to feel happy.

As I see it, almost any kind of love, including sexual desire, can affect your propensity to feel happy and your propensity to feel unhappy. A deeply felt crush can make you feel differently about your monotone everyday activities. But when it ends, it can make you prone to feel unhappy about the same activities. Like love, happiness is not in most cases a lifelong state. It can be an ever so fleeting state of mind.

Negative Thinking as a Path to Happiness?

“So many tangles in life are ultimately hopeless that we have no appropriate sword other than laughter,” said Gordon Allport, an American psychologist and one of the founders of the study of personality (*The Person in Psychology*, p. 134). Scientists have studied the effects of mirthful laughter, positive thinking, and optimism on feelings of self-worth, mood disorders, and depression since the 1970s.

In his 2012 book *The Antidote: Happiness for People Who Can't Stand Positive Thinking*, British author and *Guardian* feature writer Oliver Burkeman takes issue with “the cult of optimism,” the convention that falling goo-goo ga-ga in love, configuring your mouth in

a phony smile and engaging in jovial laughter and positive thinking is a sure-fire path to happiness. Positive thinking is the problem, not the solution, Burkeman says. He believes people have come to trust that a “Don’t worry. Be happy” attitude toward life is the only route to contentment. People seem to be convinced that if you have negative thoughts and see your own limits, you cannot be happy. So to be happy we must set out on a journey that changes your mindset from negative and inhibited to enthusiastic, fervent, and animated. We are told to visualize our dreams and goals, eliminate the word “impossible” from our vocabulary, and put a big fabricated smile on our physiognomy. All that actually can lead to unhappiness, Burkeman says.

Negative thinking, in Burkeman’s sense, is not exactly the opposite of positive thinking. It involves turning toward our heartbreak, grief, sorrows, insecurities, flaws, and pessimism and finding ways of enduring those episodes by embracing them. We should acknowledge that because we are human, we sometimes fail. By admitting that we sometimes screw up and that some things really are impossible for us or are as inevitable as is death, we will feel more content.

Burkeman’s *Antidote* contains countless staggering insights. But it suits the situation to engage in a bit of negative thinking. Not forcing a positive attitude to life, as recommended by Burkeman, could have unintended consequences for psychological, physiological, and neurological functions. For example, there is evidence to suggest that a good laugh and a positive attitude can regulate distress. Lee Berk, an immunologist at Loma Linda University’s School of Allied Health and Medicine, has studied the effects of mirthful laughter and a positive mindset on the regulation of hormones since the 1980s. Berk and his colleagues found that a positive outlook could help the brain regulate the stress hormones cortisol and epinephrine. The team also discovered a link between a happy attitude and the production

of antibodies and endorphins, the body's natural painkillers. Even the expectation that something positive, entertaining, or funny is coming suffices to bring about worthy effects, reports Dr. Berk.

Burkeman takes his inspiration from a wide range of spiritual philosophies and practices, such as Hellenistic Stoicism, Zen Buddhism, and Memento Mori, philosophies and practices that often are said to focus on negative thinking. He takes these philosophies to support his negative path. "If you go back through the history of philosophy, spirituality, the Stoics of ancient Greece and Rome, the Buddhists, and then also linking up with contemporary approaches to psychology, you find something else, which is actually that trying to let those feelings be and not always struggling to stamp them out is a more fruitful alternative," he told Audie Cornish on *All Things Considered*, NPR on November 13, 2012.

Ascribing negative thinking to these indomitable practices, however, is—if not astute—then misleading. Though often parodied as apathetic, the Stoics thought of the goal of life as engaging in a process of rational decision-making. The Stoics' utmost virtues are rationality and self-sufficiency. Unruly passions, such as bodily pleasure, fear, lust, and distress, are "excessive impulses which are disobedient to reason" (Arius Didymus, 65A). They are to be dealt with accordingly. Though contemporaries of the Stoics often described them as men of stone, the Stoics did not shy away from pleasurable and gratifying feelings. Tranquil emotions and sentiments, such as joy, wonder, kindness, generosity, and warmth, were perfectly acceptable from their point of view. These more quiet emotions and sentiments are consistent with a rational mind and are not in any way excessive. They are a natural stretching or expansion of the soul.

Unlike Burkeman, the Stoics did not focus on negative thinking but on rational thinking and action. Extreme passions are things we

undergo. The calmer sentiments are results of things we do. Negative thinking is perfectly acceptable from a Stoic point of view, as long as it is something we do and not something that happens to us. But negative thinking is by no means a requirement, as far as the Stoics are concerned. What's important is that we don't let our passions take possession of our agency. It is in this sense that you ought to be "apathetic." You should be the owner of your agency. Being in control, however, does not rule out being a warm, generous, kind, and lovable person who has mostly positive thoughts.

So the Stoics advocated a path through life quite different from that defended by Burkeman. According to him "efforts that involve struggling very, very hard to achieve a specific emotional state" is counterproductive. But struggling to achieve a specific emotional state was exactly what the Stoics were encouraging. The Stoics considered it a part of life to struggle hard to achieve an emotional state void of outrageous and disgraceful passions but not void of tranquil delights of the soul, positive imagery or reasonable optimism. You should not go on a "character holiday" by getting in the grip of lust and obsessive love or by acting in ways that are out of character for you. You should temper your affective states to ensure that you remain in character.

In the end, what Burkeman has to offer isn't all that different from standard cognitive-behavioral therapeutic practices. The idea that we should accept negative feelings, thoughts, and experiences as essential aspects of life and not as something that must be avoided is a common theme of the philosophies behind cognitive-behavioral approaches. But cognitive behavioral approaches include the positive thinking methods Burkeman so strongly criticizes. As we have already seen, some cognitive-behavioral approaches to resolving unsettled emotional conflicts and soothing the passions seek to break the connection between memories and fear, worry and distress by

changing the way you think about past events. Cognitive processing therapy, for example, seeks to change your emotions and beliefs after a trauma or a series of upsetting events. When you go through distressing events, your beliefs about trust, control, and safety change. One of the main components of cognitive processing therapy is to compare your beliefs before and after your disturbing experiences. When successful, the method can help you alter your frame of mind. For example, you can reprogram the way you remember a stressful past event by associating the memory with more constructive beliefs, “It was not my fault that I was assaulted.” “I deserve to be with someone who doesn’t treat me as badly as my ex.” “I am an attractive and wonderful person.”

Marriage and Happiness

Regulating your emotions can be an important route to happiness. But is love itself a sure route to happiness? What about marriage? What about the promise “until death do us apart”? In the folklore, getting married is associated with happiness. The wedding is what many of us associate with marriage: an elegant white princess dress, a striking tuxedo, a wedding cake with cream-colored marzipan flowers, an extravagant buffet that tickles your fancy, and the devoted man or woman you are going to spend the rest of your life with. A wedding is something many people have dreamed about since they were little girls or boys. Then one day it is actually happening. You are engaged. You spend a year or more planning the minute details of the wedding, forgetting that there is a hereafter, a marriage to be maintained after the glorious event. After many car rides and champagne tastings you book the place for the reception, get custom-made clothing, find the ideal flowers, attend the bridal shower and the

bachelor and bachelorette parties, purchase the golden rings. The day finally arises. The beautician spends hours perfecting your makeup and hair. Bridesmaids and ushers are tiptoeing around you. Then it happens: “I, Rose, take you, Tiger, for my lawful husband, to have and to hold, from this day forward, for better, for worse, for richer, for poorer, in sickness and in health, until death do us part.” The happiest day of your life. A romantic smorgasbord. A few months later you wake up to the reality of dirty socks on the floor, foul-smelling dishes in the sink, livid voice messages from BooBear on your iPhone, and other crazily maddening events. It’s rough to enter the dream territory. Marriage is difficult, or at least it will be once the honeymoon phase is over. You cannot wrestle your hubby into submission. Marriage is not a condition; it is hard work.

Weddings may signal happiness but do marriages themselves make people happy despite the workload? Not according to recent studies. A 2006 study conducted by economists Alois Stutzer and Bruno Fray examined married people over the time span of seventeen years. The study showed that marriages do not make people happy. What is true is that happy people are more likely to get married than unhappy people. So, marriage may indeed signal happiness. But the marriage is not the cause of it. Quite the contrary. Statistically, happiness increases your chance of getting married. The researchers also found that some married couples are happier than others. How happy a married couple is depends in part on how they divide up the daily chores. Dividing up house chores equally or contentedly agreeing to how they should be divided tends to increase happiness in marriages, which indicates that the many months of preparing the wedding may be better spent discussing how everyday life is going to proceed once the glorious event and the blissful honeymoon phase are things of the past.

Love and Happiness

Unlike marriage, love seems to increase happiness significantly. This was the conclusion of a seventy-year longitudinal study of two socially different groups: 268 physically and mentally healthy Harvard college sophomores from the classes of 1939 through 1946, and a second cohort of 456 disadvantaged non-delinquent inner-city youths who grew up in Boston neighborhoods between 1940 and 1945. University president Arlen V. Bock, a Harvard doctor, took the initiative to do the study. Back in those days, doctors thought that physique, social standing, and a blissful childhood were the most accurate prognosticators of human flourishing. The men who were chosen for the study had what the team considered a “masculine body build”: significant muscle mass, narrow hips, and broad shoulders. The study participants were asked about masturbation and their thoughts on premarital sex. They were also measured for brow ridge, moles, penis function, and the hanging length of their scrotum. In 1947 the funding for the study was withdrawn. And the study progressed very slowly. In 1966 George E. Vaillant, an American psychiatrist and professor at Harvard Medical School, was put in charge of the study. He led the study for more than forty years. He also changed the direction. He followed the study participants’ success or failure in relationships, parenting, and job career. He also looked at whether the volunteers had any problem with substance abuse and how they handled the death of a family member. His conclusion was unequivocal: “The seventy-five years and twenty million dollars expended on the Grant Study points to a straightforward five-word conclusion: Happiness is love. Full stop” (“What Makes Us Happy, Revisited”).

Vaillant found that the ability to be intimate with another person was one of the strongest predictors of health and happiness. Intimacy



Happiness is Love. Full stop. © Gareth Southwell.

phobic and commitment phobic individuals were among the most unhappy and discontented individuals. But luckily these attachment patterns are changeable, and many study participants were able to alter these patterns at some point in their lifetime. Men who were disenchanted in their forties and fifties, having little luck in their love lives, and who in many cases had experienced failed marriages, were able to change their attachment style and find love and happiness in their sixties, seventies, and eighties.

It was also found that romantic love wasn't the only predictor of happiness. Other prognosticators included having close relationships with children, parents, siblings, friends, and colleagues. So romantic love is not the only route to happiness. Friendship love, companionate love, parental love, and attachment love can get you there as well.

Vaillant's conclusion that happiness is love is no doubt overly strong. The data do not quite support anything that extreme. For example, it wasn't shown that love as such is a route to happiness. Unrequited love, love of a verbally abusive partner, and obsessive love do not lead to happiness.

What then is the real predictor of happiness? The answer seems clear: wholehearted and reciprocated love for a caring and lovable

partner. Rational love leads to happiness. Irrational love does not. That is the real finding of the study. This is one of the reasons it is so important to regulate our emotions when they are harmful to us. We cannot achieve happiness while suffering from unrequited love, a love obsession, love for a malevolent person, or other inner turmoil.

SOMETIMES THE HEART WANTS WHAT IT WANTS

THE END

There is never a time or place for true love. It happens accidentally, in a heartbeat, in a single flashing, throbbing moment.

— SARAH DESSEN, *The Truth about Forever*

It is hard to deny that there is such a thing as love as felt, love as a conscious emotion. I have proposed a new view of love: love as a conscious emotion is an experience of a response of the body or mind to something or someone else. It involves a perception of changes in the body or mind, and a perception of the other. For this sort of perception to count as love as opposed to fear or anger or some other perceptual state, its phenomenology must fit one of the prototypes for love. It must possess a cluster of properties that are stereotypical for sexual desire, romantic love, or passionate love.

Your love interest, on the other hand, needn't possess any special attributes for you to love him or her (but don't start giggling the first time you get naked together). Even if your love turns out to be justified, you don't choose to love someone because you have a good reason to do so. As Woody Allen once said to *Time* magazine, "Sometimes the heart wants what it wants. There's no logic to it. You meet someone and you fall in love and that's that." Such was the case of Zoe, a woman at once too gullible and quixotic to understand or predict other people's intentions. There was no logic to her falling in love with Brandon, an unattainable preppy too full of himself for his

own good, a smug blue-blazer boy born into a world of privilege. There was a causal explanation beneath Zoe's affection but no rationality.

Unrequited love is a form of irrational love. Unjustified or irrational love is love that does not fit the beloved or love that misrepresents emotion-relevant properties—the properties that sustain your love for the beloved. Love of a person for her disrespect and disdain is irrational. Projecting god-like idealizations onto our partners need not be unreasonable from our own point of view but love fueled by fantasy is unjustified.

Over-idealization of cities is found in people with the Paris syndrome. The Paris syndrome is a condition that causes Japanese tourists to have a nervous breakdown while in Paris. A dozen tourists suffer from this syndrome every year. The Japanese embassy has a twenty-four hour hotline for people who suffer from this condition. It is believed that the syndrome is a kind of severe culture shock that arises when people who have over-idealized the city discover its true nature. They suffer from a kind of heartbreak, as reality crushes their love. Their love, of course, was unjustified.

Treating love as assessable for rationality flies in the face of theories of love that take love to be a singling out of a person for her value as a human being. These latter approaches must render all love rational, thus setting to one side our ordinary intuitions about wrong or unfounded love.

There is much controversy in the philosophical and psychological literature over whether there are unconscious states of love and other emotions. On the James-Lange theory of emotions, emotions are conscious feelings of changes in the body. Even Freud denied the existence of unconscious emotions. For Freud, the notion of unconscious affect is a contradiction in terms. It's an oxymoron just like "silent scream," "living dead," "old news," and "dark light." Many people are reluctant to recognize the existence of unconscious love.

Philosopher Annette Baier, for example, holds that “emotions are felt,” and that “they are episodic, lasting minutes rather than days” (“Feelings that Matter,” p. 204).

But empirical evidence demonstrates the existence of unconscious affective states. For example, it has been found that partially blind people can correctly guess the emotional expression of faces presented to them in their blind field. Other studies have shown that threatening faces that are masked and hence processed below conscious awareness can elicit unconscious affective responses.

But it is one thing to point to a few cases of unconscious affective states; it is quite another to determine whether these states are unconscious emotional states. I have argued that love and other emotional states are states of the mind that represent the impact the external world has on the body and mind. This new approach to emotions leaves room for unconscious affect, including unconscious love.

“Love is of all passions the strongest, for it attacks simultaneously the head, the heart, and the senses,” Lao Tzu once said. It is certainly true that love can be an enormously intense emotion. However, I have argued that many cases of love would be wrongly characterized as intense. When we are not aware of our loving attitude, the attitude is not intense, as it isn’t felt. Even when it’s felt, it need not be felt as penetratingly powerful. One reason for this is that love comes in degrees.

Marilyn Monroe wisely observed that it’s better to be unhappy alone than unhappy with someone else, referring to your choice to end an unsustainable relationship. Ending a valueless or toxic relationship is indeed a choice you have. But you need not live alone and also be unhappily in love with someone who doesn’t love you or with someone who loves you but who can’t handle a relationship. Though you cannot willfully choose not to love someone you do love

the way you can choose to turn on the television or open a can of tomatoes, you do have some personal power over your own emotions. Various techniques and remedies suitable for dealing with other gloomy or crepuscular emotions, such as stress, sadness, and despair, are perfectly fit for coping with love as well. They are apt for defeating your inner demons. That makes it possible for you to fall out of love when your love is too mighty to bear. Should all else fail, remember the best three-word lesson about life: it goes on!

NOTES

Chapter 1

- (p. 1) All identifying information of any real persons has been modified or eliminated.
- (p. 8) Annette Baier (2004, p. 204) speaks of emotions as episodic.

Chapter 2

- (p. 12) A characterization of love as a chemical addiction can be found, for example, in School of Attraction (February 3, 2010).
- (p. 15) Helen Fisher discusses the chemical profile of love in, for example, Fisher and Thomson (2007).
- (p. 16) An account of the Good Friday psilocybin experiment of the 1960s can be found in Hagerty (2009).
- (p. 17) The Dr. Fox effect was originally reported by Naftulin et al. (1973). See also Williams and Ware (1976).
- (p. 19) The Swiss experiment on the effects of L-Dopa on face perception can be found in Philips (2002). See also Brugger et al. (2008) and Krummenacher et al. (2010).
- (p. 22) Adria Schwartz's report of a man addicted to the chase is detailed in Schwartz (1979, p. 406).
- (p. 25) The story about Victoria and Albert can be found in Gill (2009).
- (p. 30) Howard and Martha Lewis report on the effect of adrenaline on the body in their *Psychosomatics* (1975, p. 27).
- (p. 31) Further details about broken heart syndrome can be found in the press release about the syndrome from Johns Hopkins Medicine, February 9, 2005.
- (p. 32) More information about pimples and gray hair in response to stress can be found in the article "Science of Stress."
- (p. 34) The 2000 Gail O'Toole case was reported by Pittsburgh Channel, November 2, 2006.
- (p. 36) Damasio's report on patients with vmPFC damages can be found in Damasio (2000, pp. 43–44).

Chapter 3

- (p. 39) The Greek word “philia” is sometimes translated as “friendship” rather than the more pertinent “(mental) love.” (Diogenes Laërtius, third century AD).
- (p. 39) Annette Baier’s thought on emotional interdependence can be found in her “Unsafe Loves” (1991, p. 444).
- (p. 39) The Sean Penn citation is from the interview “Sean Penn Does not Want to Hurt You.”
- (p. 40) For the view that love is a concern for another person for her sake rather than one’s own, for example, see Fromm (1956), Frankfurt (1999). For a defense of the view that love is an appraisal of the value of another person, see, for example, Velleman (1999), and for defenses of the view that it’s a bestowal of value on the beloved, see Singer (1994, 2009); Jollimore (2011).
- (p. 40) For the view that romantic love is never an emotion or feeling, see, for example, Fisher (2005).
- (p. 44) Griffiths (1997) tackles the issue of whether emotions are natural kinds.
- (p. 44) Prinz (2004c) argues against Ekman’s six emotions as simple and basic.
- (p. 45) Seireol Morgan’s case of Johnny can be found in Morgan (2003).
- (p. 49) For Damasio’s work, see his publications in 1994, 1996, 1999, and 2003.
- (p. 53) For discussion of the technological singularity, see also Chalmers (2010).
- (p. 53) Good defined “the singularity” in his 1965 article.
- (p. 54) Nussbaum’s relevant works include her publications in 2001 and 2004.
- (p. 56) Henrik Ehrsson’s studies are reported in Ehrsson (2004) and Petkova and Ehrsson (2008) and (2004).
- (p. 58) The more recent case of Cotard’s syndrome is reported in Baeza et al. (2000).
- (p. 59) Synesthesia was first extensively dealt with in Cytowic (1989).
- (p. 60) The head grafting case is described in Boese (2007).
- (p. 63) For the study of the emotional effects of adrenaline, see Schachter and Singer (1962).
- (p. 65) Prinz’s views concerning emotions and well-being can be found in his “Embodied Emotions” (2004b, pp. 55–57).
- (p. 67) The video can be found at <http://www.horrorphile.net/sick-the-life-death-of-bob-flanagan-supermasochist/>. Accessed on March 20, 2010.
- (p. 67) The paradox of fiction is formulated in Carroll (1990).

- (p. 69) In cases of conscious emotions, we can say that emotions are perceptual or imagery appearances of the body or mind responding to the emotion-relevant properties of the object.
- (p. 70) For the original publication of the little Albert study, see Watson and Rayner (1920).

Chapter 4

- (p. 74) The criterion can be found in De Sousa, “Emotions: What I Know, What I’d Like to Think I Know, and What I’d Like to Think” (2004), p. 72. Nothing hinges on my use of the word “rational” here. If “justified,” “warranted,” or “appropriate” is more to your liking, substitute the relevant instances in your head. Here I will use all of these expressions synonymously.
- (p. 74) Love is believed to be sustained by qualities the beloved actually has.
- (p. 77) Havelin (2004) provides a detailed account of the life of Victoria Woodhull.
- (p. 80) Solomon (1988, p. 154) argues that loving a person for his or her physical attributes or personality traits is not really love of the whole person.
- (p. 82) Tennov (1979) argued that romantic love is a state distinct from true love.
- (p. 82) Johnson (1983, p. 45) argued that romantic love is involuntary feelings and ideals.
- (p. 83) Richard Nisbett and Timothy Wilson’s study is reported in “The Halo Effect” (1977).
- (p. 84) The case of Lorraine Allard can be found in “Mother Delays Cancer Treatments So Baby Can Live.”
- (p. 85) The case of Homer T. Roberts Jr. is detailed in “Drowning Victim Gave Life to Save Boy.”
- (p. 85) The Wesley Autrey incident is reported in “Man Is Rescued by Stranger on Subway Tracks.”
- (p. 86) Abraham Zelmanowitz’s heroic act is described in “Abe Zelmanowitz: A Friend to the End.”
- (p. 88) The cases of love Velleman (1999) speaks of seem to be examples of compassionate love. According to Velleman, this is the only kind of true love. As far as I am concerned, the dispute over which forms of love are *true forms* is merely a terminological one.

- (p. 89) The story about the mother who saved her child's life by donating large patches of her skin is from "Give Skin to Save Child," *Gazette Times*, February 22, 1908.
- (p. 91) Kolodny's main views about love are expressed in Kolodny (2003).
- (p. 93) The case of the schoolboy impostor is reported in "The Imposter."
- (p. 94) Christopher Grau and Cynthia Pury, researchers at Clemson University, tested Kraut's hypothesis.
- (p. 97) The original split brain studies are detailed in Gazzaniga (1998).
- (p. 98) The Sharan Suresh quote can be found in "Transgenders Are Born, not Made." "Trans*" is an abbreviation that can stand for, among other things, "transgender" and "transsexual."
- (p. 98) Parfit's thought experiment can be found in Parfit (1984).
- (p. 101) The claim that romantic love fades in a year or two can be found in Hatfield et al. (2008).
- (p. 101) The *New Yorker* interview with the school shooter's father can be found in "The Reckoning."

Chapter 5

- (p. 103) See Harlow (1958) for the main studies of attachment.
- (p. 106) The study of the attachment patterns of couples in airports is from Fraley and Shaver (1998).
- (p. 108) For studies of the negative emotions in avoidant attachment, see Asendorpf and Scherer (1983), Shedler et al. (1993), Mauss et al. (2007), Mikulincer and Shaver (2003), and Mikulincer et al. (2002).
- (p. 110) The stalker case can be found in "The Death of Rebecca Shaeffer."
- (p. 117) Berscheid (2010) talks about the familiarity effect that makes abuse victims stay with their abuser.
- (p. 121) For the full story about Herman and Jean, see Noe (2010).
- (p. 126) On sex differences in jealousy see Buss et al. (1992) and Buss et al. (1996).
- (p. 127) On the details of Helen Fisher's survey for Match.com, see "Digital Citizen."
- (p. 128) Kahneman (1991) has in-depth details about loss aversion.
- (p. 129) For the evolutionary origin of the endowment effect, see Brosnan et al. (2012) and Apicella et al. (2014).

- (p. 133) Kirkpatrick and Hazan (1994), Fraley, (2002), and Davila and her colleagues (1997) report on changes in attachment style.
- (p. 135) Attachment in newly divorced couples has been described by Weiss (1975).
- (p. 138) Mills's study is currently unpublished but a preview can be found at <http://www.9news.com/news/article/369104/337/Study-Your-cat-hates-you>. Accessed on January 2, 2014.
- (p. 139) Custance and Mayer (2012) report that dogs seem to be attuned to the emotions of their owners.
- (p. 140) The story about the dogs Tika and Kobuk can be found in Hile (2011).

Chapter 6

- (p. 144) Winkielman and Berridge (2004) provide a compelling case for unconscious emotions.
- (p. 145) Hohmann (1966) reports on emotions in injured soldiers.
- (p. 148) Emotional blindsight is described, for example, in de Gelder et al. (1999), Morris et al. (2001), and Hamm et al. (2003).
- (p. 149) On the failed attempts to “cure” homosexual men, see McConaghy (1976).
- (p. 149) The case of Yvonne Sullivan was detailed in Mail Online, February 23, 2008.
- (p. 150) The idea that Capgras syndrome is due to a deficit in the link between the face recognition mechanism and the emotional brain (the amygdala) is discussed in Ramachandran and Blakeslee (1998, pp. 158–173). See also De Sousa (2004, p. 67).
- (p. 155) Napoleon and Josephine's relationship is detailed in *Napoleon and Josephine: A Love Story* by Theo Aronson
- (p. 155) Damasio reports on the case of David in Damasio (1999).
- (p. 156) The case of Elizabeth von R. is detailed in Breuer and Freud (1895/2000).
- (p. 159) Cartwright (1991) proposes that dreams function as a psychological healing mechanism.
- (p. 161) On love as a disposition, see Goldie (2010); Naar (2013).

Chapter 7

- (p. 176) Frankfurt's work on this topic can be found in his publications of 1988, 1998, and 2004.

- (p. 179) Frankfurt (2004) and Korsgaard (2009) think that a divided will is less virtuous than a determinate mindset.
- (p. 179) For an argument in favor of ambivalence, see Gunnarsson (2013).

Chapter 8

- (p. 181) The results of the *Woman's Day* and AOL Living's survey are reported in "Happily Ever After? Not Really, Many Wives Say."
- (p. 181) For the claim that marriages go sour closer to three years into their relationship than seven, see Roberts (2007).
- (p. 182) "Love, Sex and the Changing Landscape of Infidelity" cites an estimated figure of 60 percent for cheaters.
- (p. 191) Donald Mosher's three-component analysis can be found in "Three Dimensions of Depth of Involvement in Human Sexual Response."

Chapter 9

- (p. 203) Marcel Proust's *In Search of Lost Time* was originally published in French between 1913 and 1927. It was originally translated as *Remembrance of Things Past*.
- (p. 207) Oswald's sleep study was published in Oswald (1960).
- (p. 210) The Murakami quote can be found at the beginning of chapter 13 in IQ84.
- (p. 210) Rothbaum and Foa's new take on prolonged exposure therapy is described in Rothbaum and Foa (1997) and Rothbaum and Foa (1999).
- (p. 213) "The WELL" is an acronym for "The Whole Earth 'Lectronic Link."
- (p. 214) Shapiro's study was published in the April 1989 issue of *Journal of Traumatic Stress*.
- (p. 221) On the benefits of water on the psyche, see Lee and Schwarz (2011).
- (p. 221) William James conveyed his thoughts about procrastination to Carl Stumpf on January 1, 1886.

Chapter 10

- (p. 226) The results of Lee Berk's study were presented at the Experimental Biology 2010 conference, April 24–28, 2010, at the Anaheim Convention Center. See Federation of American Societies for Experimental Biology. "Body's Response to Repetitive Laughter Is Similar to the Effect of Repetitive Exercise, Study Finds."

- (p. 231) George E. Vaillant's longitudinal study is described in his book *Triumphs of Experience: The Men of the Harvard Grant Study*.
- (p. 233) On the difference between life satisfaction and meaningfulness, see Brogaard and Smith (2005).

Conclusion

- (p. 234) Woody Allen's interview with *Time* magazine can be found in "The Heart Wants What the Heart Wants."

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