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A Little Experiment

For the sake of experiment, read the next sentence once, while counting the number of “f”s that you see.

“Five-winged flies are the result of years of scientific study combined with the experience of many years.”

Most likely, you counted an “f” in each of the more vibrant words of the sentence: “five,” “flies” and “scientific.” Most people only see these three “f”s, when in fact there are six. The other “f”s are hidden in the unassuming preposition “of”. Your mind probably skipped over each “of” because it processed these words without absorbing the raw information of the letters that composed them.

This isn’t the first time your mind has excluded information right in front of you (or included or distorted information that wasn’t there). For example, you’ve probably read your own emails without seeing the spelling errors because your mind filled in the words it expected to see. Or perhaps you’ve conversed with someone and answered a different question than the one the person asked. Exclusion, inclusion and distortion are the basis for many of the daily illusions that fill our lives, whether these illusions are visual, auditory or emotional.

Most of the time, we live on autopilot, even when we face a complex social situation. For example, research by Robert Abelson and Ellen Langer in the 1970s found that people usually follow mental “scripts” and are mindless much of the time in their social interactions.

Instead of responding to what you are saying, most people respond

to what they assume you are going to say. Surprisingly, we respond less to the specific words, images and sounds we receive than to our mental images of what that stimuli should be.

Students learning about vision have been traditionally taught that as light moves through the lens of the eye, the light is bent and transposed onto the retina, which converts the light to electrical energy. The electrical energy is then ‘developed’ by the occipital lobe and other regions of the brain, transforming into the image that we “see.” The conventional model of sight suggests that there is a direct, one to one correspondence between the objects in the world and the image of them in our brains. However, recent research has revealed that around eighty to ninety percent of what we “see” actually comes from what we already have stored in our cortex; under twenty percent of visual perception stems from the sensory data provided by our retinas. (Gregory, 1998).

Most adults have heard the adage “you never get a second chance to make a first impression.” We dress up for job interviews, first dates, business meetings and cocktail parties, vaguely aware that strangers will draw various conclusions about us based solely on their first interaction with us. Research shows mixed results about the veracity of the saying. While an explicit first impression can be changed upon the reveal that it is false, implicit impressions are less flexible. (Wyer, 2010). It seems that upon our first encounter with a new person, our brain doesn’t have a warehouse of images of that person to draw upon, so we take a closer look and absorb the details of that person. During subsequent encounters, we will most likely fall back on the first image rather than expend energy on re-seeing the person. In the past, our ability to rely so heavily on our mental image of the person was a useful skill and an adaptation that increased our efficiency. However, in today’s world, our heavy reliance on what we remember rather than what we are actually experiencing may be a maladaptation.

Perhaps you've tried to draw a tree and found to your dismay that your drawing looks nothing like the tree in front of you. Most of us carry around a predictive hypothesis of what the tree (and other external objects) should look like. (Gregory, 1998). People are so dependent upon their own mental image or description of a tree that they never really see what the oak, elm, birch, or sycamore in front of them looks like. They miss the fantastic tracery of its bark and the silhouette of its leaves against the sky in favor of a nonspecific, pre-fabricated image of a tree inside their mind's eye. Most of the world then exists as a phantom in the brain, a pale shadow of itself, rather than as a living, changing, swirling body-slam of sensations.

Expectations Sculpt Perception

The phenomenon of phantom limbs offers a striking example of one way in which our body clings to first or early impressions. A phantom limb is the vivid sensation that an amputated or missing limb is still attached to the body. Neuroscientist V. S. Ramachandran realized that phantom limb sensations might be due to sensory reorganization in the brain. Ramachandran hypothesized that if someone were to lose his right hand in an accident, he might then have the feelings of a phantom limb because the input that normally would go from his hand to the left somatosensory cortex would be stopped and the areas in the somatosensory cortex that were near to the ones of the hand (the arm and face) would remap the cortical region that no longer received signals.

In an experiment, Ramachandran asked volunteers who had phantom pain in an amputated arm to put their remaining arm through a hole in the side of a box with a mirror inside. When looking through the top of the box, the volunteer would see both their arm and its mirror image, offering them the illusion of two arms. The volunteer would move both their intact arm and their phantom arm (in their mind) and then have the sense that he had two arms again. Despite

the volunteer's knowledge that the sensation was an illusion, the mirror box offered immediate relief. People formerly unable to unclench their phantom fist felt their hand open. After daily use of the mirror box over weeks, people had the sensation that their phantom limbs were shrinking back into their stumps; in some cases, the phantom limb vanished. It seems that when the brain receives new visual signals from the mirror box that intimate motion in the absent arm, the brain is forced to assimilate totally new information into its sensory map of what's happening. The pain vanishes.

Scientists are not the only ones to recognize that our minds, at least in part, shape our reality. Back in the 1700s, the Romantic poets believed that the imaginative work of our minds played a role in creating our perception of truth and reality. In "Composed a Few Miles Above Tintern Abbey, on Revisiting the Banks of the Wye During a Tour," William Wordsworth poeticized this concept:

“and of all that we behold
From this green earth; of all the mighty world
Of eye, and ear,--both what they half create,
And what perceive”

The human condition requires that we use our minds to shape what we see and hear. However, we didn't always harbor such strong expectations about the things we should see. As children, we were driven by our desires and needs to see, touch, taste, feel and hear the world around us. Consequently, we lived in a constant state of wonder. Everything was new.

Children's minds are poised to learn about the world as it exists, rather than the world as they expect it to be. A child's brain possesses twice as many neural circuits as an adult's brain. (Wesson, 2009). Spend a day walking with a child and you'll find that they will show you many of the things you can no longer see. Not only do children "see"

more accurately than adults much of the time, they also soak up new languages and new skills rapidly. If a child does not hear human language by the age of nine or ten, she will face an uphill battle learning to speak any language later in life. Visual stimulation early in life, too, is essential to a child's ability to process visual data.

Like other sentient beings, children begin to lose their flexibility for learning wholly new languages and skills in puberty, around the age of 12, as they acquire hormones such as testosterone and estrogen. When adolescence hits, the phonetic sensitivity of children declines and it becomes difficult to learn a new language. It becomes difficult to learn the guitar. It becomes difficult to learn a new sport. Even if an adult does learn a new language after this age, true mastery is rare. Often those that have acquired a language after this age, but speak with an accent, believe they're speaking perfectly because they can't truly hear themselves. We have a tough time hearing others, much less ourselves.

Although adults can build upon the languages and abilities they have already acquired, they have great difficulty absorbing a whole new skill. Even if you only learn one instrument when you are young, your brain is primed to pick up another instrument and build upon its musical abilities if you try to pick up another instrument when you're older. However, if you learn to play your first instrument as an adult, a completely different area of your brain is activated than the one that would have been activated if you had learned any instrument as a child. The same principle applies to languages. Although you have to learn the basics of reading when you are young, you can add vocabulary the rest of your life. Perhaps children should learn a smattering of many different languages when they are young so that later on they can build on that foundation, mastering any one of those languages rather than just choosing one or two.

Where might you look to determine the reason for the dramatic changes in our ability to learn from childhood to adulthood? You

would probably examine what makes children and adults physically different and suspect that sex hormones like testosterone and estrogen play a role in mental development. In fact, testosterone does seem to make a difference. When asked to think of the most masculine young men you know, you may picture ‘dumb jocks.’ Conversely, when conjuring an image of the least masculine young men, you may think of artists or philosophers.

It turns out that testosterone does impact mental flexibility and learning. While young male zebra finches easily acquire new songs, this flexibility diminishes with the increase in exogenous testosterone that accompanies maturity. The loss of song plasticity correlates with a higher testicular mass. In one study, adult zebra finch males were administered either testosterone or flutamide (a testosterone receptor blocker) and the changes to their songs were tracked. Males implanted with testosterone changed their songs less than did those males that received flutamide implants. It may be inferred that the high testosterone concentrations associated with sexual maturity and song crystallization in zebra finches reduces the potential for learning new songs in adults. (Williams et al., 2002).

The link between an increase in the sex hormones that signals maturity and a loss of flexible learning is sharpened by the fact that human boys and girls with precocious puberty have exhibited developmental difficulties with learning languages. Furthermore, as children mature, the development of those intellectual abilities based upon reason, logic and abstraction (fluid intelligence) slows down, even as the human ability to increase those skills learned through education and experience continues to grow. In other words, children start to build upon what they have already learned and it becomes increasingly challenging to acquire new abilities.

Our genes dictate that by the time we are 12-16, we graze less on raw sensation and begin to act upon the world with the skills we

have acquired. After all, until about 2000 years ago, we could only expect to live until the age of 20. Around 1796, we expected to live until about age 24. We spent our first twelve years investigating the world and developing our perceptions about it, and then the next ten years acting upon those perceptions. It was an adaptive strategy at the time because we had a much shorter period of time in which to accomplish any given task and couldn't afford to live in a constant state of intense wonder, taking things a sensation at a time. Also, the adaptive strategy of spending our first decade acquiring knowledge and our second decade acting upon the world armed with that knowledge permits us to be born into any culture in the world and survive. As the Yale social psychologist John Bargh mentions, "We're totally transportable which means we're totally open to be adapted to wherever we land no matter the people, the norms, the language or culture. We just absorb it."

Many parents notice that upon entry into adolescence, their once curious child thinks he or she knows it all. From an evolutionary perspective, an adolescent's attitude makes sense. He or she has spent ten years accumulating knowledge and is physically ready to start executing on the world. Unfortunately, even the transient feeling of power engendered by adolescence can dramatically change the way an adolescent responds to information. Psychologists find that increased authority makes the powerful person less sympathetic to the concerns and emotions of others. Several studies have found that people in positions of authority are more likely to rely on stereotypes and generalizations in their interactions with other people. When listening to an argument, most people in authority look at whether the argument confirms what they already believe, ignoring those facts that disprove their position. In other words, power can reduce our ability to learn.

Just centuries ago, our environment was simpler and more static, so it made sense to develop shortcuts with which to behave automatically,

rather than pay attention and act mindfully. However, in light of our increased lifespan and the rapid-fire changes of the modern world, does this strategy of perception make sense today?

In our eagerness to fill in the blanks and move more quickly through the world, our cognitive structures grow increasingly unwilling to accommodate new experiences. We estrange ourselves from our senses and become strangers to the external world. “The lover of nature is he whose inward and outward senses are still truly adjusted to each other; who has retained the spirit of infancy even into the era of manhood,” wrote transcendentalist Ralph Waldo Emerson. After childhood, most of us rely on our expectations, rather than pay attention. We rely on the interplay of our senses, rather than the full power of each of our senses. For example, we are likely to judge that an object has more green in it because it was presented in the form of a clover, whereas we see it as more brown if it is presented in the shape of a donkey. (Barodisky 1999).

In a classic example of tricks that demonstrate the inattention of the human mind, psychologists Daniel J. Simons and Christopher F. Chabris asked spectators to count the number of times a team of three basketball players passed a ball to each other, while ignoring the passes made by three other players. Half of the spectators were concentrating so hard on the task of counting that they failed to notice a man in a gorilla suit enter and beat his chest — even when they were staring straight at him.

Our vision renders us blind.

What was a remarkable adaptation to a more static environment centuries ago has become hazardous in today’s information traffic jam. Take the car accident of fifteen-year-old Christopher Hill in Oklahoma in 2009. Hill, an otherwise exemplary driver, was driving his car and making a cell phone call at the same time. Distracted, he

ran a red light. His car struck another vehicle at forty-five miles per hour, killing its driver. Afterward he stated that he had never seen the color of the light. Drivers typically overestimate their ability to multi-task, engaging in behaviors they might not think are dangerous, like texting and driving at the same time. Dr. Donald A. Redelmeier, a physician-researcher, and Robert Tibshirani, a statistician at Stanford University, found that talking on a cellphone while driving is as dangerous as driving drunk. Tibshirani said the paper they published on this finding “is likely to dwarf all of my other work in statistics, in terms of its direct impact on public health.” In line with Redelmeier and Tibshirani’s thesis, in a virtual driving simulation a participant making a phone call missed the fact of a body lying on the side of the road. She soon crashed while texting. Because the driver’s attention was focused on a telephone call, she was distracted from an object that would ordinarily grab her attention due to its novelty.

We also give more attention to the novelty of curves than to the predictability of straight lines. Our eyes usually sample our environment through a vision system known as the saccadic system. Saccades are very rapid movements of the eye, the head or another body part. In the instance of eye saccades, the movement of the eye permits small parts of a scene to be sensed with greater resolution, which allows the resources of the body to be used more efficiently. Anything out of the ordinary or unexpected draws our attention, at which point the saccadic system is interrupted and we focus intently on the questionable image. When we are satisfied with our understanding of the scene, our saccadic scanning resumes. From a Darwinian perspective this strategy was very useful: we could spot the movements of a predator out of the corner of our eye and then focus intently on that spot until danger had passed.

Curved movements short circuit the saccadic system. Indeed, the pickpocket Apollo Robbins noted that he could only steal the wallet

of a man who knew he was going to have his pocket picked when he moved his free hand in an arc instead of a straight line. (Martinez-Conde and Macknick, 2008). The arc momentarily distracted the victim, allowing Robbins to use his other hand to pick the pocket.

When the mark focuses on the curve of Robbins' hand, the mark's mind is distracted away from the site of the pickpocketing by the additional attention required to process the curve; if the pickpocket moves his hand in a straight line, the eye is able to accurately predict the end-point and revert to scanning the environment. Alternatively, scientists posit that curved motions may just be perceptually more salient than linear ones and attract stronger attention. (Martinez-Conde and Macknick, 2008). Under either of these explanatory hypotheses, it is the mark's inability to truly attend to the environment that renders him vulnerable to the trick, just as it is often a driver's failure to attend to his environment that causes a crash.

Magic tricks also provide lessons on the human mind and attention. Neuroscientists have conducted experiments with "the vanishing ball illusion." This trick begins with a magician tossing a ball a few times and easily catching it. On the final toss, the magician only pretends to throw the ball, continuing to follow the imagined trajectory of the ball. However, he has palmed the ball. Nonetheless, most observers perceive that the ball has ascended and vanished into thin air. Scientists determined that the magician's head and eye movements redirected the spectators' attention to the predicted position of the ball. (Kuhn and Tatler, 2005).

A year later, scientists discovered that the spectators' gaze did not point to where they said that the ball vanished. (Kuhn and Land, 2006). The finding suggested the illusion did not trick the brain. Rather, the magician's head and eye movements were critical to the illusion, because they redirected the observer's focus, not their gaze, to the predicted position of the ball. The neurons that responded to

the implied motion of the ball suggested by the magician's head and eye movements are found in the same visual areas of the brain as neurons that are sensitive to real motion. Implied and real motion activated similar neural circuits. An observer perceives that the moving object is further along its path than its actual final position. Perhaps, rather than looking at the real destination of the ball, our brain takes a shortcut and extrapolates the likely outcome based on the motion that went before, rather than by looking at the ball itself. (Kuhn and Land, 2006).

Reversing Perceptual Blindness

The French philosopher Henri Bergson wrote, "The eye sees only what the mind is prepared to comprehend." As adults, once we recognize that we have become blind, can we choose to start seeing again? One way to start seeing what we've missed is to reframe the world by taking the familiar out of context. For example, when we draw a tree, we might look at it upside down between our legs. The tree appears to be new, and so we can see it as it is (and therefore, draw it more accurately). When doctors look at chest x-ray after chest x-ray, they may become so inured to looking past the fact of the bones to the heart and lungs, that they miss a rib fracture. In order to 'see' the fracture, the doctor might need to turn the chest x-ray sideways, inhibiting the learned preconception, in favor of the details that can only be noticed when the image is "new."

Another way to reframe the world is to change yourself. Even as simple an act as getting a haircut can alter how others see you or how you see yourself, causing a chain reaction of alterations in how you and the world interact. Daily engagements with pranks, art, humor and design can also revitalize or change your perspective because they move you away from conventional thinking and toward the edges and margins of thought and experience where we encounter the unexpected.

You can also counteract the mind's tendency to take shortcuts by practicing improvisation. Although we usually interact with others in a narrow model of behavior or "scripts" as studied by Langer and Abelson, practicing improvisation puts us in fast-paced, unexpected circumstances that require us to respond to other people outside of the scripts in which we usually operate. Because what's being said in improv is unfamiliar, we pay more attention and respond to the other person's actual body language and what they are really saying, instead of anticipating their speech and responding to what we think they've said.

Or you can dramatically change your environment and shock your body and mind out of complacency. You can go to Burning Man, go snorkeling, or vacation in a foreign country. While new neurons are not created in the brain — an adult has roughly 100 billion of them — intense new experiences allow new connections to be formed and strengthened between neurons. The more the new experience diverges from your everyday experience, the more your brain will be challenged and exercised into a state similar to that of being a child and the more raw sensory information you can take in. On a practical level, when you return to your usual routine, the different perspective you bring back with you allows you to take in more and see what you were unable to see before. So, for example, when you first snorkel or scuba dive, you may be fascinated and awestruck by the beauty and glory beneath the surface of the sea. After a while, you'll adapt to what you've seen. When you return to land, the world seems strange and unfamiliar. Going further, most people who are used to snorkeling or diving during the daytime will still be astonished by the undersea world at night, when their sense of sound is heightened and they tend to find that the ocean seems much louder than it did by sunlight. Suppress or silence one sense and another grows louder to compensate.

Increasing our sensitivity is the form of change in the world that is most easily leveraged and yet it is often the last solution we consider when faced with any one of the wide array of social problems. As our world rapidly morphs into a global village, we must solve problems that are worsened by ideological conflict — war, poverty, disease, child soldiers. Are the problems themselves hard, or have we become insensate? Rather than tackle these problems on a case-by-case basis, it might make more sense to demand and create a solution for our lost flexibility of perception. Our failure to see that we need to shift our focus from narrow solutions to expanded perception is itself an example of the phenomenon of hiding in plain sight.

The positive effects of remaining attentive to our environment are not limited to our visual sense alone, but apply to what we hear, taste, touch and feel. We can only avoid the tricks, phantoms and illusions — those things that exist only in our mind and not in the real world — by developing strategies to increase our mindfulness in every sense.

Why Teach Humor?

“The most wasted of all days is one without laughter,” said the poet E.E. Cummings. Those who trigger our laughter with their humor are the people we want to spend time with, work with, or date. Humor opens our eyes to unexpected possibilities in the world, relieves our stress, improves our health, ameliorates an awkward situation, and increases our influence on others. It is widely assumed that people who are funny were born that way and so development of a sense of humor and an ability to be humorous is left largely to the luck of the draw — your family circumstances or the television shows you watch.

Those of us who grew up in a mainstream educational system were taught reading, writing and arithmetic in school. Anyone cracking jokes in the back of the room was fined with twenty-thirty minutes in a minimum-security afterschool detention center. Now, we know that the humor that institutions failed to appreciate when we were children can help us tremendously in professional, romantic, and social settings. So, what can we learn from the kid in the back of the room? What if we approach humor as a skill that carries as much weight in our daily lives as reading, writing and arithmetic? Certainly more than algebra!

We’re not interested in creating a world full of stand-up comics or stage performers. We’re also not focused on humor scripted in a room of television writers, although we can learn from those instances of humor as well. Rather, we’re interested in humor that holds practical applications for our daily lives, such as being more

successful at work and nurturing a romance to socializing and having more fun with our friends.

Studies show that relationships can be forged or strengthened by humor. For example, in 2006, psychologists Eric R. Bressler and Sigal Balshine found that women are more likely to find a man in a photograph desirable when a funny quote purportedly by the man accompanies the picture. Likewise, students enjoy learning more and perceive that they learn more when teachers brandish humor in their classes. We enjoy our workplace more if we have a funny leader or funny co-workers. Research shows that employees who work in workplaces or teams where funniness is valued feel more allegiance to the group. (Holmes, 2000).

The side effects of laughter in the past, present and future cannot be emphasized enough. Dr. Michael Miller, director of the Center for Preventive Cardiology at the University of Maryland Medical Center has said, "We don't know yet why laughing protects the heart, but we know that mental stress is associated with impairment of the endothelium, the protective barrier lining our blood vessels. This can cause a series of inflammatory reactions that lead to fat and cholesterol build-up in the coronary arteries and ultimately to a heart attack."

Just knowing that you're about to laugh can increase the hormones that increase feelings of wellness and decrease the type of stress hormones that can be detrimental when chronically released. (Berk and Tan, 2006). Similarly, reviving a memory about a time when you both laughed in the past can bring you closer to your partner. (Bazzini, 2000). And, laughter is just plain fun.

Everyone can identify laughter. The average adult laughs seventeen times a day. Laughter is so important to us as a society that we employ numerous words to describe the type of laughter elicited: someone can chuckle, chortle, crack-up, titter, snicker or guffaw.

While humor does have a subjective component, you can learn and practice techniques that will make you — on a scale of one dull, dry history lecturer to a ten-car caravan of giggling babies, uncoordinated kittens and swearing grandmas — much more funny .

Can Improvisation Techniques Teach Us About Humor?

One of the earliest instances of improvisational theater was the Commedia dell'Arte, which was popular in the 16th century. The performers played stock characters and received a scenario in outline form, out of which they created comedic dialogue. After the Commedia dell'Arte craze subsided, theater emphasized scripted forms. Improvisation became popular again in the last century after Viola Spolin and Keith Johnstone each reshaped the form to incorporate sports and games.

Nowadays, improv schools are one of the only forums for teaching and learning humor, and probably the only organizations that have taught humor on a broad scale. From stand-up to situation comedies, humor can be found in many places. However, the humor developed through improv games is the type we think is most able to be cultivated by everyone. Status transactions, reincorporation and stating the obvious are examples of three distinct tactics that you can use to create humor in everyday situations.

Status Transactions

Improv teacher Keith Johnstone teaches his students to observe and perform based on the “status transaction” or the power dynamic underlying daily social interactions. Just as animals fight for dominance, humans also jockey for power. While a power struggle can be frightening or produce anxiety in real-life, enacting an imaginary power struggle can be fun. Similarly, actual violence, like a punch in the face, terrifies us, but football exhilarates us. Amusement parks

induce laughter, whereas uncontrolled movements, which are that fast and surprising, induce fear.

Humor and laughter are often a consequence of playing. Watch young primates engaged in a mock battle and you'll notice that they usually wear a play face—their mouths are open and their lips are retracted a bit. While wearing this face, their breathing comes out in a staccato chuckle. This play face signals to a primate's companion that he is just fooling around and not actually engaging in aggressive behavior. Play-fighting provides a dress rehearsal for adulthood, but it is also a way of learning and developing social bonds through power games. Primates are not the only ones who engage in this manner: dogs and bears wear play faces, too.

Brains produce tension when something unexpected occurs. In fact, any stimulation that triggers and releases our primitive fight or flight responses through surprise, incongruity or the unexpected may make us laugh. Philosopher of humor John Morreall has set forth the theory that human laughter is a shared expression of relief at danger passing. Shared expressions increase camaraderie. Accordingly, status transactions in the context of humor do not involve manipulation or mind games; instead, they depend on our willingness to play.

Two people can create humor in an interaction when one plays "low status" and another plays "high status". Their interactions either maintain status or seek more or less power. Tension (and its subsequent release) comes from the tiny ways that people compete for power by trying to raise their own status or lower the status of others. Someone slips on a banana peel and we laugh. Or someone is smacked with a pie in the face and we laugh. The status of the victim someone determines whether we think a gag is funny. For example, we'd probably find that a king getting hit with a pie in the face was funny because he drops in status, whereas we'd be less inclined to think that a grandmother smacked with a pie in the face is funny. The

other way to look at it is when a king with all his dignity and authority gets hit with a pie, it seems incongruous.

Sitcoms provide a rich source of examples of status games. For example, Ricky Gervais and Steve Carell in the roles of “boss” on *The Office* are funny because of their frequent drops in status as a result of some misplaced comment toward someone who is ostensibly lower-status in terms of office politics. Kramer in *Seinfeld* is depicted as a guy with crazy hair and even more outlandish ideas that never work out; some of the humor he generates is the result of the incongruity between his image or appearance and his words. The following example illustrates the incongruity between Kramer’s physical appearance and his words:

Kramer: I'm getting a new telephone number.

Jerry: How come?

Kramer: Chicks, man. Too many chicks know my number.

Few of us would see Kramer as a guy that gets a lot of women.

Incongruity in status or pecking order is also part of the humor of *The Golden Girls* and *Sex and the City*. Reversal of gender stereotypes and stereotypes about age fuel much of the humor in both shows. Sophia Petrillo in *The Golden Girls* is the oldest and shortest of four older women, therefore, we might expect her to be the most easily offended by contemporary social norms or the sweetest, but she is actually the feistiest and frankest of the bunch. *Sex and the City* similarly derives humor from gender stereotypes — it relies on the preconception that women don’t talk about sex the way men do and that men are more sex-driven than women. Most of the dialogue in *Sex and the City* is women talking about sex.

Quick verbal status transactions include witty banter, repartee, quick wits, jabs, rejoinders, and farce. Take note of the ribbing or banter at

poker games or in observation of close friendships. Humor fosters intimacy. (Aron, 2004). Psychologist Arthur Aron conducted a study in which he asked 96 undergraduates to toss and catch a ball with a stranger four times, and then bounce the ball on both sides of their partner. One group was told to approach the task seriously and the other was told to hold a straw between his or her teeth while blindfolded. Aron found that participants holding straws more often laughed about the task. Consequently, they were more likely to report feeling close to their partner afterward. Aron noted that "People naturally want to connect with others, but are often anxious... Humor breaks the ice and distracts from that discomfort."

The status game in the Old Spice commercial *The Man Your Man Could Smell Like*, which is played among three people (the man in the video, the woman in the audience and the man in the audience), is particularly pronounced. The commercial overplays the relationship between wealth and deodorant. The man's head is still and the scene moves and changes around him, which renders him the focal point and raises his status. Similarly, although the man's voice is fast and he is shirtless, which suggests low status, he assumes high status postures and a deep, commanding voice. When the man says to the woman in the audience, "Look at your man," and "sadly, he's not me," his voice condescends to the female viewer. Then, with the image of feminine, scented bodywash, he seems less dominant. But then his status is raised to that of a wealthy man with a yacht. The transformation of oysters (something squishy and raw suggesting vulnerability) to diamonds (one of the heights of hardness) is incongruous. When he says "two tickets to the thing you love," he insinuates he knows what the woman loves (and that "her man" does not). He lowers the status of the woman's significant other even further when he basically says "He can smell like he's me".

A willingness to play status games is often a hallmark of being friends. Animals share this willingness. When playing, animals take

turns winning and losing, going up in status and going down, and letting the other win at times. If an animal on a winning streak does not occasionally let the other animal win, the other animal is reluctant to continue playing. As in the animal kingdom, perpetually raising your status is not funny to other people and people who do that seem like bullies. While a consistent and constant effort to raise status is funny in sitcoms like *The Office*, that play on discomfort rather than camaraderie, this behavior is not as funny in real life.

The four potential status games you can play with another person are (1) lower the status of the other person (2) raise the status of the other side, (3) lower your own status or (4) raise your own status. In sequence, you can't keep putting the other person down or keep raising your own status or you will be bullying the other person. When you don't know the other person well, it's probably safer to start by lowering your own status.

Another variant on status games involves playing the game with objects rather than with the other person, playing the game with words, or a prior version of yourself. For example, slapstick is essentially a status game between you and the object. Similarly, when Kramer walks into a room in *Seinfeld*, the audience laughs because he acts in an exaggerated manner. Humor can be created when you speak in a monotone or deadpan, but exaggeratedly raise your eyebrows, creating an incongruity with your usual self that lowers your status.

Reincorporation

In this technique, the conversation has moved on and the context is different, so when you draw upon what's already been stated, it has a different meaning. The same word used earlier is suddenly relevant again in the new context. So, if you set up the meaning of something or it is already set up by convention, and then you play with that meaning (as in word play or double entendres), it's funny.

When Arnold Schwarzenegger repeatedly says in *The Terminator*, “I’ll be back,” movie-goers start laughing, partly because each time he says that he’s reincorporating each prior instance and partly because the fact of the repetition itself is amusing.

Or if, after watching the commercial *Where’s the Beef* you go out to lunch and you ask “Where’s the beef?” you are likely to elicit a laugh because you’ve re-contextualized the phrase from the commercial to the situation at hand and called up an association. Also, other people who have seen the commercial feel they’re part of a tribe. Inside jokes reinforce a sense of community and shared experiences; inside jokes are basically regular reincorporation of prior instances when we laughed. They depend upon a shared positive reminiscence — of course, if you repeatedly reminisce about a shared negative experience you’ll be a killjoy.

Using this technique calls upon your listening skills. One exercise to increase your ability to reincorporate prior material is to tell a story based on three unrelated words that your partner says and gradually build on the prior meaning by recalling it.

State the Obvious

Although some things are funny because of their incongruity, other things strike us as funny because they state something obvious and real about the situation. Most of the architecture of our minds is a house of preconceptions. You light that house on fire when you call their attention to something they didn’t notice themselves, but which they can recognize as true.

Or think of George Carlin, whose stand-up routines also rely on the bluntness of his observations. Another example of how stating the obvious has a humorous effect is the Literal Video Version of the song *Total Eclipse of the Heart*. Although the music is the same as the

Bonnie Tyler song, the new singer states a literal interpretation of what is happening in the video, which makes all of the imagery in the video funny.

Commenting on the elephant in the room is also funny. If you say something aloud that everyone else may be thinking but is afraid to say, the truth of what you say increases your relatability and diffuses the tension. If you look down and say “Oh, I’ve got ketchup on my tie,” you’re likely to get a laugh because other people were unsure of whether or not to tell you. Or, imagine you’ve just been robbed. Upon hearing this, nobody knows what to say and this creates tension between you and the other person. But, if you say “Well, that sucked,” there’s an emotional release; everyone is able to relax and a sense of closeness develops.

Conversely, the sarcastic variant or opposite statement is also funny. You could say, “Well, that was relaxing.” Based on paralinguistic cues, such as your tone of voice, everyone knows what you really think. While sarcasm is seen by some as the lowest form of humor, others see it as the highest form of wit — for years artificial intelligence researchers were unable to program robots to recognize sarcasm. Implicit in the difficulty of creating that recognition in machines was the fact that sarcasm is particularly human, particularly dependent on perceptual interpretation and intelligence rather than merely literal translation.

The real skill in this technique is awareness. Adults have been conditioned to follow programmed or automatic behaviors. We act on scripts rather than practicing genuine observation. When you describe what you experience through your senses rather than simply what you think, you are forced to think differently. One game you can play with another person that illustrates the humor in true observation is to each describe what you notice about the other person. Point to an object and say what it’s not—you’ll think differently

because you're not trying to follow a generalization or stereotype.

Where Can You See These Techniques in Action?

One example that incorporates all of the techniques we've mentioned is the commercial shown on YouTube, *Where's the Beef*. It depicts three elderly women examining a hamburger. The status games played generate our amusement — the loudest woman with the most gravelly voice is the smallest, the patty is totally tiny in comparison to the bun and even the pickle, which creates an incongruity; similarly, the use of the glasses elevates the status of the down-to-earth hamburger to the level of an heirloom and the lifting of the bun suggests it is really weighty. Additionally, the fact that three grandmothers is not the target audience for the commercial also increases the humorous effect. The commercial reincorporates or reiterates the line “Where’s the beef” as the actions and words of the other women change.

Another example of humor that uses three techniques can be found in the YouTube video *Charlie Bit My Finger*. The status game in the commercial is key: the older brother is the victim. When he inserts his finger, he gives up control (and lowers his status.) The younger brother laughs at the older brother’s pain and that turns the trope of “the older brother as bully” on its head. Charlie smiles at the point of maximum pain. And then, the older brother smiles at the end, which resituates him as the traditionally dominant older brother. The technique of stating the obvious is also used in the line “Charlie bit me” as the older brother continues reinserting. Reincorporation is also used: “Charlie bit me” and “That really hurt” are repeated. The delayed reaction (the “ow”) is also incongruous. The use of a British accent in this video is similar to the British accent of baby Stewie, the arguably funniest character in *Family Guy*. Americans often stereotype the British as proper and restrained, so when a dominant, aggressive baby speaks in a British accent, it is hilariously incongruous.

Know Yourself, Know Your Audience

The kid in the back of the class got a laugh when he was both true to himself and knew what other kids in the class would find funny. Even as an adult, in order to truly bond with other people through humor, you have to be yourself and read your audience correctly. Your expectations about people and your environment are different from those of the people around you and your awareness of both the common ground and the differences between you and your audience can help you tailor your humor to the other person.

Often we laugh when our expectations of rationality or conventional thought are overturned. Whenever someone starts speaking or acting, we are already anticipating what's going to happen and how it's going to end, based on our own past experiences. When we're surprised by the speaker's unexpected thought or action, we are jolted into another state. We experience both the prior prediction and the unexpected experience at the same time and the fact that they don't match up causes us to laugh or smile. Similarly, we laugh when we're tickled because it's unexpected. You can't tickle yourself because your brain knows what to expect from your movements. However, when someone else tickles you, your mind can't predict what comes next.

The tips we've described are not prescriptive; they are suggestions for increasing and expanding your repertoire with one or more people. Your humor should feel authentic to you and emerge spontaneously from the actual circumstances and people that surround you. As with learning an instrument or playing a sport, when you practice being funny and draw material directly from your environment, you'll grow more successful at it. Part of the practice of humor is to regularly step out of your comfort zone; you'll only figure out what works for you if you give yourself permission to fail. And, if you keep in mind that people usually want to laugh, you boost your confidence and become funnier.

Ultimately, there are people that will find your natural way of being, talking, or acting — sometimes without intention — funny. We all know some people who say and act in ways that always make us laugh. We fall into the habit of laughing since we find ourselves easily amused by them. You can be that person for other people. Practice different kinds of humor, then find your own comedic voice!

Has Death Outlived Its Usefulness?

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In a monastery in New Hampshire in 1981, two groups of men in their seventies and eighties relived the 1950s. The men talked about the launch of the first United States satellite and Castro's victory. They watched *Anatomy of a Murder* and black and white television and read back-issues of magazines. They engaged in discussions of sports figures of the 1950s. The first group pretended they were really experiencing the 1950s for the first time, whereas the second group simply remembered what it was like to live in that time period. Afterward, the men's minds and bodies were tested – both groups performed better physically and mentally. However, the men who pretended they were youthful again, as opposed to those who reminisced, demonstrated a dramatic improvement in performance. Youth had awakened within them.

Most people believe that aging is inevitable, that our bodies decay, a process that culminates in death. Through the study of the two groups of men, psychology professor Ellen Langer found that ideas internalized in childhood can shape the aging process. In fact, research shows that finding the Fountain of Youth is not as far-fetched as it may seem and the potential for immortality lies within our own bodies.

Right now, we're a multi-cellular organism programmed for death. Apoptosis or programmed cell death purifies a tissue from cells that have become detrimental to the organism. Analogously, in a concept called 'phenoptosis', our own programmed deaths are a mechanism of separating the healthiest kin, community of organisms, or population from individuals that nature recognizes as unhealthy. Although cancer horrifies us with its devastating and tragic effects

on the human body, its hardiness as a cell may prove instructive on this point. Once a few genes in a cancer cell mutate, the cancer cell becomes immortal.

Right now, we're essentially pre-programmed to fail. Right now, your personal ambition may be to live, but as soon as you have children (as soon as you make better versions of yourself), your body is ready to step out of the way. Death acts to push older generations out of the way, in order to allow younger generations to rise. Picture the twelve year old version of yourself. As a child, most of your injuries healed without a scar; you were always acquiring new energy and your intake of energy exceeded your expenditures of it. If the tip of your finger had been sliced off, it was possible for the fingertip to grow back. If you had that self-healing capacity when you were twelve, you should be able to continue self-healing and become more robust through adulthood so long as your intake of energy exceeds your expenditure of it.

Regeneration is possible among both invertebrates and vertebrates. Crickets can regenerate their legs perfectly. When fleeing a predator, lizards shed their tails. A new tail, albeit imperfect, grow back in place of the lost one. Salamanders regenerate limbs perfectly in about forty days; this regeneration is possible because the specialized cells in a salamander's limbs are able to dedifferentiate or regress to a less-specific form and then re-grow.

Along the same lines, even when 75% of tissue is lost, the human liver is capable of regenerating into a whole liver. Why shouldn't we also be able to regenerate our hearts or other organs?

In the wild, humans lived, reproduced and died in order to acquire a gene like the one that favors our consumption of green plants. However, the gene-based model of replication is being replaced by the meme model. In *The Selfish Gene*, Richard Dawkins coined the

term “meme” to describe a unit of cultural transmission such as ideas, beliefs, stories, songs or patterns of behavior. Like genes in the bodies of humans, memes are “hosted” in one or more minds; memes can be reproduced from mind to mind through imperfect imitation.

Nowadays, we can acquire traits via memes. In other words, another person can advise you to eat green plants and you can follow that advice. You can learn not to step in front of a train, not to eat toxic materials and to seek out knowledge simply by communicating with other people. While you can't learn to be 6' 7", natural selection through memes favors immortality through knowledge. The longer you live, the wiser you'll be.



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