



*God, Science,
and Humility*

**Ten Scientists Consider
Humility Theology**

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The Psychology of Humility

DAVID G. MYERS

Humility, like darkness, reveals the heavenly lights.

—HENRY DAVID THOREAU

Viewing the seeming contest between natural and supernatural explanation—between skeptical-seeming scientists and naive-seeming fundamentalists—it sometimes seems as if science and religion sit on opposite ends of an explanatory teeter-totter. As one rises, the other falls.

Actually, there is considerable common ground between science and religion. Part of that common ground lies in their shared emphasis on *humility*.

At the heart of theology: humility before God. “Lord I have given up my pride and turned away from my arrogance,” wrote the Psalmist (131:1). Reformed theology understands the Psalmist’s humility. It views human reason as fallen and limited. In the Reformation tradition, theology itself must be “ever-reforming” its always imperfect understandings.

As God’s creatures we have dignity, but not deity. We are finite creatures of the one who said “I am God, and there is none like me” (Isaiah 46:9). We peer at reality in a mirror dimly. Our most confident belief can therefore be the conviction that some of our beliefs contain error. People of faith can therefore appreciate Oliver Cromwell’s 1650 plea to the Church of Scotland: “I beseech ye in the bowels of Christ, consider that ye may be mistaken.”

At the heart of science: humility before nature. Historians of science have reminded us that many of the pioneers of modern science were people whose faith made them humble before nature and skeptical of human authority. As Christians, Blaise Pascal, Francis Bacon, Isaac Newton, and Galileo were wary of human intuition, preferring to explore God’s creation freely and to submit contesting ideas to the test. They viewed

themselves in God's service, whether searching God's word or God's works. To illustrate this spirit, Francis Collins, director of the Human Genome Project, likes to quote Copernicus: "To know the mighty works of God; to comprehend His wisdom and majesty and power; to appreciate, in degree, the wonderful working of His Laws, surely all this must be a pleasing and acceptable mode of worship to the most High, to whom ignorance cannot be more grateful than knowledge."

If, as previously had been supposed, nature was sacred—if nature were alive with river goddesses and sun gods—then we ought not tamper with it. But if these early scientists were right instead to view nature as an intelligible creation, a work to be enjoyed and managed, then we are set free to seek its truths through observation and experiment. Our ultimate allegiance is not to current opinion but to God alone. So, mindful of the frailty of human reason, let us humbly test our ideas. If nature does not conform to our presumptions, so much the worse for them. Disciplined inquiry—checking our theories against reality—is part of what it means to love God with our *minds*.

This attitude of humility before the created world also underlies psychological science. Christian psychologists, Donald MacKay argued, are "to 'tell it like it is,' knowing that the Author is at our elbow, a silent judge of the accuracy with which we claim to describe the world He has created."¹ If God is the ultimate author of whatever truth psychological science glimpses, then I can accept that truth, however surprising. Rigorous inquiry is not just my right, but my religious calling. What matters, then, is not my opinion or yours, but whatever truths nature reveals in response to our questioning. If animals or people don't behave as our ideas predict, then so much the worse for our ideas. As Agatha Christie's Miss Marple explained, "It wasn't what I expected. But facts are facts, and if one is proved to be wrong, one must just be humble about it and start again." This is the humble attitude expressed in one of psychology's early mottos: "The rat is always right."

Consider now how recent psychological science beckons us to humility—to an awareness of our vulnerability to error and pride, and thus to the ever-reforming spirit of faith and the inquisitive spirit of science that, brought together, help define humility theology.

Intuition: The Powers and Limits of Our Inner Knowing

What are our powers of intuition—of immediately knowing something without reasoning or analysis? Advocates of "intuitive management"

believe we should tune into our hunches. When judging others, we should plug into the nonlogical smarts of our “right brain.” When hiring, firing, and investing, we should listen to our premonitions. In making judgments, we should follow the example of *Star Wars*’s Luke Skywalker by switching off our computer guidance systems and trusting the force within.

Are the intuitionists correct that important information is immediately available apart from our conscious analysis? Or are the skeptics right in counseling humility and in jesting that intuition is “our knowing we are right, whether we are or not”?

The Powers of Our Inner Knowing

“The heart has its reasons which reason does not know,” observed Blaise Pascal. Three centuries later, scientists have proved Pascal correct. We know more than we know we know.

Studies of our unconscious information processing confirm our limited access to what’s going on in our minds. Our thinking is partly controlled (deliberate and conscious) and—more than most of us once supposed—partly *automatic* (effortless and without our awareness). Automatic thinking occurs not “on-screen” but off-screen, out of sight, where reason does not know. Consider:

- *Schemata*—mental templates—automatically, intuitively, guide our perceptions and interpretations of our experience. Whether we hear someone speaking of religious *sects* or *sex* depends not only on the word spoken but on how we automatically interpret the sound. As an old Chinese proverb says, “Two-thirds of what we see is behind our eyes.”
- Some *emotional reactions* are nearly instantaneous, before there is time for deliberate thinking. Simple likes, dislikes, and fears typically involve little reasoned analysis. Although our intuitive reactions sometimes defy logic, they may still be adaptive. Our ancestors who intuitively feared a sound in the bushes were usually fearing nothing, but they were more likely to survive to pass their genes down to us than their more deliberative cousins.
- Given sufficient *expertise*, people may intuitively know the answer to a problem. The situation cues information stored in their memory. Without knowing quite how we do it, we recognize our friend’s voice after the first spoken word of a phone conversation. Master chess players intuitively recognize meaningful patterns that novices miss.

- Some things—facts, names, and past experiences—we remember explicitly (consciously). But other things—skills and conditioned dispositions—we remember *implicitly*, without consciously knowing and declaring that we know. It's true of us all, but most strikingly evident in brain-damaged persons who cannot form new explicit memories. Thus, having learned how to solve a block-stacking puzzle or play golf, they will deny ever having experienced the task. Yet (surprisingly to themselves) they perform like practiced experts. If repeatedly shown the word *perfume* they won't recall having seen it. But if asked to guess a word you have in mind beginning with *per-*, they surprise themselves by intuitively knowing the answer.
- Equally dramatic are the cases of *blindsight*. Having lost a portion of the visual cortex to surgery or stroke, people may be functionally blind in part of their field of vision. Shown a series of sticks in the blind field, the patients report seeing nothing. After correctly guessing whether the sticks are vertical or horizontal, the patients are astounded when told, "You got them all right." Again, the patients know more than they know they know. There are, it seems, little minds—parallel processing units—operating unseen.
- *Prosopagnosia* patients suffer damage to a brain area involved in face recognition. They can see familiar people but are unable to recognize them as their spouses or children. Yet, shown pictures of such people, their heart knows them; its rate increases as their body shows signs of unconscious recognition.
- For that matter, consider your own taken-for-granted capacity to intuitively recognize a face. As you look at a photo, your brain breaks the visual information into subdimensions such as color, depth, movement, and form, and works on each aspect simultaneously before reassembling the components. Finally, somehow, your brain compares the perceived image with previously stored images. Voilà! Instantly and effortlessly, you recognize your grandmother. If intuition is immediately knowing something without reasoned analysis, perceiving is intuition par excellence.
- Although below our threshold for conscious awareness, *subliminal* stimuli may nevertheless have intriguing effects. Shown certain geometric figures for less than 0.01 second each, people will deny having seen anything more than a flash of light. Yet they will later express a preference for the forms they saw. Sometimes we intuitively feel what we cannot explain. Likewise, invisible flashed

words can *prime* or predispose our responses to later questions. If the word *bread* is flashed too briefly to recognize, we may then detect a flashed, related word such as *butter* more easily than an unrelated word such as *bottle*.

To repeat, many routine cognitive functions occur automatically, unintentionally, without awareness. Our minds function rather like big corporations. Our CEO—our controlled consciousness—attends to the most important or novel issues and assigns routine affairs to subordinates. This delegation of attentional resources enables us to react to many situations quickly, efficiently, *intuitively*, without taking limited time to reason and analyze.

The Limits of Our Inner Knowing: To Err Is Human

Although researchers affirm that unconscious information processing can produce flashes of intuition, they also detect grounds for humility. Elizabeth Loftus and Mark Klinger speak for today's cognitive scientists in reporting "a general consensus that the unconscious may not be as smart as previously believed."² For example, although subliminal stimuli can trigger a weak, fleeting response—enough to evoke a feeling, if not conscious awareness—there is no evidence that commercial subliminal tapes can powerfully "reprogram your unconscious mind" for success.

Moreover, our intuitive judgments err often enough to understand why poet T. S. Eliot would describe "The hollow man . . . Headpiece filled with straw." Social psychologists have explored our error-prone hindsight (our intuitive sense, after the fact, that we knew it all along). Other domains of psychology have explored our capacity for illusion—perceptual misinterpretations, fantasies, and constructed beliefs. Brain researchers have discovered that patients whose brain hemispheres have been surgically separated will instantly fabricate—and believe—explanations of puzzling behaviors. If the patient gets up and takes a few steps after the experimenter flashes the instruction "walk" to the patient's nonverbal right hemisphere, the verbal left hemisphere will instantly invent a plausible explanation ("I felt like getting a drink").

Illusory thinking also appears in the vast new literature on how we take in, store, and retrieve social information. As perception researchers study visual illusions for what they reveal about our normal perceptual mechanisms, social psychologists study illusory thinking for what it reveals about normal information processing, and about our

human limits. So let's explore how efficient information processing can go awry, beginning with our self-knowledge.

The Fallibility of Our Self-Understanding

"There is one thing, and only one in the whole universe which we know more about than we could learn from external observation," noted C. S. Lewis. "That one thing is [ourselves]. We have, so to speak, inside information; we are in the know."³

Indeed. Yet sometimes we *think* we know, but our inside information is wrong. This is the unavoidable conclusion of some fascinating recent research.

Explaining our behavior. Asked why we have felt or acted as we have, we produce plausible answers. Yet our self-explanations often err. Factors that have big effects we sometimes report as innocuous. Factors that have little effect we sometimes perceive as influential.

Richard Nisbett and Stanley Schachter demonstrated this by asking Columbia University students to take a series of electric shocks of steadily increasing intensity. Beforehand, some took a fake pill which, they were told, would produce heart palpitations, breathing irregularities, and butterflies in the stomach—the very symptoms that usually accompany being shocked. Nisbett and Schachter anticipated that people would attribute the symptoms of shock to the pill rather than to the shock. Thus they (more than people not given the pill) should tolerate shock. Indeed, the effect was enormous: people given the fake pill took four times as much shock.

When informed that they had taken more shock than average and asked why, their answers did not mention the pill. When pressed (even after the experimenter explained the experiment's hypotheses in detail), they denied the pill's influence. They would usually say that the pill probably did affect some people, but not them. A typical reply was "I didn't even think about the pill."

Sometimes people think they *have* been affected by something that has had no effect. Nisbett and Timothy Wilson had University of Michigan students rate a documentary film. While some of them watched, a power saw roared outside the room. Most people felt that this distracting noise affected their ratings. But it didn't; their ratings were similar to those of control subjects who viewed the film without distraction.

Predicting our behavior. We also frequently err in predicting our own behavior. Asked whether they would obey demands to deliver severe electric shocks or would hesitate to help a victim if several other people

were present, people overwhelmingly deny their vulnerability to such influences. But experiments have shown that many of us are vulnerable. Moreover, consider what Sidney Shrauger discovered when he had college students predict the likelihood of their experiencing dozens of different events during the ensuing two months (becoming romantically involved, being sick, and so forth): their self-predictions were hardly more accurate than predictions based on the average person's experience. Similarly, Robert Vallone and his colleagues had college students predict in September whether they would drop a course, declare a major, elect to live off campus next year, and so forth. Although, on average, the students felt 84 percent sure of these self-predictions, they erred nearly twice as often (29 percent of the time) as they expected. Even when feeling 100 percent sure of their predictions, they erred 15 percent of the time. Ergo, the surest thing we can say about your individual future is that it's hard for even you to predict. (The best advice is to look at your past behavior in similar situations—and be humble.)

Constructing memories. Do you agree or disagree that “memory can be likened to a storage chest in the brain into which we deposit material and from which we can withdraw it later if needed. Occasionally, something is lost from the ‘chest,’ and then we say we have forgotten.”

In one survey, about 85 percent of college students agreed. Actually, memories are not copies of experiences that remain on deposit in a memory bank. Rather, we construct our memories at the time of withdrawal. Memory involves backward reasoning. It infers what must have been, given what we now believe or know. Like a paleontologist inferring the appearance of a dinosaur from bone fragments, we reconstruct our distant past by combining fragments of information using our current expectations. Thus, we may unconsciously revise our memories to suit our current knowledge. When one of my sons complained, “The June issue of *Cricket* never came,” and was shown where it was, he delightedly responded, “Oh good, I knew I’d gotten it.”

Reconstructing past attitudes. Five years ago, how did you feel about nuclear power? about Bill Clinton? about your parents? If your attitudes have changed, do you know how much?

Experimenters have tried to answer such questions. The results have been unnerving: People whose attitudes have changed often insist that they have always felt much as they now feel. Daryl Bem and Keith McConnell took a survey among Carnegie-Mellon University students. Buried in it was a question concerning student control over the university curriculum. A week later the students agreed to write an essay op-

posing student control. After doing so, their attitudes shifted toward greater opposition to student control. When asked to recall how they had answered the question before writing the essay, they “remembered” holding the opinion that they *now* held and denied that the experiment had affected them. After observing Clark University students similarly denying their former attitudes, researchers D. R. Wixon and James Laird commented: “The speed, magnitude, and certainty” with which the students revised their own histories “was striking.”

Cathy McFarland and Michael Ross found that we also revise our recalled views of other people as our relationships with them change. They had university students rate their steady dating partners. Two months later, they rated them again. Those who had broken up were more likely to recall having recognized the partner as somewhat selfish and ill-tempered. Those who were more in love than ever had a tendency to recall love at first sight. Passions exaggerate.

It’s not that we are totally unaware of how we used to feel; it’s just that when memories are hazy, current feelings guide our recall. Parents of every generation bemoan the values of the next generation, partly because they misrecall their youthful values as being closer to their current values.

Reconstructing past behavior. Memory construction enables us to revise our own histories. Michael Ross, Cathy McFarland, and Garth Fletcher exposed some University of Waterloo students to a message convincing them of the desirability of toothbrushing. Later, in a supposedly different experiment, these students recalled brushing their teeth more often during the preceding two weeks than did students who had not heard the message. Likewise, when representative samples of Americans are asked about their cigarette smoking and their reports are projected to the nation as a whole, at least a third of the 600 billion cigarettes sold annually are unaccounted for. Noting the similarity of such findings to happenings in George Orwell’s *1984*—where it was “necessary to remember that events happened in the desired manner”—social psychologist Anthony Greenwald surmised that we all have “totalitarian egos” that revise the past to suit our present views.

Conclusions. “Know thyself,” urged the ancient Greek philosopher Thales. We try. But to a striking extent, we are often wrong about what has influenced us and what we will feel and do. Our intuitive self-knowledge errs.

This fact of life has two practical implications. The first is for psychological inquiry. Although the intuitions of clients or research sub-

jects may provide useful clues to their psychological processes, *self-reports are often untrustworthy*. Errors in self-understanding limit the scientific usefulness of subjective personal reports.

The second implication is for our everyday lives. The sincerity with which people report and interpret their experiences is no guarantee of the validity of these reports. Personal testimonies are powerfully persuasive, but they may also convey unwitting error. Keeping this potential for error in mind can help us feel less intimidated by others and less gullible. It beckons us to humility about our own self-knowledge, and a healthy skepticism about the self-knowledge of others.

Reasons for Unreason

The mixed picture of our intuitive self-knowledge is paralleled by the mixed picture of our rationality. On the one hand, what species better deserves the name *Homo sapiens*—wise humans? Our cognitive powers outstrip the smartest computers in recognizing patterns, handling language, and processing abstract information. Our information processing is also wonderfully efficient. With such precious little time to process so much information, we specialize in mental shortcuts. Scientists marvel at the speed and ease with which we form impressions, judgments, and explanations. In many situations, our snap generalizations—“That’s dangerous!”—are adaptive. They promote our survival.

But our adaptive efficiency has a trade-off; snap generalizations sometimes err. Our helpful strategies for simplifying complex information can lead us astray. To enhance our own powers of critical thinking, consider four reasons for unreason—common ways in which people form or sustain false beliefs.

1. *Our preconceptions control our interpretations.* A mountain of research shows that there is more to perception than meets the eye. An illustrative experiment by Robert Vallone, Lee Ross, and Mark Lepper revealed how powerful preconceptions can be. They showed pro-Israeli and pro-Arab students six network news segments describing the 1982 killing of civilian refugees at two camps in Lebanon. Each group perceived the networks as hostile to its side. The phenomenon is commonplace: presidential candidates and their supporters nearly always view the news media as unsympathetic to their cause; sports fans perceive referees as partial to the other side; people in conflict (married couples, labor and management, opposing racial groups) see impartial mediators as biased against them.

Our assumptions can also make ambiguous evidence seem supportive. For example, Ross and Lepper assisted Charles Lord in showing Stanford University students the results of two supposed new research studies. Half the students favored capital punishment, and half opposed it. One study confirmed and the other disconfirmed the students' beliefs about the deterrence effect of the death penalty. Both proponents and opponents of capital punishment readily accepted evidence that confirmed their belief but were sharply critical of disconfirming evidence. Showing the two groups an *identical* body of mixed evidence had therefore not narrowed their disagreement but *increased* it. Each side perceived the evidence as supporting its belief and now believed even more strongly.

Is this why, in politics, religion, and science, ambiguous information often fuels conflict? Presidential TV debates in the United States have mostly reinforced predebate opinions. By nearly a 10 to 1 margin, those who already favored one candidate or the other in the 1960, 1976, and 1980 debates perceived their candidate as having won.

2. *We overestimate the accuracy of our judgments.* The intellectual conceit evident in our judgments of our past knowledge ("I knew it all along") extends to estimates of our current knowledge. Daniel Kahneman and Amos Tversky gave people factual questions and asked them to fill in the blanks, as in: "I feel 98 percent certain that the air distance between New Delhi and Beijing is more than ____ miles but less than ____ miles."

Most subjects were overconfident: about 30 percent of the time, the correct answers lay outside the range they felt 98 percent confident about. Baruch Fischhoff and his colleagues discovered the same "overconfidence phenomenon" when people rated their certainty about their answers to multiple-choice questions, such as: "Which is longer: (a) the Panama Canal or (b) the Suez Canal?" If people 60 percent of the time answer such a question correctly, they will typically *feel* about 75 percent sure. (Answers: New Delhi is 2500 miles from Beijing. The Suez Canal is twice as long as the Panama Canal.)

Overconfidence also permeates everyday decision making. Investment experts market their services with the confident presumption that they can beat the stock market average, forgetting that for every stockbroker or buyer saying, "Sell!" at a given price there is another saying, "Buy!" A stock's price is the balance point between these mutually confident judgments. Thus, incredible as it may seem, economist Burton Malkiel reports that mutual fund portfolios selected by investment analysts do *not* outperform randomly selected stocks.

3. *We often are swayed more by anecdotes than statistical facts.* Anecdotal information is persuasive. Researchers Richard Nisbett and Eugene Borgida explored the tendency to overuse anecdotal information by showing University of Michigan students videotaped interviews of people who supposedly had participated in an experiment in which most subjects failed to assist a seizure victim. Learning how *most* subjects acted had little effect upon people's predictions of how the individual they observed acted. The apparent niceness of this individual was more vivid and compelling than the general truth about how most subjects really acted: "Ted seems so pleasant that I can't imagine him being unresponsive to another's plight." This illustrates the "base-rate fallacy": focusing upon the specific individual can push into the background useful information about the population the person came from.

There is, of course, a positive side to viewing people as individuals and not merely as statistical units. The problem arises when we formulate our beliefs about people in general from our observations of particular persons. Focusing on individuals distorts our perception of what is generally true. Our impressions of a group, for example, tend to be overinfluenced by its extreme members. One man's attempt to assassinate President Reagan caused people to bemoan, "It's not safe to walk the streets anymore," and to conclude, "There's a sickness in the American soul." As the psychologist Gordon Allport put it, "Given a thimbleful of facts we rush to make generalizations as large as a tub."

Because vivid anecdotes are more compelling than base-rate statistical information, perceived risk is often badly out of joint with the real risks of things. News footage of airplane crashes are vivid memories for most of us. This misleads people to suppose that they are more at risk traveling in a commercial airplane than in a car. Actually, U.S. travelers during the 1980s were twenty-six times more likely to die in a car crash than on a commercial flight covering the same distance.

Or consider this: three jumbo jets full of passengers crashing every day would not equal tobacco's deadly effects. If the deaths caused by tobacco occurred in horrible accidents, the resulting uproar would long ago have eliminated cigarettes. Because, instead, the deaths are disguised as "cancer" and "heart disease" and diffused on obituary pages, we hardly notice. Thus, rather than eliminating the hazard, the U.S. government continues to subsidize the tobacco industry's program for quietly killing its customers. The point: dramatic events stick in our minds, and we use ease of recall when predicting the likelihood of something happening.

4. *We misperceive correlation and control.* Another influence on everyday thinking is our search for order in random events, a tendency that can lead us down all sorts of wrong paths. It's easy to see a correlation—an "illusory correlation"—where none exists. As part of their research with the Bell Telephone Laboratories, William Ward and Herbert Jenkins showed people the results of a hypothetical fifty-day cloud-seeding experiment. They told their subjects which of the fifty days the clouds had been seeded and which days it rained. This information was nothing more than a random mix of results: sometimes it rained after seeding; sometimes it didn't. People nevertheless became convinced—in conformity with their supposition about the effects of cloud seeding—that they really had observed a relationship between cloud seeding and rain.

If we believe a correlation exists, we are more likely to notice and recall confirming instances. If we believe that premonitions correlate with events, we notice and remember the joint occurrence of the premonition and the later occurrence of that event. We seldom notice or remember all the times unusual events do not coincide. If, after we think about a friend, the friend calls us, we notice and remember this coincidence more than all the times we think of a friend without any ensuing call, or receive a call from a friend about whom we have *not* been thinking. Thus, we easily overestimate the frequency with which these strange things happen.

Infertile couples who adopt, it is popularly theorized, finally relax—and conceive. But no such theory is necessary, because it isn't so. Although researchers have found no correlation between adoption and conception, our attention is drawn to couples who have conceived after adopting (rather than to those who conceive before adopting or who don't conceive after adopting). Thus we easily misperceive random events as confirming our hunches.

Our tendency to perceive random events as related feeds an "illusion of control"—the idea that chance events are subject to our influence. This is what keeps gamblers going, and what makes the rest of us do all sorts of silly things. During the 1988 summer drought, for example, retired farmer Elmer Carlson arranged a rain dance by sixteen Hopi in Audubon, Iowa. The next day it rained one inch. "The miracles are still here, we just have to ask for them," explained Carlson (Associated Press, 1988).

Ellen Langer demonstrated the illusion of control with experiments on gambling. People readily believed they could beat chance.

Compared to those given an assigned lottery number, people who chose their own lottery number demanded four times as much money when asked for how much they would sell their ticket. When playing a game of chance against an awkward and nervous person, they bet significantly more than when playing against a dapper, confident opponent. Given some unusual early successes in a chance situation, they often discounted later failures. In these and other ways, Langer consistently found people acting as if they could control chance events.

Real-life gamblers also exhibit an illusion of control. Dice players may throw softly for low numbers and hard for high numbers. The gambling industry thrives on gamblers' illusions. Gamblers hope that they can beat the laws of chance sustain their gambling. Gamblers attribute wins to their skill and foresight. Losses become "near misses" or "flukes"—perhaps (for the sports gambler) a bad call by the referee or a freakish bounce of the ball.

Conclusions

We could extend our list of reasons for unreason, but surely this has been a sufficient glimpse at how people come to believe what may be untrue. We can't easily dismiss these experiments: most of the participants were intelligent people, mostly students at leading universities. Moreover, these distortions and biases occurred even when payment for right answers motivated people to think optimally. As one researcher concluded, the illusions "have a persistent quality not unlike that of perceptual illusions."

Research in cognitive social psychology thus mirrors the mixed review given humanity in literature, philosophy, and religion. Many research psychologists have spent lifetimes exploring the awesome capacities of the human mind. We are smart enough to have cracked our own genetic code, to have invented talking computers, to have sent people to the moon. Moreover, our intuitive hunches—our efficient mental shortcuts—generally are adaptive. "The mind works in the overwhelmingly large part to do or die, not to reason or to know why," notes Robert Ornstein. "There has never been, nor will there ever be, enough time to be truly rational."⁴ Three cheers for intuition.

Well, two cheers—because the mind's priority on efficiency makes our intuition more vulnerable to error than we suspect. With remarkable ease, we form and sustain false beliefs. Led by our preconceptions, overconfident of our judgments, persuaded by vivid anecdotes, per-

ceiving correlations and control where none exists, we construct our idea of the social world around us. “The naked intellect,” observed the novelist Madeleine L’Engle, “is an extraordinarily inaccurate instrument.” And that is why, rather than trusting our unaided intuition, we do science. Science always involves an interplay between intuition and rigorous test, between creative hunch and skepticism. To sift reality from illusion requires both open-minded curiosity and hardheaded rigor. This perspective disposes a healthy attitude for approaching all of life: to be critical but not cynical, curious but not gullible, open, but not exploitable—in a word, to be humble.

The New Psychology of Pride

We are all so blinded and upset by self-love that everyone imagines he has a just right to exalt himself, and to undervalue all others in comparison to self.

If God has bestowed on us any excellent gift, we imagine it to be our own achievement, and we swell and even burst with pride.

—JOHN CALVIN

Golden Booklet of the True Christian Life

Is it nevertheless true, what the pop psychology of our age tells us: that in an important sense most of us suffer from *excessive* humility—a condition commonly called *low* self-esteem? A generation ago, the humanistic psychologist Carl Rogers concluded that most people he knew “despise themselves, regard themselves as worthless and unlovable.”⁵ Many proponents of humanistic psychology have concurred. “All of us have inferiority complexes,” contended John Powell.⁶ “Those who seem not to have such a complex are only pretending.” As Groucho Marx jested, “I don’t want to belong to any club that would accept me as a member.”⁷

Actually, most of us have a good reputation with ourselves. In studies of self-esteem, even low-scoring people respond in the midrange of possible scores. (A “low”-self-esteem person responds to such statements as “I have good ideas” with a qualifier such as “somewhat” or “sometimes.”) Moreover, one of social psychology’s most provocative yet firmly established conclusions concerns the potency of *self-serving bias*. Pride prevails.

Explanations for Positive and Negative Events

Time and again, experimenters have found that people readily accept credit when told they have succeeded (attributing the success to their ability and effort), yet attribute failure to such external factors as bad luck or the problem's inherent "impossibility." Similarly, in explaining their victories, athletes commonly credit themselves, but attribute losses to something else: bad breaks, bad referee calls, or the other team's supereffort or dirty play. And how much responsibility do you suppose car drivers tend to accept for their accidents? On insurance forms, drivers have described their accidents in words such as these: "An invisible car came out of nowhere, struck my car and vanished"; "As we reached an intersection, a hedge sprang up, obscuring my vision and I did not see the other car"; "A pedestrian hit me and went under my car." Situations that combine skill and chance (games, exams, job applications) are especially prone to the phenomenon: winners can easily attribute their successes to their skill, while losers can attribute their losses to chance. When I win at Scrabble, it's because of my verbal dexterity; when I lose, it's because, "Who could get anywhere with a *Q* but no *U*?"

Michael Ross and Fiore Sicoly observed a marital version of self-serving bias. They found that young married Canadians usually felt they took more responsibility for such activities as cleaning the house and caring for the children than their spouses credited them for. In a survey of Americans, 91 percent of wives but only 76 percent of husbands credited the wife with doing most of the food shopping. In another study, husbands estimated they did slightly more of the housework than their wives did; the wives, however, estimated their efforts were more than double their husbands'. Small wonder that divorced people usually blame their partner for the breakup, or that managers usually blame poor performance on workers' lack of ability or effort. (Workers are more likely to blame something external—inadequate supplies, excessive workload, difficult coworkers, ambiguous assignments.) Such findings bring to mind Adam's excuse: "The woman whom you gave to be with me, she gave me fruit from the tree, and I ate."

Can We All Be Better Than Average?

Self-serving bias also appears when people compare themselves to others. If the sixth-century B.C.E. Chinese philosopher Lao-tzu was right that "at no time in the world will a man who is sane over-reach him-

self, over-spend himself, over-rate himself," then most of us are a little insane. For on nearly any dimension that is both *subjective* and *socially desirable*, most people see themselves as better than average. Consider:

- Most businesspeople see themselves as more ethical than the average businessperson. Ninety percent of business managers rate their performance as superior to their average peer.
- In Australia, 86 percent of people rate their job performance as above average, 1 percent as below average.
- Most drivers—even most drivers who have been hospitalized for accidents—believe themselves to be safer and more skilled than the average driver.
- Most people perceive themselves as more intelligent than their average peer, as better looking, and as less prejudiced than others in their communities.
- Most adults believe they support their aging parents more than do their siblings.
- Los Angeles residents view themselves as healthier than most of their neighbors, and most college students believe they will outlive their actuarially predicted age of death by about ten years.

Every community, it seems, is like Garrison Keillor's fictional Lake Wobegon, where "all the women are strong, all the men are good-looking, and all the children are above average." Although 12 percent of people feel old for their age, many more—66 percent—think they are young for their age. All of which calls to mind Freud's joke about the man who told his wife, "If one of us should die, I think I would go live in Paris."

Subjective dimensions (such as "disciplined") trigger greater self-serving bias than objective behavioral dimensions (such as "punctual"). Students are more likely to rate themselves superior in "moral goodness" than in "intelligence." This is partly because subjective qualities give us so much leeway in constructing our own definitions of success. Rating my "athletic ability," I ponder my basketball play, not the agonizing weeks I spent as a Little League baseball player hiding in right field. Assessing my "leadership ability," I conjure up an image of a great leader whose style is similar to mine. By defining ambiguous criteria in our own terms, each of us can see ourselves as relatively successful. In one College Entrance Examination Board survey of 829,000 high school seniors, *zero* percent rated themselves below average in

“ability to get along with others” (a subjective, desirable trait), 60 percent rated themselves in the top 10 percent, and 25 percent saw themselves among the top 1 percent!

We also support our self-image by assigning importance to the things we’re good at. Over a semester, those who ace an introductory computer science course come to place a higher value on their identity as a computer-literate person in today’s world. Those who do poorly are more likely to scorn computer geeks and to exclude computer skills as pertinent to their self-image.

Unrealistic Optimism

What is more, many of us have what researcher Neil Weinstein terms “an unrealistic optimism about future life events.”⁸ At Rutgers University, for example, students perceive themselves as far more likely than their classmates to get a good job, draw a good salary, and own a home, and as far less likely to experience negative events, such as developing a drinking problem, having a heart attack before age forty, or being fired. In Scotland, most late adolescents think they are much less likely than their peers to become infected by the AIDS virus. After experiencing the 1989 earthquake, San Francisco Bay-area students did lose their optimism about being less vulnerable than their classmates to injury in a natural disaster, but within three months their illusory optimism had rebounded. “Views of the future are so rosy,” notes the social psychologist Shelley Taylor, “that they would make Pollyanna blush.”⁹

Illusory optimism increases our vulnerability. Believing ourselves immune to misfortune, we do not take sensible precautions. Most young Americans know that half of U.S. marriages end in divorce but persist in believing that *theirs* will not. Sexually active undergraduate women who don’t consistently use contraceptives perceive themselves, compared to other women at their university, as much *less* vulnerable to unwanted pregnancy. Those who cheerfully shun seat belts, deny the effects of smoking, and stumble into ill-fated relationships remind us that blind optimism, like pride, may go before a fall.

Optimism beats pessimism in promoting self-efficacy and persistence when facing initial failure. Nevertheless, a dash of pessimism can save us from the perils of unrealistic optimism. Self-doubt can energize students, most of whom exhibit excess optimism about upcoming exams. Students who are overconfident tend to under prepare. Their equally able but more anxious peers, fearing that they are going to

bomb the upcoming exam, study furiously and get higher grades. The moral: success in school and beyond requires enough optimism to sustain hope and enough pessimism to motivate concern.

False Consensus and False Uniqueness

We have a curious tendency to further enhance our self-image by overestimating or underestimating the extent to which others think and act as we do—a phenomenon called the *false consensus effect*. On matters of *opinion*, we find support for our positions by overestimating the extent to which others agree. If we favor a Canadian referendum or support New Zealand's National Party, we wishfully overestimate the extent to which others agree. When we behave badly or fail in a task, we reassure ourselves by thinking that such lapses are common. We guess that others think and act as we do: "I do it, but so does everyone else." If we cheat on our income taxes or smoke, we are likely to overestimate the number of other people who do likewise.

One might argue that false consensus occurs because we generalize from a limited sample, which prominently includes ourselves. But on matters of *ability* or when we behave well or successfully, a *false uniqueness effect* more often occurs. We serve our self-image by seeing our talents and moral behaviors as relatively unusual. Thus, those who drink heavily but use seat belts will *overestimate* (false consensus) the number of other heavy drinkers and *underestimate* (false uniqueness) the commonality of seat belt use. Simply put, people see their failings as normal, their virtues as rare.

Other Self-Serving Tendencies

These tendencies toward self-serving attributions, self-congratulatory comparisons, and illusory optimism are not the only signs of favorably biased self-perceptions. Consider more:

- Most of us overestimate how desirably we would act in a given situation.
- We also display a "cognitive conceit" by overestimating the accuracy of our beliefs and judgments, and by misremembering our own past in self-enhancing ways.
- If an undesirable act cannot be misremembered or undone, then we often justify it.
- The more favorably we perceive ourselves on some dimension (intelligence, persistence, sense of humor), the more we use that dimension as a basis for judging others.

- If a test or some other source of information—even a horoscope—flatters us, then we believe it, and we evaluate positively both the test and any evidence suggesting that the test is valid.
- Most university students think the SAT (Scholastic Assessment Test) underestimated their ability. (In fact, however, the higher scores they *think* they deserved would *less* accurately predict their obtained grades.)
- Judging from photos, we not only guess that attractive people have desirable personalities, we also guess that they have personalities more like our own than do unattractive people.
- We like to associate ourselves with the glory of others' success. If we find ourselves linked with (say, born on the same day as) some reprehensible person, we boost ourselves by softening our view of the rascal.

So, is pop psychology right that most people suffer from excessive humility and insufficient self-love? *Many* streams of evidence suggest otherwise. To paraphrase Elizabeth Barrett Browning, "How do I love me? Let me count the ways!"

Reflections on Self-Serving Pride

No doubt many readers are finding all this either depressing or contrary to their own occasional feelings of inadequacy. To be sure, most of us who exhibit the self-serving bias may still feel inferior to specific individuals, especially those who are a step or two higher on the ladder of success, attractiveness, or skill. And not everyone operates with a self-serving bias. Some people *do* suffer from low self-esteem. Do such people hunger for esteem and therefore often exhibit self-serving bias? Is self-serving bias just a cover-up?

It's true: when feeling good about ourselves and unthreatened, we are less defensive and judgmental—less likely to inflate those who like us and berate those who don't. In experiments, people whose self-esteem is temporarily bruised—say, by being told they did miserably on an intelligence test—are more likely to disparage others. More generally, people who are down on themselves tend also to be down on others. Mockery says as much about the mocker as the one mocked.

Nevertheless, high self-esteem goes hand in hand with self-serving perceptions. Those who score highest on self-esteem tests (who say nice things about themselves) also say nice things about themselves when explaining their successes and failures, when evaluating their group, and when comparing themselves to others.

Although self-serving pride helps protect us from depression, it can at times be maladaptive. When challenged or insulted, people with inflated egos are at greatest risk for violence. Moreover, people who blame others for their social difficulties are often unhappier than people who can acknowledge their mistakes. Research by Barry Schlenker has also shown how self-serving perceptions can poison a group. In nine experiments at the University of Florida Schlenker had people work together on some task. He then falsely informed them that their group had done either well or poorly. In every one of these studies, the members of successful groups claimed more responsibility for their group's performance than did members of groups that supposedly failed at the task. Most presented themselves as contributing more than the others in their group when the group did well; few said they contributed less.

Such self-deception can lead individual group members to expect greater-than-average rewards when their organization does well and less-than-average blame when it does not. If most individuals in a group believe they are underpaid and underappreciated relative to their contributions, disharmony and envy are likely. College presidents and academic deans will readily recognize the phenomenon. Ninety percent or more of college faculty members rate themselves as superior to their average colleague (no excessive humility on campus!). It is therefore inevitable that when merit salary raises are announced and half receive an average raise or less, many will feel themselves victims of injustice.

Biased self-assessments also distort managerial judgment. When groups are comparable, most people consider their own group superior. Thus, most corporation presidents predict more growth for their own firms than for their competition. And most production managers overpredict their production. Such overoptimism can produce disastrous consequences. If those who deal in the stock market or in real estate perceive their business intuition to be superior to that of their competitors, they may be in for severe disappointment. Even the seventeenth-century economist Adam Smith, a defender of human economic rationality, foresaw that people would overestimate their chances of gain. This "absurd presumption in their own good fortune," he said, arises from "the overweening conceit which the greater part of men have of their own abilities."¹⁰

That people see themselves with a favorable bias is hardly new. The tragic flaw portrayed in ancient Greek drama was *hubris*, or pride. Like

the subjects of our experiments, the Greek tragic figures were not self-consciously evil; they merely thought too highly of themselves. In literature, the pitfalls of pride are portrayed again and again. In religion, pride has long been first among the “seven deadly sins.” Much as social psychologists observe self-serving, self-justifying biases clouding our self-understanding, biblical writers suggest that becoming aware of our sin is like trying to see our own eyeballs. “Who can detect their errors?” the Psalmist (19:12) wondered. Thus the Pharisee could thank God “that I am not like other men” (and we can thank God that we are not like the Pharisee). The apostle Paul must have had this self-righteous tendency in mind when he admonished the Philippians (2:3) to “in humility count others better than yourselves.”

Paul assumed that our natural tendency is to count ourselves better than others, just as he assumed self-love when he argued that husbands should love their wives as their own bodies, and just as Jesus assumed self-love when commanding us to love our neighbors as we love ourselves. The Bible neither teaches nor opposes self-love; it takes it for granted.

The Bible does, however, warn us against self-righteous pride—pride that alienates us from God and leads us to disdain one another. Such pride is at the core of racism, sexism, nationalism, and all the chauvinisms that lead one group of people to see themselves as more moral, deserving, or able than another. The flip side of being proud of our individual and group achievements, and taking credit for them, is blaming the poor for their poverty and the oppressed for their oppression.

Samuel Johnson recognized this in one of his eighteenth-century *Sermons*: “He that overvalues himself will undervalue others, and he that undervalues others will oppress them.” The Nazi atrocities were rooted not in self-conscious feelings of German inferiority but in Aryan pride. The arms race was fed by a national pride that enabled each nation to perceive its own motives as righteously defensive, the other’s as hostile. The apostle of positive thinking, Dale Carnegie, foresaw the danger in 1936: “Each nation feels superior to other nations. That breeds patriotism—and wars.”¹¹

For centuries, pride has therefore been considered the fundamental sin, the original sin. Vain self-love corrodes human community and erodes our sense of dependence on one another and on God. If I seem confident about the pervasiveness and potency of pride, it is not because we have invented a new idea, but rather because the new findings reaffirm a very old idea.

All this, to be sure, is not the whole story. As Pascal taught, no single truth is ever sufficient, because the world is not simple. Any truth separated from its complementary truth is a half-truth. Although it is true that self-serving pride is prevalent and at times socially perilous, it also is true that healthy self-esteem, feelings of control, and a positive optimism pay dividends. There is a power to possibility-filled positive thinking. But that story is for another bedtime.

Finally, if pride is akin to the self-serving bias, then what is humility? Is it self-contempt? Or can we be self-affirming and self-accepting without a self-serving bias? To paraphrase C. S. Lewis, humility is not handsome people trying to believe they are ugly and clever people trying to believe they are fools. (False modesty can actually be a cover for pride in one's better-than-average humility.) True humility is more like self-forgetfulness than false modesty. As Dennis Voskuil has written, the refreshing gospel promise is "not that we have been freed by Christ to love ourselves, but that we are free from self-ession. Not that the cross frees us *for* the ego trip but that the cross frees us *from* the ego trip."¹² This leaves people free to rejoice in their special talents and, with the same honesty, to recognize others.

Obviously, true humility is a state not easily attained. "If anyone would like to acquire humility," offered C. S. Lewis, "I can, I think, tell him the first step. The first step is to realize that one is proud. And a biggish step, too." The way to take this first step, continued Lewis, is to glimpse the greatness of God and see oneself in light of it. "He and you are two things of such a kind that if you really get into any kind of touch with Him you will, in fact be humble, feeling the infinite relief of having for once got rid of the pretensions which [have] made you restless and unhappy all your life."¹³

To be self-affirming yet self-forgetful, positive yet realistic, grace-filled and unpretentious—that is the Christian vision of abundant life, a life epitomized by my friend John Marks Templeton.

Notes

This chapter draws from D. G. Myers, *Social Psychology*, 6th ed. (New York: McGraw-Hill, 1999), which documents the research described here, and from D. G. Myers, "Humility: Theology Meets Psychology," *Reformed Review* 48 (1995): 195–206.

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