Laughter
A SCIENTIFIC INVESTIGATION
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Laughter

pain-inducing (Poetics). Aristotle appreciated the effect of the unexpected in triggering laughter, an idea that was not pursued again for almost two millennia until the work of Kant and Schopenhauer.

Aristotle differs from Plato in believing that a little tasteful laughter is a desirable thing. Although one does not want to become a laughless boor, Aristotle cautions that we should nonetheless avoid too much of a good thing. “Those who go into excess in making fun appear to be buffoons and vulgar” (Nicomachean Ethics). Aristotle was also concerned with the use and abuse of laughter to persuade, discredit, and control. In Rhetoric, Aristotle cites the fifth-century Sicilian philosopher Gorgias (483–375 B.C.) who notes that jest is effective in killing an opponent’s earnestness. Conversely, earnestness kills jesting.

Thomas Hobbes (1588–1679) builds upon Plato’s and Aristotle’s notion that laughter is associated with superiority over others. Given Hobbes’s position in Leviathan that humanity is engaged in a constant struggle for power, it is not surprising that he awards laughter to the victor. In one of the best known quotations in the humor literature, Hobbes states that laughter is the expression of a “sudden glory” (italics mine) arising from some sudden conception of some eminency in ourselves, by comparison with the infirmity of others, or with our own formerly” (Human Nature). Hobbes offers laughter as victorious crowing, the vocal equivalent of a triumphant flamenco dance stomped out on the chests of fallen adversaries. There is strong precedent for laughter as Hobbesian sudden glory, an expression borrowed by Barry Sanders for the title of his fresh historical treatment of laughter in literature and philosophy.

As we grapple with Hobbes and his predecessors concerning their view of laughter as derisive, it is helpful to remember that we are looking back to times when “good taste,” “good manners” and “good form” were based on standards that were very different from today’s—to times when the rich and powerful employed fools, physical deformity was a legitimate source of amusement, and the social elite might entertain themselves by visiting insane asylums to taunt the inmates. Even torture and executions were public events often conducted in a carnival atmosphere complete with snacks and refreshments. Upper and lower classes alike could revel in the knowledge that there were always those pathetic few who were less fortunate than themselves.

As social standards slowly evolved, the upper and then the lower classes adopted more contemporary views about what constituted proper targets of laughter, but even today we need not look far for evidence of laughter’s darker, rowdier heritage. Contemporary comedians “kill” their audience with great jokes and “own” the crowd when their humor is well-received. In a vicarious form, we savor the crass, the grotesque and the vulgar in forms as diverse as Rabelais’s Gargantua and Pantagruel, commedia dell’arte, Punch and Judy, The Three Stooges, and even in opera (see Chapter 4). What has become rare in the practice of daily life is perpetuated in literature and the arts.

We turn now to the more cognitive musings of Immanuel Kant (1724–1804), who, in the Critique of Judgement, states: “Laughter is an affection arising from the sudden transformation of a strained expectation into nothing” (i.e., with the delivery of the punch line of a joke, our expectation of how it will proceed vanishes). In this transformation, the strained expectation “does not transform itself into the positive opposite of an expected object—for then there would still be something, which might even be a cause of grief—but it must be transformed into nothing.”

Arthur Schopenhauer (1788–1860), another earnest German with a cognitive position, further develops this idea, which has become known as the Incongruity Theory. To Schopenhauer, laughter arises from the perceived mismatch between the physical perception and abstract representation of some thing, person, or action, a concept that dates back to Aristotle. Our success at incongruity detection is celebrated with laughter.

Overflow or relief theorists offer a more physiological “hydraulic” perspective, viewing laughter as relieving an accumulation of nervous energy. Sigmund Freud (1856–1939) offers the best-developed relief theory in his Jokes and Their Relation to the Unconscious. He
Laughter posits that all laugh-producing situations are pleasurable because they save psychic energy. Humor brings pleasure because it spares expenditure of feeling, comedy because it spares expenditure of ideas, and joking because it spares expenditure of inhibition. This excess, "spared," energy is relieved in the act of laughter, which serves as a kind of safety valve. As expected from the creator of psychoanalysis, Freud concludes that jokes are more than they seem. (Freud is credited with observing, "Sometimes a cigar is only a cigar." But can a joke ever be "only a joke?") Jokes, like dreams, have hidden benefits; both permit us to tap buried sources of pleasure because they permit access to the unconscious. As we will see in the next chapter, laughter is indeed a key to an "unconscious," but one very different than that envisioned by Freud.

Our tour down the philosophical path ends with the socially oriented contemplations of Henri Bergson (1859-1941) in Laughter: An Essay on the Meaning of the Comic. Although showing clear symptoms of philosopher's disease—an overly optimistic estimate of the power of naked reason and a dependence on anecdotal evidence—Bergson contributes the significant insight that all laughter is inherently social. To him, laughter loses its meaning and disappears outside of the context of the group, a position supported by current research. Bergson also suggests that laughter is a means of forcing compliance to group norms through humiliation ("ragging"). Most of us have, in fact, laughed at social outliers, although as we shall see, we probably do not consciously choose to act this way.

Curiously, Bergson suggested that an "absence of feeling" had to accompany laughter—to have an effect, the comic must fall on the surface of a "calm and unruffled" soul. This counterintuitive emphasis of the intellectual over the emotional neglects laughter's biological heritage in physical play, for we know now that the act of laughter is certain to have evolved before the cognitive and linguistic capacity to understand a joke, or even visual "slapstick" humor. Bergson adds that for something to be funny, it must be human; animals or inanimate objects become funny only in proportion to the degree that they remind us of something human. Bergson's examples include a puppet on strings and a jack-in-the-box. Our own experience confirms this, as we typically find the antics of humanlike capuchin monkeys funnier than those of such relatively inexpressive creatures as lizards, with their firmly sculpted facial visage. And cartoon figures from Bugs Bunny to Wile E. Coyote are funny largely because of their human appearance, motives, and actions. Less obvious is Bergson's suggestion that humans become funny in proportion to the degree that they can emulate machines. As he says, the laughable is "something mechanical encrusted upon the living." Is the visual comedy of Buster Keaton so effective because his expressionless face is incongruous with his otherwise human body and chaotic scenarios?

To portray the style and weakness of "science" by wit and anecdote, note Arthur Koestler's (The Act of Creation) attack on Bergson's position: "If we laugh each time a person gives us the impression of being a thing, there would be nothing more funny than a corpse." (Imagine, however, a mechanized corpse greeting guests at a "viewing" by sitting up in its casket and offering a prerecorded "Don't I look lifelike?" Is this not a thing acting like a person? Although this scenario is admittedly beyond ordinary experience, horrifying, and of questionable taste, it would fit nicely in a dark comedy about the funeral industry in the spirit of Evelyn Waugh's The Loved One.) John Morreall, a philosopher, challenges Bergson's idea that all laughter has a social basis by noting that "if I find a bowling ball in my refrigerator, I may find this incongruous situation funny, even though I do not see the ball as a person." Yes, but might you be laughing at whomever put the ball in the refrigerator?

The writings about laughter from which this sample was selected are bewildering in their mass and variety. There is something for every taste, including laughter in rhetoric and oratory (Cicero, Quintilian), literary analyses of what humor is and should be (Ben Jonson), how humor should be used, evolutionary theory (Darwin), archaic physiology (Descartes, Joubert, Spencer), and probes into intrapsychic events (Freud). Surveys of this literature are complicated because different authors of different professions communi-
cate with different terminology in different languages over great
gulfs of time. The most readily apparent feature of this theorizing is
that most of it is really about humor or comedy (i.e., material that
stimulates laughter), not laughter itself. This laughterless study of
laughter continues to the present day.

Another problem with these very reasonable philosophical analy­
ses becomes apparent when you ask, “What do I do next?,” or “How
do I decide between equally plausible positions?” Too often, there is
no “next,” no critical experiment or observation that might bring in­
sight and understanding, or resolve disputes between opposing
camps. There is only an endless battle between dueling essayists
and the churning of the same familiar material. An even more seri­
ous flaw of philosophical analysis is its tacit and unfounded assump­
tion of the “rational person” hypothesis—namely, its common sense
but incorrect premise that the decision to laugh is a reasoned, con­
scious choice. Common sense does not always serve us well in the
surprising and sometimes counterintuitive world of laughter. Philo­
sophical inquiries also fail because they are too far removed from
the phenomenal world they seek to explain.

In contrast to the long tradition of philosophical analysis, the history
of empirically based laughter and humor science is little more than
100 years old. Laughter and humor research appeared gradually and
sporadically, roughly paralleling the emergence of experimental
psychology in the late nineteenth century. With the turning inward
of the scientific method to study mental life came incidental empir­
ical reports that joined the always substantial popular literature
about laughter and humor. G. Stanley Hall, a founder of American
psychology, contributed a questionnaire-based study of tickle in
1897. Other scattered contributions to laugh science included an
introspective analysis of the humorous (Martin, 1905), memory
for funny material (Heim, 1936), laugh-provoking stimuli (Kamboropoulou,
1930), children’s laughter (Kenderdine, 1931; Ding and
Jersild, 1932; Justin, 1932), and studies of laughter development
(Washburn, 1924; Wilson, 1931), a line of research that began with
the anecdotal reports of Charles Darwin (1872, 1877). Separate but
significant lines of inquiry were pursued in the clinical case studies
of neurology (Wilson, 1924) and psychiatry (Kraepelin, in De­
defendorf, 1904; Bleuler, 1911, 1916). As the study of laughter and hu­
mor matured, systematic observation and experimentation gradually
replaced introspection and the collection of anecdotes. But the
sparse research never reached critical mass. During most of the
twentieth century, isolated researchers were left to their own de­
vices, toiling alone.

The pace of research accelerated during the 1970s and 1980s
when organizational and scholarly advances brought a semblance of
structure and direction to professional and amateur students of
laughter; a motley horde of philosophers, physicians, nurses, anthro­
pologists, linguists, psychologists, physiologists, English professors,
cartoonists, comics, and clowns. These decades featured the forma­
tion of the International Society of Humor Studies and its journal
Humor, the now yearly International Humor Conferences, and the
publication of books that assembled previously scattered work. Such
books quickly became “classics” and have aged rather well, a mea­
sure of the leisurely pace of the field. Enthusiasm for laughter/hu­
mor studies was further stimulated by the publication in 1979 of
Norman Cousins’s book Anatomy of an Illness as Perceived by the
Patient. Cousins’s evangelism for the health benefits of laughter trig­
ger a movement that continues to this day.

Like the work of the philosophers, however, laughter research
was not born whole—once again, laughter itself was often missing.
Most laughter research neglects laughter and its occurrence in
everyday life, focusing instead on a variety of corollary issues about
humor, personality, social dynamics, and cognition. A few repre­
sentative studies illustrate the point.

Hans Eysenk asked why one person likes crude jokes, while an­
other prefers more subtle comic fare. On the basis of ratings pro­
vided by his subjects, he concluded that extroverts preferred sexual
and simple jokes, while introverts preferred nonsexual and more
complex humor. In another study, Herbert Lefcourt examined the relation between humor style and "locus of control," a person's perception of whether he was in control of his own destiny ("internalizers") or the victim of circumstance ("externalizers"). Internalizers used all types of humor more than the externalizers, who engaged mostly in "superiority" or "tension relief" forms. Other psychological studies have evaluated the role of incongruity in jokes or shown that we laugh more when bad things happen to obnoxious than to pleasant people, evidence of the aggressive roots of humor.

As interesting and worthy as such studies may be, they again only peripherally concern laughter, focusing instead on humor and ancillary issues about theories of personality (e.g., introversion/extroversion, locus of control), social dynamics (e.g., social facilitation, deindividuation, release constraint mediated by imitation), laughter's precursors and consequences, health benefits, what makes jokes funny (e.g., incongruity), or why we laugh at jokes (e.g., aggression). This book redresses this historical imbalance by putting the act of laughter front and center.

Good science is simplification, and in this spirit we begin the study of laughter by focusing on laughter itself, instead of its correlates, applications, or theoretical implications. And like good journalists, we start with the "who," "what," "when," and "where" of laughter, the small but sure empirical steps that guide us, haltingly, toward the core of our social being. We avoid the traditional introspective and commonsense approaches that are ill-equipped to reveal the unconscious, instinctive mechanisms of laughter. Instead, we search for laughter wherever it is found, and follow the empirical trail wherever it leads, from the stage of grand opera to tickle frolics. Along the way we consider the evolution of the nervous system and the organs of vocalization—an essential but missing step of previous approaches to laughter. In the primal panting laughter of chimpanzees, for example, we discover why humans can talk and other apes can't, and why walking upright on two legs was necessary for this transformation. We also learn why tickling and rough-and-tumble play teach us more about the roots of laughter than their evolutionary by-products of joking and stand-up comedy, the behaviors that captured the attention of so many philosophers and social scientists. The strongest argument for the present, naturalistic approach to laughter is that the most useful approaches and the most exciting discoveries were unanticipated at the outset—they were suggested by observations of laughing people.
From philosophers we have learned a lesson about laughter that they did not intend to teach—namely, that intellectual prowess, however formidable, is limited in what it can tell us about this tantalizing behavior. To learn more about laughter we must stop talking about it and start listening to the ultimate experts, laughing people. This chapter traces the first steps in a 10-year search to understand what laughter is, when we do it, and what it means. These early investigations were an improvisational scramble because there were few precedents about how to study ongoing laughter in everyday life. Most previous research about “laughter” did not, in fact, concern the act of laughter and was conducted in laboratories or used paper and pencil tests. My adoption of a naturalistic, descriptive tactic was the basis for all that follows, including the discovery of several new phenomena of laughter. As we will see, careful
observations of ongoing behavior can lead to startling and often counterintuitive insights into the nature and neurological control of laughter. But the wisdom of this approach was not obvious at the outset. Learning how to learn about laughter held lessons of its own.¹

“Making tiger soup is easy. First you get a tiger,” goes a popular joke. My first efforts to find laughter to study were rather like making tiger soup. With naive enthusiasm, I set out to find laughter, the essential ingredient. But for something so apparently robust and common, laughter proved surprisingly fragile and illusive. Bring laughter under scrutiny, and it vanishes.

I began with the assumption that the best way to obtain laughter for study was to invite individuals or small groups of two or three people into my laboratory and entertain them with audio and video recordings of comedy performances. My subjects would surely surrender to the comic powers of a Rodney Dangerfield or a Joan Rivers. If not, then George Carlin’s classic “Seven Dirty Words” routine, the Broadcast Blooper album, or some of the very funny early episodes of Saturday Night Live would certainly turn the trick. But nothing seemed to work. My comic virtuosi elicited only a few grudging chuckles from the lab-bound subjects. I was surrounded by laughing people who would go stone sober when brought into the laboratory.

What seemed like a “can’t-fail” project was failing. This was a humbling experience, for obtaining a sample of laughter does not qualify as what many people would consider rocket science. At this point, I learned two lessons. First, any research dealing with the perverse social tendencies of human beings is rocket science. Second, the subject is always right. These “lessons” should be elevated in status to “principles,” ranking with other universal truths like, “There’s no such thing as a free lunch,” and “If anything can go wrong, it will go wrong.”

¹Hard-won insights about where to find laughter and how to increase laughter in your life are provided in the Appendix.
smiles, but no laughs. Variations of this social give-and-take are repeated many times during the evening. But who actually is laughing and why? Is there order in this apparent chaos of chatter and laughter? The challenge here is to parse the stream of conversation and laughter into manageable, quantifiable units.

The first advance in understanding conversational laughter was in conceiving the laugh episode. A laugh episode consists of the comment immediately preceding laughter, and all laughter occurring within one second after the onset of the first laughter. Two laugh episodes were just described in the party scenario. In one, John spoke and his audience laughed. In the other, Jennifer both spoke and laughed, but her audience remained silent.

The second advance was in distinguishing between speaker and audience laughter. In conversation, the speaker is the person talking, and the audience is the person or persons being addressed. Audience laughter has been the almost exclusive concern of previous researchers, while speaker laughter has gone largely unrecognized. At first, I, too, neglected speaker laughter. Consider the above example in which Jennifer the speaker laughed, while her audience did not. When observing who laughed in response to speaker comments, I was bothered by the fact that the speaker often laughed and was, in fact, sometimes the only person who laughed—a complication that was creating chaos in my scoring system. I then realized, however, that the speaker was part of the social unit and had to be included in any analysis. My slowness to appreciate the speaker's laughter was attributable to the pervasive and inappropriate model of stand-up comedy in laughter research, in which a usually nonlaughing (deadpan) comedian tells jokes to a receptively laughing audience.

The third advance in understanding laughter was in recognizing gender differences in laugh patterns. Gender is a fact of any human interaction, and recognizing gender differences is essential to understanding patterns in conversational laughter.

The strategy for studying conversational laughter was now taking shape. When laughter occurred, we would record (1) who laughed: the speaker (S), audience (A), or both; (2) the gender of speaker and audience, and (3) the prelaugh comment. For example, if John the male speaker (S_m) told a story to Jennifer his female audience (A_f), and both laughed within one second, a circle would be drawn around both speaker and audience, (S_m A_f), denoting that they both laughed. If Jennifer commented that John had onion dip on his tie, and Jennifer but not John laughed, (S_f A_m) would be recorded, signifying that only the female speaker laughed. To simplify our analysis, we examined the smallest possible social group, the dyad, which consists of only two people.

The fruit of our yearlong eavesdropping mission was 1,200 laugh episodes that were sorted by speaker and audience, gender, and prelaugh comment. These hard data forced me to attend to new laugh phenomena, and prompted my reluctant metamorphosis from neuroscientist into social psychologist.

**Gender in Laughing, Speaking, and Listening**

There are no gender-free human encounters. When someone laughs, someone else is usually present, and the gender of that person must be taken into account to understand the social dynamics of laughter. Linguist Deborah Tannen pointed out the significance of gender differences in conversational styles in her best-selling book *You Just Don't Understand*. The gender differences in laughter may be even greater, the evidence for which we will now consider. (The percentages in the table on page 28 do not add up to 100 percent because either the speaker, the audience, or both may laugh during a given episode.)

While tabulating the data, I found that speakers laughed more than their audiences. Nothing in the audience-oriented literature about laughter or humor suggested such a result. When I totaled speaker (S) and audience (A) laughter across all four possible gender combinations, speakers were found to laugh 46 percent more than their audiences. The effect was even more striking when gender was considered. The speaker/audience difference was greatest when females were conversing with males (S_f A_m), a condition in which fe-
males produced 126 percent more laughter than their male audiences.

When a female colleague first saw these results showing the high levels of female speaker laughter, her response was, “Oh, my God, the stereotype of the giggling female has been confirmed.” Another female colleague put a different spin on these data, noting that “when dealing with males, there is so much more to laugh at,” an argument weakened by the finding that female speakers laugh only slightly less at other females than at males. Female speakers are enthusiastic laughers whoever their audience may be. Male speakers are pickier, laughing more when conversing with their male friends than with an audience of females. The least amount of speaker laughter occurred when males were conversing with females—this $S_m A_f$ grouping was the only one of the four gender categories having less speaker than audience laughter. As audiences, both males and females were more selective in whom they laughed at or with than they were as speakers—neither males nor females laughed as much as females as male speakers. In summary, females are the leading laughers, but males are the best laugh getters.

The male superiority in laugh-getting develops early in life. In England, Hugh Foot and Anthony Chapman observed that among children viewing cartoons, girls laughed more often with boys than with girls, and girls reciprocated boys’ laughter more often than boys reciprocated girls’ laughter.

The gender pattern of everyday laughter also suggests why there are more male than female comedians. Sexism and bias in show business may not be the only explanation, for comics Rosie O’Donnell and Phyllis Diller may actually have to work harder for their laughs than Rodney Dangerfield or Jerry Seinfeld. As a male, Rodney Dangerfield gets more respect than he claims. The high proportion of male comics may also be related to the number of trainees in the pipeline. Males engage in more laugh-evoking activity than females, a pattern that may be universal. In a cross-cultural study of children’s humor in Belgium, the United States, and Hong Kong, males were the principal instigators of humor, and this tendency was already present by six years of age, when joking first appears. Think back to your own childhood days and recall who was your class clown—most likely it was a male.

While males are the leading jokesters, and females are the leading laughers and consumers of humor, what is actually being communicated in their noisy displays? Might laughter be performed by a subservient individual, most often a female, as a vocal display of compliance, subordination, or solidarity with a more dominant group member? Insights about the social role of laughter can be gleaned from laugh patterns of people holding different social rank within a group.

In a rare and enlightening naturalistic study, sociologist Rose Coser found a strong relation between humor production, the target of humor, and the professional status among staff at a psychiatric hospital. (The analysis focused on laughter that was a response to an anecdote or other “intended provocation.”) During staff meetings, the senior staff (psychiatrists) most often made junior staff (residents) the target of their witticisms. The junior staff did not reciprocate, most often targeting instead patients or themselves, a pattern also typical of the lower-ranking paramedical staff (psychologists, social workers, sociologists). Not once did the junior staff target a senior staff member present at a meeting. Consistent with this finding of downward humor, the paramedical staff never made any member of the psychiatric staff (senior or junior) the butt of their humor. Humor apparently had high social costs only senior staff could afford. The average witticisms per staff member were 7.5 for senior staff,
5.5 for junior staff, and only 0.7 for the lowly paramedics. These values are especially striking because junior staff did most of the talking at meetings. Also notable was the male contribution of 96 percent (!) of witticisms, despite substantial female representation in all staff ranks. Although wit was costly, laughter was cheap—women, for example, seldom joked but were enthusiastic laughers.

Are these laugh patterns stable over time and social circumstance? For example, is a person's laugh pattern fixed, or is it conditional, so that it changes with promotions or demotions in social rank? It is likely that a person assumes a variety of state-specific laugh patterns, adopting the one most appropriate for a particular social situation (e.g., with professional colleagues, friends, children). A stern boss may be a barrel of laughs when cavorting with old school chums.

Laughter's role as a signal of dominance or subservience can be tested by observing whether male underlings switch to a more typically female laugh style when conversing with female bosses (e.g., laughing a lot as both speaker and audience). Another approach would be to contrast the laugh behavior of such powerful women as Hillary Clinton and Margaret Thatcher with that of their male subordinates. A change in power status probably brings a shift in laugh pattern.

Ethnological studies document the flexibility and strategic use of laughter. In southern India, men belonging to a lower caste giggle when addressing those of a higher caste. Other aspects of “self-humbling” are well developed among Tamil villagers of low caste (Harijan), but are exercised only when dealing with powerful persons of higher caste. When dealing with a landlord, for example, a Harijan may giggle, speak with unfinished sentences, mumble, appear generally dim-witted, and when walking, shuffle along. Yet this same Harijan may suddenly become shrewd and articulate when dealing with less powerful people.

Similar self-effacing behavior, including buffoonery, is practiced by the Bahutu in the presence of their caste superiors in Central Africa. And the women of many societies worldwide exhibit various forms of “self-humbling” in the presence of men (i.e., lowered eyes, shy or embarrassed silence). The “prosodic” (nonlinguistic sonic quality) of speech also bears social status information about the speaker and audience. Men and women of the Tzeltal (Mexico) and Tamil use high-pitched/falsetto voices to convey self-humbling. Presumably, the high-pitched voice shows deference and is less threatening because it is characteristic of women and children. Among the rural Tamil, male and female Harijan (low-caste) speakers address high-caste powerful persons with thin, high-pitched voices. A higher pitch is also used within the caste to show deference or power asymmetries, as when a daughter is making a request of her father.

Let us now return to our friends at the party and continue the exploration of laughter in organizational politics. Consider Jennifer, a woman of high intelligence and good judgment, who giggles a lot as speaker and audience. Will she unfairly be passed over for a management position in her company because of her ubiquitous laughter, a decision her detractors may falsely attribute to her lack of leadership skills? Ironically, neither Jennifer nor her detractors would recognize the role that laughter might play in her evaluation. Does her giggly laughter disqualify her from positions of authority? Or would Jennifer’s promotion to a management position bring with it a change to more role-specific laughter? I predict that Jennifer’s laugh pattern would shift to match her new, more responsible position even though she would be unaware of the transformation.

Evaluate your own experience with organizational laughter. Is sharing laughter with subordinates incompatible with positions of authority? Have you ever encountered a leader of high authority who has a giggle? How many really funny generals are there? Would such a person be considered a “serious” or “formidable” member of an organization? How many presidents open their State of the Union speeches with one-liners, in the manner of banquet speakers on the rubber chicken circuit? Someone who laughs a lot, and unconditionally, may be called a “ditz,” or a “good ol’ boy,” but seldom “boss,” or “president.” The late American legislator Morris Udall recognized this issue when he titled his autobiography Too Funny to Be
President John F. Kennedy was unusual among U.S. presidents in having both a presence of command and an excellent sense of humor.

IN SEARCH OF: LAUGHTER AND HUMOR
REQUESTS IN THE PERSONALS

Given the differences in male and female laugh patterns, is laughter a factor in human meeting, matching, and mating? Can we learn to laugh our way to social and sexual success? These possibilities are particularly intriguing, because we have little awareness or conscious control of our laughter. My exploration of the sexual politics of laughter uses a technique even less exotic than field trips to the local mall—these data were ready-made and published in the personal ads of newspapers.

HEALTHY, HAPPY, wholesome, sexy, funny, smart, playful, spiritual, pretty, blond 5'7"/132 ISO same qualities in tall, dark hunk, 45+.

SAN DIEGO UNION-TRIBUNE

SINGLE white professional male, 6'1" 200 lbs., blue-eyed blond, enjoys all sports, outdoors, movies, laughter, ISO attractive, athletic SWF 21-26, with good sense of humor.

CHICAGO TRIBUNE

What do men and women want in a lover or life partner? Is sense of humor and funniness part of this human equation? Many of us value friends who have a lighthearted view of life and avoid those who radiate a dark aura of pessimism and depression. But do we consciously seek out partners who love to laugh and make us laugh? Personal ads deserve careful consideration because a lot of thought probably goes into their composition. After all, the seekers had better be careful about what they ask for, because they might get it. And what is being sought in this catalogue of human desire? A few people have simple generic needs ("male," "female"), but most are more specific about age, height, body build ("fit," "hard body," "proportionate," "full-bodied"), marital status, personality, sexual orientation, religion, drinking, drugs, smoking, and race. (One discriminating person sought a partner who was "ebola free.")

Social scientists have identified consistent trends in this human marketplace. Men more often seek physical attractiveness and offer financial resources than women. Conversely, women are more likely than men to offer attractiveness and seek financial resources. Males and females show a clear and convenient complementarity in what is being offered and sought, a necessary condition for successful deal making. Economists will find a lot to like here. Another trend in the ads may not surprise females who are presumably more perceptive in such matters—more males than females focus on physical characteristics (e.g., height, weight, age, eye and hair color), whereas more females consider personality and psychological traits (e.g., intelligence, sensitivity, caring, spirituality, maturity). Among advertisers mentioning age, males more often seek younger partners and females older ones.

But what is the currency of laughter in the human marketplace of personal ads? To find out, I perused 3,745 ads placed by heterosexual males and females in eight major, mainstream, geographically dispersed American newspapers on Sunday, April 28, 1996. A single date was examined to avoid repeated ads. The papers were the Baltimore Sun, Boston Globe, Chicago Tribune, Cleveland Plain Dealer, Houston Chronicle, Miami Herald, San Diego Union-Tribune, and Washington Post. Overall, men took out 23 percent more ads than women (2,065 versus 1,680), but the proportion ranged from the Houston Chronicle with 21 percent more female ads to the Cleveland Plain Dealer with 28 percent more male ads. (Homosexual males and females were not considered, because they contributed a relatively small number of ads and deserve a separate study of their own.)

Laughter or laughter-related behavior (e.g., "humorous," "sense of
humor,” “funny,” “witty”) was mentioned in about one-eighth of the total ads (13 percent, or 478 of 3,745). Ads seeking or offering “fun” or “having fun” were not counted because such general descriptors may not involve laughter. Females were much more likely (62 percent more) than males to mention laughter in ads, a reflection of women's greater relative concern with personality and psychological traits. The plot thickens when laugh citations were divided into seek and offer categories for males and females. Advertisers were considered to seek laughter in a desired partner if they requested either laughter itself (“loves to laugh,” etc.) or laugh-producing behavior (“sense of humor,” “funny,” etc.). The advertisers were considered to offer laughter if they either mentioned their own tendency to laugh, sense of humor, or appreciation of laughter, even someone else’s.

The evidence is clear. Women seek men who make them laugh, and men are anxious to comply with this request. Women sought laughter (13 percent) more than twice as often as they offered it (5.7 percent). In contrast, men offered laughter (6.5 percent) about a third more than they sought it (4.9 percent). The most common form of bartered laughter was “sense of humor.” Men offered it and women sought it, although not in identical proportions. The complementarity of male and female laughter requests is striking because laughter is under minimal conscious control and neither sex may be aware of the gender differences in laughter. Both sexes unknowingly comply with the demands of their instinctive script.

What is the nature of the laughter offered by men and sought by women? As we have seen, observations of actual behavior indicate that men laugh much less than the women with whom they are conversing. But laughless males are an unlikely concern of women who are really requesting men who make them laugh. And the men who offer laughter aim to stimulate it in their female partner, not to laugh themselves. These men may revel in the chuckles of a female companion, a measure of her pleasure and recognition of his acceptance and status. Such “funny” men are likely to pass the female laugh test whether they actually laugh or not. Given the previously considered relation between laughter and social status, the desire by women for men who make them laugh may be a veiled request for dominant males. Men who pass the audition for dominance are acknowledged with women’s laughter. However, women may reward dominance more than men reward submission—men are less likely to seek laughter in their personal ads than women.

Laughter-seeking by women was reported by Karl Grammar and Irenäus Eibl-Eibesfeldt in a study of spontaneous conversations between mixed-sex pairs of young German adults who were meeting for the first time. The more a woman laughed aloud during these encounters, the greater was her self-reported interest in seeing the man again. The man’s own laughter did not indicate interest in the woman, but he was interested in meeting a woman who laughed heartily in his presence. (Simultaneous male and female laughter did, however, predict mutual interest.)

Imagine a conversing couple standing close and gazing intently into each other’s eyes, with the man’s indistinct “mumble-mumble” repeatedly punctuated by the bright sound of female laughter, and a lot of shared laughter. My data suggest a positive prognosis for this relationship. The prospects are less favorable for a relationship featuring a lot of unreciprocated male laughter—the couple may be standing farther apart, and the female may be glancing around, signaling lack of interest in her companion, providing an invitation for outsiders to join them.

In the above scenarios, the laughter of the female, not the male, is the critical positive index of a healthy relationship. Guys can laugh or not, but it’s best that their woman is getting her yuks in. Pop diva Cyndi Lauper advanced this hypothesis in her perceptive song “Girls Just Want to Have Fun.” But on the basis of evidence stated earlier, Madonna deserves an equal hearing for her “Material Girl” hypothesis. Who is right? Probably both. Current research of the personal ads suggests that a woman will most enjoy the company of a man who loves laughter (at least that of his girlfriend), has a good job, and some ready cash in his pocket.
OUR LIVES ARE FILLED WITH A TERROR OF WORDS THAT ARE PUNCTUATED BY BRILLIANT Eruptions OF LAUGHTER. Amazingly, we somehow make sense of this word salad and speak, laugh, and listen at just the right time. This triumph is all the more remarkable given the biological equipment at our disposal. Those viewing humans as the masterpiece of creation should consider our jury-rigged contraption for speech, no part of which evolved expressly in the service of speech. A bioengineer conceiving such a device would be sent back to the drawing board, or out the door.

Consider the facts: We eat, drink, breathe, belch, vomit, and talk through the same orifice, a plumber's nightmare with sharp teeth at one end. Is this any way to design an organism? We must stop breathing to swallow—or suffer severe consequences. (Babies can simultaneously breathe and nurse during the early months of life.) Likewise, breathing must cease when we speak. And we must choose whether we would rather speak or eat. The only way we are able to live with such an inefficient mechanism is through an ingenious time-sharing program. We reflexively stop breathing when we swallow and rarely breathe in mid-sentence.

Like much in nature, we get by not because of superior organ craftsmanship (Mother Nature is a notoriously sloppy workperson), or elegance of design (remember the troublesome wisdom teeth and the vestigial appendix), but through some resourceful biologic innovations, this time involving the neurological wetware of our central nervous system. Our brain choreographs this complicated ballet of breathing/eating/drinking/talking so well that we are scarcely ever aware of it—a triumph of biologic error control.

Here we examine the temporal patterning of laughing and talking by observing the placement of laughter in the speech stream. Because the neurological processes that produce laughter and speech converge on a single mechanism of vocalization, a study of vocal behavior reveals how we deal with this confluence of potentially conflicting vocal acts. Does laughter or speech win this competition for vocal dominance? Is laughter randomly inserted into speech, or is laughter inserted only at phrase breaks or pauses in speech, which would suggest evidence of speech dominance? And if there is a lawful, nonrandom relation between laughter and speech, what is its organizing principle? Laughspeak, a form of blended, laughing speech that communicates emotional tone, is qualitatively different from the classical ha-ha-type laughter considered here and was excluded from this analysis.

The inquiry into the relationship between laughter and speech is based upon the same file of 1,200 laugh episodes that was considered in a previous study, except the focus here is upon the placement of laughter in the prelaugh comment. Of particular interest is whether laughter interrupts the phrase structure of speech. The results are gratifyingly clear.

During conversation, laughter by speakers almost always follows complete statements or questions. Laughter is not randomly scattered throughout the speech stream. Speaker laughter interrupted phrases in only 8 (0.1 percent) of 1,200 laugh episodes. Thus, a speaker may say, “You are going where? . . . ha-ha,” but rarely “You are going . . . ha-ha . . . where?” This strong and orderly relationship between laughter and speech is akin to punctuation in written communication and is termed the punctuation effect.

Speech has a clear priority in gaining and maintaining use of the single vocalization channel because it's seldom interrupted by laughter. Although people may recall instances when they or others “break up” in laughter, and have difficulty finishing jokes or stories, such interruptions are actually quite rare. We should avoid making exceptions the rule, a common tendency that thwarts the discovery of basic mechanisms and principles.

The occurrence of speaker laughter at the end of phrases indicates that a lawful and probably neurologically based process governs the placement of laughter in speech. The temporal segregation of laughter and speech is evidence that different brain regions are involved in the expression of cognitively oriented speech and the more primitive, emotion-laden vocalization of laughter. (Additional
neurological evidence for this division of labor is presented in Chapter 8.) During conversation, we switch back-and-forth between the speech and laughter modes. During speech, the dominant speech-producing region inhibits that producing laughter. If laughter is triggered during speech, its expression must await the passing of phrase-sized chunks of speech-related inhibition.

The punctuation effect holds for the audience as well as for the speaker, a surprising result because the audience could laugh at any time without speech-related competition for their vocalization channel. No audience interruptions of speaker phrases were observed in our 1,200 laugh episodes. It’s unclear whether the punctuation of speech by audience laughter is cued directly by the speaker (e.g., a postphrase pause, gesture, or laughter), or by a brain mechanism similar to that proposed for the speaker that maintains the dominance of language (this time perceived, not spoken) over laughter: The brains of speaker and audience are locked into a dual-processing mode. (Further evidence of the synchronization of the brains and behavior of speakers and audiences comes from the remarkable phenomenon of contagious laughter considered in Chapter 7.)

Given laughter’s punctuation of speech, it’s logical to ask what kind of punctuation laughter represents—a period, a question mark, an exclamation, or something else. Although the imposition of specific punctuation on the rich, multimodal conversational flow is necessarily subjective and may attribute more formal structure to conversation than warranted, it is sufficient to show that laughing is not an exclusive consequence of a particular type of comment. Laughter by speaker or audience followed statements in 84 percent, and questions in 16 percent of laugh episodes. The precise proportion is less significant than the demonstration that laughter commonly follows both statements and questions.

Observers awarded an exclamation to 41 percent of sentences (statements and questions) preceding laughter. Laughter often followed such statements as “What a shirt!” or “You did what?!” Exclamatory sentences, a highly subjective categorization, ended on a crescendo, change in intonation, or other attention-getting nuance associated with elevated emotional tone.

The first report of a defect in the punctuation process may have been made in Thinking in Pictures, Temple Grandin’s fascinating, autobiographical account of life with autism. She notes that “when several people are together and having a good time, their speech and laughter follow a rhythm. They will laugh together and then talk quietly until the next laughing cycle. I have always had a hard time fitting in with this rhythm, and I usually interrupt conversations without realizing my mistake. The problem is that I can’t follow the rhythm.” It’s significant that Grandin is struggling with an ability that nonautistic individuals mindlessly perform with remarkable accuracy.

The punctuation effect finds application in joke telling. Master comedians are aware that success lies as much with the presentation of a joke as with the joke itself. A critical part of joke telling is timing, the pace of storytelling, the setting up, and delivery of the punch line—and most important to our present story, the pause that follows the punch line.

Some comedians, like Groucho Marx, work quickly, delivering a rapid-fire barrage of jokes, while others, like Jack Benny, proceed at a more leisurely pace, in the tradition of storytelling. But a critical feature in the style of all stand-up comedians is a pause after the delivery of the punch line, during which the audience laughs. The comic usually signals the onset of this critical pause with marked gestures, facial expressions, and altered voice intonation. Jack Benny was known for his minimalist gestures, but they were still discernible, and worked wonderfully. A joke will fail if the comic rushes to his next joke, providing no pause for audience laughter (premature ejokulation)—this is comedy’s recognition of the power of the punctuation effect. When the comic continues too soon after delivery of his punch line, he not only discourages, and crowds-out, but neurologically inhibits audience laughter (laetus interruptus). In show-biz jargon, you don’t want to “step on” your punch line.
NOTHING TO JOKE ABOUT: WHAT PEOPLE SAY BEFORE THEY LAUGH

If you want people to laugh, you tell them jokes. Right? Well, not according to our survey of what 1,200 people said immediately before they laughed. Jokes will work, but people laugh more often after such innocuous lines as “I’ll see you guys later” or “Are you sure?” — not exactly knee-slappers. Our fieldwork failed to discover The Mother of All Jokes or even her next of kin. In fact, most laughter did not follow anything resembling a joke, storytelling, or other formal attempt at humor. Only about 10 percent to 20 percent of prelaugh comments were estimated by my assistants to be even remotely humorous. Peruse the sample list of 25 Typical Prelaugh Comments and make your own decision about their humorousness.

**TABLE 1**

**25 Typical Prelaugh Comments**

**Typical Statements**

- I’ll see you guys later.
- Put those cigarettes away.
- I hope we all do well.
- It was nice meeting you too.
- We can handle this.
- I see your point.
- I should do that, but I’m too lazy.
- I try to lead a normal life.
- I think I’m done.
- I told you so!
- I was completely horrified!
- There you go!
- I know!
- Must be nice!
- Look, it’s Andre!

**Typical Questions**

- It wasn’t you?
- Does anyone have a rubber band?
- Oh, Tracey, what’s wrong with us?
- Can I join you?
- How are you?
- Are you sure?
- Do you want one of mine?
- What can I say?
- Why are you telling me this?
- What is that supposed to mean?!

**TABLE 2**

**Greatest Hits! 25 Funniest Prelaugh Comments**

**Humorous Statements**

- He didn’t realize he was sitting in dog shit until he put his hand down to get up.
- When they asked John, he said he wanted to grow up to be a bird.
- Look at that hunk of burning love.
- He has a job holding back skin in the operating room.
- Poor boy looks just like his father.
- He tried to blow his nose but he missed.
- You smell like you had a good workout.
- She even makes my tongue hard!
- I never eat anything that moves. (Reference to dormitory food)
- Now you know what happened to Jimmy Hoffa. (Reference to dormitory food)
- That’s because you’re a male!
- I’d pay a hundred dollars to wade through her shit! (Expression of endearment)
- She’s working on a Ph.D. in horizontal folk dancing.
- You don’t have to drink, just buy us drinks.
She's got a sex disorder—she doesn't like sex.
You just farted!

Humorous Questions
Was that before or after I took my clothes off?
Do you date within your species?
Did you find that in your nose? (Reference to dormitory food)
Are you working here or just trying to look busy?
Why would you go water skiing if you don't know how to swim?
What did you do to your hair?!
Did he discuss anything during his last lecture? (Student query about a missed college lecture—one of mine!)
Is that considered clothing or shelter?
Are you going to wear that?!

The conversations we recorded were monitored long enough to establish that the low level of humorless prelaugh comments reported here was not an artifact of sampling only the out-of-context punch line of a joke or climax of a funny story. The low rate of joke-triggered laughter also was not the result of neglecting sight gags, comic gestures, or other visual cues, because plenty of laughter is present in telephone conversations, a purely auditory mode of communication. The telephone is a good, low-cost filter that passes auditory cues while blocking all visual ones.

Most prelaugh dialogue is like that of an interminable television situation comedy scripted by an extremely ungifted writer. When we hear peals of laughter at social gatherings, we are not experiencing the result of a furious rate of joke telling. The next time you are around laughing people, examine for yourself the general witlessness of prelaugh comments.

The discovery that most laughter is not a response to jokes or other formal attempts at humor forces a reevaluation of what laughter signals, when we do it, what it means, and how we should study it. Humor (jokes, pranks, tricks, gags, cartoons, etc.), taps only recently evolved cognitive and linguistic stimuli for laughter (e.g., incongruity) of the sort that concerned Kant and Schopenhauer and was described in Chapter 2. Although valid in their own domain, humor-based approaches are of limited relevance in understanding most laughter.

Compare, for example, the socially impoverished, narrow, and verbally oriented scenario of stand-up comedy, the prototype of much laugh research and philosophical inquiry, with the richness and complexity of everyday conversational laughter.

1. Stand-up comedy is based on joke telling, in contrast to the mundane, nonjoke, prelaugh comments of everyday life.

2. The comedian, the designated joke-teller in stand-up comedy, is physically and socially distant from the audience, in contrast to the intimate contact and interaction during normal conversational laughter. (Comedians attempt to close this gap and develop a relationship with the audience with such stories as "Have you ever taken your car to a garage for repair and the mechanic says . . . " etc.)

3. Comedians typically talk but don't laugh, and their audience laughs but doesn't talk, an unnatural representation of the social setting of conversational laughter, in which the speaker laughs most of all, and periodically trades roles with the audience.

Laughing Relationships
"Ha-ha-ha" is not broadcast into the void like the message of an animal calling, "This is my territory" or "I'm available for mating." Laughter, like speech, is a vocal signal that we seldom send unless there is an audience. Danish philosopher Søren Kierkegaard noted the rarity of solitary laughter when he inquired of a friend, "Answer me honestly . . . do you really laugh when you are alone?" Kierke-
Laughter

Laughter is the quintessential human social signal. Laughter is about relationships.

To learn more about the social setting essential for laughter, 72 undergraduate student volunteers from my classes recorded their own laughter, its time of occurrence, and its social circumstance in small pocket-sized notebooks (laugh-logs). Smiling and talking were also recorded to provide contrasts with laughter and each other. Laughing and talking are principally auditory signals, functioning in light or darkness and around obstructions. Smiling, in contrast, is a visual signal requiring line-of-sight visual contact between the recipient and the illuminated face of the sender. Talking was studied because its role in communication is unquestioned. The approach to talking taken here is a bit unusual because no attention was paid to what was said—subjects simply recorded when talking occurred. Singing “Louie, Louie” was weighted equally with the recitation of the Gettysburg Address.

A decision had to be made about how to treat media. For example, are you really “alone” when sitting in your living room watching television, listening to the radio, or reading a book? Probably not—you respond to media as a source of vicarious social stimulation. Your feelings of fear, loathing, lust, love, and aggression produced by media is not a response to an arbitrary pattern of light, sound, or imagery, but the product of relationships you have formed with the characters and events portrayed. When experiencing vicariously the trials of Scarlet and Rhett, you really do give a damn. To control for these confounding influences, only media-free cases of solitary laughter were considered.

The dedicated logbook keepers revealed that laughter, smiling, and talking were infrequent immediately before bedtime and after waking. After all, we seldom have much of an audience at these times, and when we do, we are not enthusiastic communicators. Among solitary subjects, talking was by far the most common early morning activity, followed by smiling, with laughing a distant third. Singing, rehearsing upcoming conversations, studying, cursing, and “thinking out loud” were parts of these morning soliloquies. The monologues were sometimes punctuated with smiles, but seldom laughs.

The sociality of laughing was striking. (Sociality refers to the ratio of social to solitary performance of a behavior.) My logbook keepers laughed about 30 times more when they were around others than when they were alone—laughter almost disappeared among solitary subjects not exposed to media stimulation. In the social sciences, where many effects are tiny and revealed only through statistical analyses of huge samples, it’s gratifying to find a result of this magnitude. Laughter’s marked sociality reflects its evolutionary roots in tickle and rough-and-tumble play, activities requiring a partner (Chapters 5, 6). In contrast to the awesome sociality of laughter, people smiled over six times more and talked over four times more in social than in solitary situations.

Although we probably laugh or smile more when we are happy than sad, these acts are performed primarily in response to face-to-face encounters with others, our audience. This dependence on social context means that, contrary to popular opinion, laughter and associated facial behavior are unreliable mood meters—after all, would you announce “I’m a very happy person,” when entering a vacant room or striding down a sidewalk alone?

Until recently, bowlers have been known mostly for beer, big hair, fancy shirts, and nondesigner shoes. But psychologists Robert Kraut and Robert Johnston changed all of that when they ventured into Ide’s Bowling Lanes in Ithaca, New York, to observe smiling. In the most notable psychological research ever conducted at a bowling alley, they observed that bowlers often smiled during social interactions, but not necessarily after receiving good scores (strikes or spares). Furthermore, the bowlers rarely smiled while facing the pins, but often smiled when facing their friends. As in my logbook study, there was a strong association between smiling and social motivation and an erratic association with emotional experience.

Smiles are also flashed as social displays by athletes at the other end of the fitness spectrum from Ithaca’s bowlers. José Miguel
Fernandez-Dols found Olympic gold medal winners at the Barcelona games to smile fleetingly when receiving their medals but only intermittently at other times during the presentation ceremony. The smiles were coupled with the face-to-face encounter with the presenter although the unquestionable joy of the moment, the culmination of a lifelong quest, was presumably stable during the entire presentation. The use of the smile as a social display develops early in life. Babies at play tend not to smile until they look around and make eye contact with their mother, observed psychologist Susan Jones.

Eye contact between friends (the people you laugh with) also facilitates laughter, a discovery I made while interviewing strollers on Baltimore sidewalks. When I encountered oncoming pedestrians (I’m sometimes trailed by a video cameraman) and informed them that “I’m conducting a survey of laughter,” they typically shifted their gaze to each other and laughed. When I asked why they were laughing at each other but not at me, they often said, “You aren’t funny,” a rationalization of their action. People’s nonverbal behavior tells a less ambiguous story. Laughter is a social act involving members of their group (their companions), and eye contact is an important link in this social pas de deux. I was the uninvited and “unfunny” outsider. (“Funny” and “unfunny” are simply ways of saying that you laughed at or did not laugh at somebody or something. “Funny” is not an adequate explanation of laughter.)

The social circumstances that most favor laughing and smiling are similar to those that favor talking. Talking may be more akin to laughing, smiling, and other nonverbal social signals than is often appreciated. For example, I have suggested that small talk may have evolved to facilitate or maintain social bonds among our tribal ancestors, a role independent of linguistic content and similar to that served by mutual grooming among members of contemporary primate troops. Robin Dunbar developed this proposition in his entertaining book, Grooming, Gossip, and the Evolution of Language. In her study of gender differences in conversation patterns, Deborah Tannen concurs that “small talk serves a big purpose,” being “crucial to maintain a sense of camaraderie when there is nothing special to say.” This social bonding function is a property of the “phatic” speech described by Malinowski “in which the ties of union are created by a mere exchange of words.” In this context, the act of speaking is more important than what is said.

Laughter plays a somewhat similar, nonlinguistic role in social bonding, solidifying friendships and pulling people into the fold. You can define “friends” and “group members” as those with whom you laugh. But laughter has a darker side, as when group members coordinate their laughter to jeer and exclude outsiders. Ridicule, a fine French film exploring this theme, begins with the apocryphal quotation “In this country, vices are without consequence, but ridicule can kill” (Duke of Guines). The film deftly instructs us on how wit and laughter were used as currency and weapon in the effete, socially competitive court of Louis XVI. But laughter has long been instrumental in the casting out of misfits, sometimes with dire consequences. Throughout the ages, cripples, mental defectives, and court fools have been injured and perhaps even killed in a crescendo of teasing, laughing, and violence. Laughter scorns the victims and bonds and feeds the wrath of aggressors. On a more massive scale, dark laughter has sometimes accompanied the looting, killing, and raping that are among the traditional fruits of war.

We are still burdened with such savage vestiges of our primate heritage. Recent news reports confirm that mob violence, massacres, and butchery throughout the world are sometimes accompanied by laughter. During 1999, laughter has been reported during ethnic violence in Indonesia and Kosovo, and in a high school massacre in Littleton, Colorado. According to Aron Cohn, a survivor of the Littleton school shooting, the two male killers “laughed. They were just hooting and hollering. Having the time of their life” (“Death Goes to School with Cold, Evil Laughter,” Denver Rocky Mountain News, 21 April 1999).

One of the best theatrical illustrations of the two sides of laughter appears in the film Goodfellas, in which the volatile character played by Joe Pesce at times “laughs with” and “laughs at” his mob buddies
and outsiders, sometimes with deadly effect. Consider especially the notorious "Do you think I'm funny" nightclub scene early in the film.

What is the nature of a **laughing relationship**—the association necessary for a stimulus object, organism, or person to be considered funny (i.e., trigger laughter)? Most of us can envision a social relationship with a pet dog or cat, honorary members of our social world. We play with these creatures and may even laugh at them—the more humanlike their behavior, the funnier we perceive them. But can an inanimate object be funny? Here we revisit an issue developed by philosopher Henri Bergson (Chapter 2)—that mechanical things are funny in proportion to the degree in which they resemble humans (i.e., puppets are funnier than auto transmissions). Can you imagine a truly funny device, a creation that I will term a Bergson machine?

Let's consider the fruit test, a botanical twist on the Bergsonian proposition. Can a fruit be funny? What's the funniest fruit you can think of? Imagine the firm roundness of a grape, the plump purple majesty of an eggplant, or the blood red juice of a pomegranate. Although you can do funny things with fruit, by itself, fruit just isn't funny. For something to be funny it must be associated with the actions of people, not objects. The lowly banana peel has earned classic status in comic annals—but only when someone slips on it.

The film industry has important lessons to teach us about generating emotional reactions to inanimate objects—it's a multibillion-dollar laboratory for the study of human behavior that produces data in the form of box office receipts. No scientist has access to such wonderful resources. In the specialized domain of laughter and positive affect, we are far from building a Bergson machine that could win an audition for stand-up comedy. However, the Star Wars films have provided promising robotic contestants in those personable, intergalactic swashbucklers C3PO and R2D2. But even here, one member of this squabbling duo, C3PO, is humanoid, while R2D2 resembles a mobile, high-tech fireplug. Their droid humor may fail if it involved only a pair of R2D2s.

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**IS LAUGHTER CONSCIOUSLY CONTROLLED?**

Do we choose to laugh? Do we decide to say "ha-ha-ha" as purposefully as we would select a word in speech? This is one of the most important and neglected questions about laughter; the validity of over two millennia of thinking about laughter hangs in the balance. Many philosophical and social scientific analyses bear the tacit assumption of intentionality and conscious control, and we saw its marks in the common sense rationalizations of why we laugh in Chapter 2. It is understandable that we seek answers in the familiar, but common sense does not serve us well in the unconscious realm of laughter. The narrow beam of consciousness cannot illuminate behavior that lies beyond its reach, and this beam is not only highly selective, it is turned off a surprising amount of the time. In this exploration of voluntary laughter, we will abandon the myth of human rationality and self-control and let simple behavioral demonstrations be our guide.

To learn about the voluntary control of laughter, I contacted Sam McCready, master actor and director in the University of Maryland Baltimore County's fine theater department. This seemed like a logical first step, in that actors are fellow experts in human behavior, their work having been shaped by the ruthless peer review of audiences for more than 2,000 years. At various times, Sam has been the Marquis de Sade, King Lear, Tartuffe, and any number of saints and sinners. Today's role involved his teaching an improvisational acting class, and he invited me to participate in their "laughing exercise." His students gathered in a large circle and one by one each attempted to laugh. Individually, their efforts were not impressive—most of their laughs sounded forced and artificial. They laughed more convincingly when they gathered in groups of two and four and laughed with and at each other—their difficulty in laughing on cue became a legitimate trigger of involuntary laughter. In their indirect way, the struggling novice actors were announcing that laughter is under weak conscious control.
Note three simple but informative demonstrations of the weak conscious control of laughter conceived during the student exercises.

1. **Ask a friend to laugh.** Most will respond immediately with a burst of genuine laughter (the *command effect*), after which about half of them will announce “I can’t laugh on command,” or make some equivalent statement. Your friends’ observations that they can’t laugh voluntarily are accurate—their subsequent efforts to laugh on command will be forced or futile. (This lack of voluntary control does not hold for all expressions of positive affect. When asked to smile, people will comply immediately and will never comment that they can’t smile on command.)

2. **Ask your now laughless friends to say “ha-ha-ha.”** They will comply immediately with a hearty “ha-ha-ha,” an approximation of the sounds of genuine laughter. The difficulty of laughing voluntarily in the first demonstration was not, therefore, due to an inability to form the sounds of laughter—it was an inability to access the neurological control mechanism for spontaneous laughter. The present demonstration also indicates that normal, spontaneous, laughing is not the matter of speaking “ha-ha-ha.”

3. **With a stopwatch in hand, ask someone to “Laugh when I say ‘now!’” and measure the latency to the first laugh.** The reaction time may be many seconds, if the person can laugh at all. Contrast this long reaction time with the almost immediate response to the command “Say ‘ha-ha-ha’ when I say ‘now!’” Long reaction times are also associated with requests for sobbing or crying, other emotionally laden vocalizations. We cannot easily and deliberately access and activate the brain’s mechanisms for affective expression. (“Method actors” of the Stanislavski school circumvent the limited voluntary access to emotional expression by imagining a situation in which the desired response is associated.)

The indignant “Hal” is an example of voluntary, consciously controlled laughter in speech. Another case is laughspeak, a hybrid of laughing speech that communicates emotional tone and shows more flexibility than classical ha-ha type laughs. Laughspeak is especially notable in talk-show hosts, public relations professionals, and others who attempt to defuse a delicate inquiry by posing it in a laughing voice. It is also common when there is a power imbalance between conversants, as when one person is trying to ingratiate themselves to another. A striking case of this occurred with a female host of a local classical music program who produced a lot of laughspeak and giggling in the presence of prominent, usually male guests, such as famous soloists and conductors, but not in the presence of lesser lights. This effect was highly reliable, and her laughter was usually unreciprocated, in line with the previous observations of gender differences and power relationships. The power dynamics of laughter and laughspeak are obvious and quite entertaining once you develop an ear for them; they are also penetrating and uncensored because of the unconscious nature of most laugh production and the limited awareness people have about their own laughter.

YOU LAUGH—YOU LOSE read the poster advertising a comedy game show to take place one evening in the University of Maryland Baltimore County’s student union pub. “Survive one minute of comedy without laughing and spin the comedy cash wheel to win up to $200.” The producers of this show were providing me with a nice little experiment about the control of laughter, and all I had to do was show up. This naturalistic experiment complements the just described efforts to produce laughter voluntarily—the task here is to *inhibit*, not produce laughter. Anecdotal evidence suggests that we are better at intentionally inhibiting than producing laughter, but sometimes laughter is hard to contain, as during laughing fits and contagious outbursts (Chapter 7).

Once the show was under way, the actual rules of the game were clarified—a contestant would lose if he laughed or smiled (l) during a one-minute comedy barrage from one of three professional comedians. These comics were playing hardball—smiles are more readily
activated than laughs, and they are harder to suppress. The large audience groaned in disapproval. As it turned out, the comics were the ones having to sweat. Only two of the six contestants were eliminated; their smiles were so subtle that they were invisible to the booing audience. In the end, no contestant laughed. The comics were funny to the audience but they were clearly defeated in this confrontation with human nature. The audience members were entertained and treated to a demonstration they didn't anticipate—that it is easier to inhibit laughter than it is to inhibit smiling. The expressionless poker face is harder to maintain than laughlessness.

Smiling is a more nuanced, subtle medium than the ballistic blast of laughter, and its threshold for activation is much lower. Thus, smiling is a relatively “leaky,” difficult to suppress channel of affective communication. The production of smiles is, however, under more voluntary control than laughter—if you ask someone to smile, they can comply immediately. Paul Ekman and Wallace Friesen have shown that such voluntary (false) smiles are subtly different from their spontaneous (felt) counterparts, but such “false” smiles are true in the way that counts most, in being an effective, socially potent means of communication. The voluntary smile is an important evolutionary adaptation that provides increased flexibility and conscious control over facial behavior.

Neurological accidents and disease are unfortunate “experiments of nature” that further distinguish spontaneous and voluntarily emotional displays. Consider central facial paralysis, which prevents patients from voluntarily moving the left or right side of their face to smile or produce any other expression. Such left or right “hemiparesis” is produced by damage to higher brain motoneurons, leaving intact the neural pathway between the brain and face. When asked to grin, these patients produce crooked smiles—only one side of their face responds. However, they produce a normal, symmetrical smile if tickled or amused by a joke—the ongoing social stimuli activate intact neuronal pathways that are beyond conscious control. Here we glimpse the otherwise invisible hand of the ancient neurological puppeteer that controls spontaneous laughter and smiling.

The symptoms of Parkinson disease offer an informative contrast to central facial paralysis—voluntary facial movement is spared, but spontaneous facial movement is impaired. Parkinson disease is a disorder of the motor system that is associated with damage to the dopamine neurotransmitter pathway in the brain. During spontaneous social interactions, many Parkinson patients exhibit a bilaterally symmetrical, masklike face, but are able to smile normally on command.

A study of “split-brained” neurosurgery patient P. S. by Michael Gazzaniga and Joseph LeDoux offers a fitting conclusion to this chapter by reinforcing its lesson about the limits of self-reporting and nonempirical approaches to understanding laughter. P. S. had the main connection between his cerebral hemispheres (the corpus callosum) severed to control the spread of intractable epilepsy from one side of his brain to the other. The bilateral flow of information was also curtailed—one side of his brain did not know what the other side was doing. As a result of having bilateral representation of language comprehension, P. S. could respond to verbal commands presented to either hemisphere, but he could describe verbally only left hemisphere stimuli. (His right hemisphere was mute.) Although his talking left hemisphere could not access the knowledge of his surgically isolated right hemisphere, it would gamely attribute cause to right hemisphere action. For example, when his right hemisphere was ordered to respond to the printed command “laugh,” he chuckled. When asked to explain the laughter, his ignorant but talkative left hemisphere responded “Oh, you guys are really something,” an effort to rationalize his apparent bemusement.

We do not fare much better than patient P. S. when explaining why we laugh. Language and logic fail us when we venture into the nonverbal and nonrational realm. We must let laughter speak for itself through objective behavioral measurements and descriptions, and not impose our designs on its cryptic message.