

Models and Mechanisms— Funny in Theory

Imagine you're in charge of advertising an odd snack. It's allegedly salty enough to make your heart beat in your ears, with enough fat to clog a fire hose. It's also a snap to cook it, if you can call it cooking. You add boiling water to its plastic cup to unleash the delicate flavors of the dehydrated pasta, soy pieces, spice powder, and desiccated vegetables. It's manufactured in the United Kingdom—the land of, to put it politely, unparalleled chefs. In addition, the product goes by the oh-so-appealing moniker "Pot Noodles." It tastes great, but admitting you eat it is like getting caught picking your nose. What do you do?

Humor might help, as I'll explain later. For now, let's define humor as anything that might make people laugh because they think it's funny. We could go around in circles about what is

funny, but let's not waste the time. Let's leave this open and see if we can refine a definition as we go along. In this chapter, we'll sift through some ways to classify jokes into categories, discuss some theories about what makes something funny, and get into the caveats about why this work can be so difficult. This information can lay the groundwork for humor's role in communication, personality, health, thought, and the like.

There's a strategy that every good stand-up comic learns. It's named "calling the room." When the audience isn't laughing at a comedian's show, some comics just plow on through their list of jokes. But a good comic will say something. Johnny Carson was the king of calling the room. A joke of his would bomb and he'd say, "Tough crowd" or, "It's late in the week," and then the audience would often get back on his side. Jay Leno has jokingly berated one of his writers in front of the audience if a monologue of his was dying. Calling the room lets the audience know that the performer is with them, thinking and aware, not simply spouting memorized lines. As humorist John Vorhaus (1994) says, comedy is truth plus pain. Speak the truth and you're halfway to being funny.

I once played a show at The Comedy Store in Los Angeles, and had the poor luck of going on after a guy who was much more experienced and delightfully less cerebral than I was, and he was astoundingly funny. He went on to run the Ha Ha Café in North Hollywood. There's an old Yiddish saying: "Always follow a schmuck." I had clearly failed to take this advice. My opening jokes, which usually killed, were falling flat. The grumbling made it clear that the audience would soon turn on me. Although I always doubted the tales about the fear of public speaking surpassing the fear of death, I would have preferred to crawl into a coffin than get booed off the stage. I'd seen enough performers go into a tailspin in this situation. I knew that I needed to do something quickly. I could have walked through the rest of my prepared material and taken my beating. I could have put down the microphone and fled. Instead, I decided that I had nothing to lose.

I said, "Oh! So I'm not as funny as Dave?" Everyone looked up at that. I started repeating some of his jokes in a dumb voice

and got a few chuckles. Then I pointed out crazy things he should have said but didn't, and riffed about how great it must be to be so funny. Suddenly the crowd was on my side. Calling the room, speaking the truth, seemed to help. I segued into my regular material and now it was working. I finished to applause and went home happy. Tragedy averted.

Pot Noodles essentially did the same. The company called the room; they told it like it is. You've read this far, so you can guess what the company did. When all else fails, get funny with the truth. They know that a cup of dried starch isn't a healthy gourmet feast, just as a comic knows when the show is bombing. Instead of pretending that the product was pheasant under glass, the promoters faced its reputation as an embarrassing fast food. They compared it to other popular but seedy habits. One commercial shows the character Desperate Dan skulking around sordid, neon-lit neighborhoods. He enters various dives and asks in a whisper for Pot Noodles, but gets slapped across the face again and again. Finally a leather-clad lady tells him to meet her around the back. In the next scene, the two of them grunt and groan on a motel bed, forks flying from their little plastic cups as they bounce suggestively. "That felt so wrong and yet it felt so right!" Dan blurts out. The ads were a huge hit. Nearly everyone in the United Kingdom recognized the memorable campaign. It helped Pot Noodles grab market share and profits. The company's Web site claims that the British eat 155 million of its snacks a year, which is nearly five per second. Tragedy averted.

I prefer to love and study humor for its own sake, but comedy does have applications. Humor can help us even if we're not stand-up comics or advertisers. Comedy alters mood, thought, stress, and pain. Jokes and laughter may play an important role in health, mental illness, marital bliss, education, and psychotherapy. Some humor transcends time and culture. It can also get you a date, or more. With all this potential, comedy seemed destined to fall beneath the microscope of scientists. Surely a few years of concerted contemplation and experimentation

ought to uncover the grand secret of what makes someone funny. Surely science can make everyone as merry a joker as possible. After all, we developed antibiotics, put a man on the moon, and perfected the pork rind.

HUMOR RESEARCH TO THE RESCUE?

Many folks believe that humor research isn't a worthwhile pursuit. Any overarching attempt to investigate humor does run into problems. It may simply be too complicated to explain all at once. Part of the problem might arise because the word "humor" refers to too many phenomena. Funny things may have little in common other than being funny. Psychologists and other cynics often suggest that humor can't be studied at all. They lump a funny thing in with strange bedfellows like love and pornography. They know what's funny when they see it, but it can't be pinned down. Although a comprehensive model that explains every funny thing in the world would be quite complicated, humor definitely lends itself to study. Cynicism aside, experiments on comedy and mirth have generated amazing insights in the arts and sciences, leading to new ways to recognize, generate, and use funny material. These same studies have also uncovered a great deal about how we think, feel, and communicate. Devoted researchers can investigate humor, and the work pays off.

The cynics may be right, however, if they assert that humor cannot be studied in ways that are a laugh a minute. E.B. White, the author of *Charlotte's Web* and *The Elements of Style*, made this point with great fervor: "Humor can be dissected as a frog can, but the thing dies in the process and the innards are discouraging to any but the pure scientific mind" (White, 1941/2000). With a name like Elwyn Brooks White, he had to go by his initials. And he had to get funny. Otherwise, the other kids on the playground would have beaten him up. It looks like he was right about picking humor apart. I once sat with three comics

at the Los Angeles Comedy Store as we watched one of the popular new acts—a guy who later went on to a 7-year stint on television. We'd all just learned a model of humor from the phenomenal Greg Dean's Stand-up Workshop. We sat in complete silence while the rest of the crowd guffawed with gusto. At the end, one of us said, "Great show." We all recognized that the jokes were funny, but none of us laughed. We were still so new to this way of thinking about humor that we couldn't help analyzing each joke as we heard it. Picking them apart messed up the mirth. This reaction to learning about humor happens often. Fortunately, the laughter returns. Once our thoughts about the model became more automatic, we could understand the underpinnings of the material and still enjoy it. We got to have our jokes and kill them, too.

People often ask if the study of mirth is a worthwhile pursuit. Humor seems rather minor compared to cheery topics like global thermonuclear war or leukemia. Even within the social sciences, a lot of work focuses on the phenomena that frighten taxpayers the most, like skull bashers or psychotics. But positive psychology, a relatively new branch of study, challenges this focus on negative topics. Much of psychology focuses on mental illness, impairment, or other aspects of the mind gone awry. Positive psychology addresses ways for people to thrive (Peterson, 2006). It emphasizes human talents like leadership, creativity, and even humor. A keen understanding of what is funny actually could improve the process of negotiation and decrease the threat of global thermonuclear war. It might also help folks handle the cumbersome aspects of leukemia treatment. It can diffuse conflict before skulls get bashed. I don't know about psychosis, though. Hearing voices, and other aspects of the disorder, probably respond best to medication. Nevertheless, I had one client who joked with his voices to keep them from getting him down until he got his monthly shot. One study suggests that showing comedy films in the psychiatric ward makes psychotic people less angry, too (Gelkopf, Gonen, Kurs, Melamed, & Bleich, 2006).

The other problem with the study of humor is the tacit assumption that the research ought to be hilarious. It's an odd idea. Few people expect a textbook on sex to be a turn-on. Nobody thinks that a cookbook should actually taste good. Journal articles like "Perception of humor in patients with localized brain lesions" are rarely knee slappers. (Yeah, that's a real title. It's actually a great article [Koviazina & Kogan, 2008]). Truth be told, a lot of academic stuff is, well, too academic. Books and articles on the topic definitely could benefit by cutting the jargon and technicalities. But lightening up on the details can make the ideas hard to follow. Subtle distinctions—which humor is all about, really—get lost without the unfunny particulars. Surely, no one can expect a book on humor to read like the script of the movie *Airplane*. In addition, extensive joking can make books seem less persuasive and less credible (Bryant, Brown, Silberberg, & Elliot, 1981). I hope it doesn't work against me. It's a little hard to take investigators seriously if they're wearing clown noses or repeating moan-worthy puns.

Despite how much everyone thinks they know about humor, much of the popular lore is dead wrong. The relevant research covers everything from brainwaves to politics, so there's a lot to learn that's extremely interesting. But it's not always comical. Plenty of things worth knowing aren't easy to learn. Studying humor can help uncover important information about thoughts, feelings, and actions. As we figure out what makes us laugh, we discover more about ourselves, each other, and our own happiness. That's a valuable process, but it doesn't always tickle. In addition, few can help wondering if studying wit might actually make people wittier. Given the impact of humor on persuasion, health, attractiveness, leadership, and personality, the curiosity makes sense. The answer, in a word, is: Maybe. Motivated people who are willing to take a playful attitude, learn the structure of jokes, and spend time in lighthearted practice find more and more humor in their daily lives. It might not happen in an instant, but it will happen.

HUMOR AND OX EATING: THE ELUSIVE GRAND THEORY OF HUMOR

As ubiquitous and intuitive as comedy seems to be, the grand theory and explanation of all humor remain elusive. In fact, most of the models of humor are weak. Some theories rely on vague ideas that are hard to define. Others require multiple postulates illustrated with more targets and arrows than you'd find in an archery shop. No single model has clinched universal acceptance. Every kindergartner or senator can think of counterexamples for almost every theory of humor. Perhaps we expect too much. Humor is delicate and complicated. A small shift in wording or vocal inflection can kill a great joke. But then again, other sciences aren't perfect, either. Popular economic models don't account for the price of every cotton ball in Kathmandu. Computerized weather prediction is still all wet. So it's no surprise that humor theorists can't predict every time Chris Rock or your baby sister will get a giggle.

We seem to know humor, or an attempt at it, when we see it. Formal definitions are about as useful as golf clubs for a snail. Most dictionaries run a series of synonyms together. "Amusement", "hilarity", "comic", and "laughter" appear in most explanations of the word. None of these are going to help anyone who doesn't know funny. At first thought, it seems like the best way to identify funny would require gauging laughter. But relying on laughs alone to determine what is humorous remains problematic. Some laughs reflect amusement while others stem from nervousness. One revealing, recurring theme present in most formal definitions involves a focus on the *stimulus*—the joke, phrase, gesture, cartoon, gag, or tale. For brevity's sake, let's call all of these things jokes. Note that jokes are a little easier to study than all of humor. Let's think of them as any stimulus designed to elicit laughter, or its associated emotion, mirth. This emphasis on humor residing in the joke, as if what makes something funny is inherent in the thing itself, seems

rampant. Many people think jokes are inherently funny or not, independent of the listener. But other definitions leap from the stimulus to emphasize the role of the perceiver—the person who finds amusement in the joke. This interaction of the perceiver and the perceived is essential. Shakespeare put it nicely: “A jest’s prosperity lies in the ear of him that hears it, never in the tongue of him that makes it” (*Love’s Labour’s Lost*, 5, 2). Sorry about the sexist use of “him.” Hey, it was the 1590s.

Humor is really a combination of who, what, when, where, and how—there are the folks who hear the joke, the joke itself, the moment they hear it, the context, and how it’s told. We’ll get into the various aspects of audiences and the delivery of jokes, but it seems like it would be a lot easier if we had a definition of humor. Unfortunately, we don’t. Often when we know something when we see it, but can’t quite define it, we benefit from a process known as “bootstrapping” (Crobach & Meehl, 1955). Bootstrapping is a way to make subjective ideas more objective, or turn rough approximations into more exact measures. For example, there was a time when we had no definition of temperature. You can imagine that cave dwellers could all agree that huddling around the fire felt hotter than rolling in the snow. When multiple people agree about what’s hot and what’s not, we say that our measure of temperature is “reliable.” But this was still a pretty subjective process. A couple of ancient geniuses noticed that air in a container would expand when it was hot and contract when it was cold. Another mastermind noted that mercury in a tube would rise in hotter environments and fall in colder ones. It was easy to put a ruler beside the tube with precise markings. “Hot” might mean 90 millimeters of mercury or more in the tube; cold might mean 30 or less. Now a subjective sense of temperature became a more objective one. Later theories helped us define temperature as the average kinetic energy in molecules. We essentially pulled the idea of temperature up by its own bootstraps. (Philo, Hero of Alexandria, Galileo, Biancani, Fahrenheit, and Celsius all get credit for this work [Chang, 2004]).

So why not do the same with humor? The problem, of course, is in that first step—reliably identifying what’s comical. People agree on what’s warm and what’s cold a lot more easily than they agree on what’s funny. Dead baby jokes, observational humor, and shaggy-dog stories delight some but not others. A comedian friend of mine had a whole set of jokes about death. These killed in local clubs in Hollywood, leaving the crowds laughing uproariously. Then he made a trip to a hotel in the Catskills. The audience of senior citizens nearly wept him off the stage; death was not a funny topic to this crowd. His humor obviously wasn’t some inherent quality of the jokes alone, but a combination of the setting and the content. Wisecracks about mortality simply lacked any hilarity in a room full of elders who had lost their loved ones while facing the Grim Reaper. Some of the same people might have laughed at the same jokes if they’d been part of a different crowd in a different environment.

What’s funny varies in different eras, too. An acquaintance of mine had a routine about Middle Eastern folks that worked incredibly well until the attacks on September 11, 2001. He had to quit using those jokes, but he dusted them off in 2010 and got laughs once more. Imitations of Gerald Ford’s pratfalls made audiences squeal in 1976. They may never be funny again, except to old fogies who remember watching him spill out of a helicopter onto his presidential noggin. Humor is an intricate interaction between the perceiver and the perceived. That’s what makes it so individualized. But the fact leads to a nice conclusion: You are already an expert on humor. The universal indicator of what is and what isn’t funny is already yours. The planets really have to align to crack folks up. This is what makes humor not only hard to define but also delightful. With all these contributors to laughter, it’s easy to see why any model designed to account for all of comedy would have to be extensive, complicated, or impossible. Perhaps it’s just too grand a task. When puzzles grow too big and complicated, sometimes it helps to break them down into smaller pieces. That’s one way

to eat an ox. So let's begin with the idea that humor is anything that someone deems funny.

SORTS OF SILLINESS AND PLATYPI

If a single theory can't explain all of humor, maybe different models could work for different types. We need a way to arrange the funny stuff. Dividing humor into types makes it easier to talk about, and also reveals how important it really is. Human language probably wouldn't have all these words for different kinds of humor if it didn't matter. The fact that we have so many of these terms supports the idea that humor's not just one thing. There are anecdotes, wisecracks, witticisms, parodies, cartoons, and comics. There's sarcasm, irony, parody, caricature, and mockery. There's banter and joking and repartee and teasing and wordplay and Sneezy and Dopey. This is serious business.

Hair-splitting definitions of everything from the jocular to the ludicrous exist, but they often only lead to fights among linguists, psychologists, and drunks. A simple set of categories of humor, however, can make a nice shorthand for discussion. A first distinction that might prove helpful involves separating jokes from wit. The definition of wit has changed over eons, making this distinction particularly important. A joke is a form of humor that is deliberate and self-contained. That is, people tell them to get a laugh. They don't require a ton of explanation or context. Jokes tend to involve a setup and a punch line (or "punch," for those in the know). Ideally, the setup and punch are enough to get the laugh. Many have a recognizable format that immediately communicates that they're jokes: "How many teamsters does it take to put in a lightbulb?" "Ten. You got a problem with that?"

Wit, in contrast, leads to amusement in the context of a conversation. At one time, wit implied an elite, hostile mockery inherent in aristocratic games of one-upmanship. The French

film *Ridicule* documents the phenomenon nicely as each character tries to outdo the other with putdowns and affronts. Even in Freud's time, wit had more aggressive connotations than humor (Freud, 1905). Today, wit has lost its antagonistic connotations and simply means that something is funny in a given setting. Wit is less portable than jokes. A witty remark can break up a room but might require too much explanation to repeat in another environment. I've been having witty lunches with the same crew of academics for years, but retelling any of the wisecracks to my wife at dinner would be a waste of breath. Invariably, I'd have to respond to her stunned silence by saying, "Guess you had to be there." That's no way to stay married for long.

Given their self-contained, portable, repeatable nature, jokes lend themselves to easier divisions. Well, easier study anyway. What makes a good set of categories for jokes? It depends on what the categories are for. Lots of categories differ depending upon their use. In junior high school, I had two kinds of jokes: those I could tell my girlfriend's mom, and those that were funny. These sorts of classification systems, or taxonomies, can genuinely help communication, even if the one I used in junior high didn't. It's best, of course, if the taxonomy fits reality somehow. If you invent a category of humor that doesn't contain any jokes, it's no use. The goal for humor researchers has often been to provide categories that could describe all sorts of comedy efficiently.

One of the best known taxonomies is Carolus Linnaeus's categories in biology. Linnaeus (1751) put every living thing into a kingdom, phylum, class, order, family, genus, and species. It wasn't a perfect arrangement; there were always the platypuses of life. But the categories seemed to reflect what was out there. They helped people group living things in interesting ways. Anytime someone discovered a new species, there was a way to see where it would fit. Although simpler categories of living things fit most people's needs (friendly versus not, tasty versus not, etc.), this one provided a way to communicate about

narrow types or large groups with ease. This system also had one, and only one, category for each species, so we could call it “monothetic.” The categories are mutually exclusive. No animals are both rats and humans—even lawyers. Each category has defining characteristics, the attributes that are necessary and sufficient. For example, a mammal is warm blooded and gives birth to live young. Alternatively, some systems can be called “polythetic.” Members of the category share plenty of attributes, but may not have a specific one in common. Games, for example, don’t seem to have a defining quality. Some are played on a board, others on a field, and others on a court. They aren’t all competitive. (Burn through an afternoon playing *Pru* sometime. This game was designed to be noncompetitive and ends with everyone holding hands—how quaint.) They aren’t all played for fun. (Watch a televised tennis match and look at all the joy and playfulness.) They aren’t all physical. (Tiddlywinks? Care to argue for the fitness benefits of bowling?) But they’re all games. Humor might require a polythetic set of categories.

FUNNY FACTOR ANALYSIS

A taxonomy of humor as elaborate as Linnaeus’s might prove a little unwieldy, but identifying the general kingdoms sounds like a grand idea. Getting a bunch of comedians to generate some different categories might seem like a good way to start, but there’s no way to know if these categories genuinely reflect reality. This approach might not be very efficient, either. (When comics get together in groups, they tend to do little work and lots of wit-waving.) Instead, researchers took literally hundreds of jokes and cartoons that appeared to represent all types of humor. Then huge groups of people rated how funny all this stuff appeared. I have to have a little sympathy for people asked to rate jokes, cartoons, and stories as part of an experiment. Advertisements attempt humor every second. The Internet

Movie Data Base has a list of more than 113,000 comedies. Stand-up comics are only a YouTube away. All this humor seems to dwarf a captioned drawing or a few lines of text. How funny can squiggles and words be when there's so much humor available? Nevertheless, written jokes and cartoons still get laughs.

Getting folks to say what's funny in the laboratory has its own quirks. Fortunately, people seem candid about what they do, and do not, find funny if the environment is right. If their answers are reasonably anonymous, the ratings correlate with smiling and laughter in response to the joke, suggesting that we can trust their reports (Ruch, 1995). Without anonymity, answers might not be as valid. When participants in a research study report what they think the experimenter wants to hear, rather than how they genuinely feel, we call it "response bias." If undergraduates were forced to evaluate an instructor's puns as the instructor looked on, we might expect the scores to be a bit inflated. Rating Viagra jokes in front of their mothers might also lead to biased scores, though my mom would probably laugh. This kind of response bias is troublesome in research on all kinds of topics, ranging from AIDS to zoophilia. Sidestepping response bias is essential. For this reason, the best laboratory studies of humor use anonymous questionnaires in comfortable settings. Researchers then analyze the ratings in an attempt to see if they can reduce the categories of jokes and cartoons from hundreds to only a few factors. This approach can help identify types of humor without a lot of the researchers' preconceived notions creeping into the interpretation, too.

The statistical technique for identifying these factors is an aptly named procedure called factor analysis. Factor analysis takes a whole lot of variables and helps explain how they fluctuate by reducing them to just a handful of key factors. It's really just a fancy way to see if people tend to rate some of the jokes very similarly, but meaningfully differently from the way that they rate other jokes. In a sense, some jokes would go together to form a factor of their own that is distinctly separate from another factor formed by other jokes. I won't go into the math involved;

it requires Greek letters that sound like cat noises. But the factors wouldn't have to fall into obvious categories like "funny" and "not funny," especially because what's hilarious to one person is idiotic to the next. Each factor would simply contain jokes that each person rated similarly, whether or not the rater thought that all the jokes on the factor were sidesplitting or idiotic. In the end, instead of hundreds of joke ratings, a factor analysis might be able to explain the ratings with three or four key ideas.

One superb line of research started with 600 jokes or cartoons, and had all different kinds of people serving as raters (Ruch, 1992). This approach is a great one because the jokes were numerous and varied—many were simply selected at random from magazines and books. A more focused, less randomized selection would not provide results that could apply across a lot of different domains of humor. For example, if raters had only examined knock-knock jokes, the derived factors might not apply to Shakespeare's comedies. (Although, see *Macbeth*, act 2, scene 3, for some knock-knock jokes from the Bard of Avon.) In addition, the raters included all different kinds of people. They were young and old, came from everywhere from Australia to Zurich, and had a variety of economic and educational backgrounds. This approach helps create results that apply to a more diverse array of people than if the researchers only focused on the folks they could grab most easily: college students. If all the raters come from the Introductory Psychology class at an American Ivy League school or at Frankfort University of Central Kentucky, their ratings might differ markedly from each other and from everybody else in the world.

In addition, participants not only rated how funny they thought the joke was, they also rated how aversive or harsh it seemed. Note that these two ratings could be independent of each other. Aversive jokes might still be funny to some people. In memory of my Uncle Chuck, I should mention one that he told often despite its aversiveness.

"What's yellow and tastes like bananas?"

"Monkey spit."

But people might see some jokes as being funny without being aversive. A trendy example from a groovier era was:

“How many hipsters does it take to change a lightbulb?”

“What! You don’t know?”

Other jokes might strike raters as aversive but not funny. My wife’s grandmother, who caught the last train out of Vienna as World War II was heating up, does not want to guess what Hitler called his boogers (Snotzies).

Ruch and his colleagues found three factors that accounted for a lot of the variation in perceptions of humor and aversiveness. One factor, much to the delight of many and the dismay of some, had to do with the actual content of the joke or cartoon. This factor relied on the joke’s topic rather than the structure of how it worked. The subject matter, that universal theme across languages, cultures, ages, economic backgrounds, and education was—drum roll, please—sex. In fact, comparable work has suggested a sex factor of humor for more than 65 years (Eysenck, 1942). This result was no stunning surprise. Sex jokes have quite the history. Aristophanes’ comedic play *Lysistrata*, where the women withhold sex until the men agree to stop an unpopular war, came out in 411 B.C.E. (I hope comparable steps might work today.) We’ve had sex jokes for at least that long. People’s reactions are reasonably consistent when they rate material that has anything to do with double entendre, nakedness, or Rabelais’s legendary game (1524/1973) of the beast with two backs. In addition to sex, the sole content factor, two other factors arose, but these seemed unrelated to content. They had more to do with the way that the joke worked than with what it was about. One was labeled “incongruity resolution” and the other was called “nonsense.”

Mechanisms of Mayhem: The Incongruity-Resolution Theory of Humor

Incongruity resolution is at the heart of many explanations of comedy, so it’s no surprise that Ruch’s results revealed it as an

underlying factor in jokes. One of the more accessible theories of humor is Suls's intuitively named incongruity-resolution model (1972). A simplified version of the model appears in Figure 1.1. Incongruity arises when a joke or story generates an expectation but then adds new information that violates it. Legendary comic Emo Philips often says, "My grandfather died peacefully in his sleep, but the kids on his bus were screaming."

This example can help illustrate the incongruity-resolution model. Suls suggests that the setup of any comedic material leads a person to generate a prediction—an expected meaning. The comment "My grandfather died peacefully in his sleep" provides most of us with an image of the old guy lying tranquilly in bed. Suls emphasizes that the punch line of the joke has to differ from our prediction or we won't find it funny (i.e., you could see it coming). The punch line has to violate one of

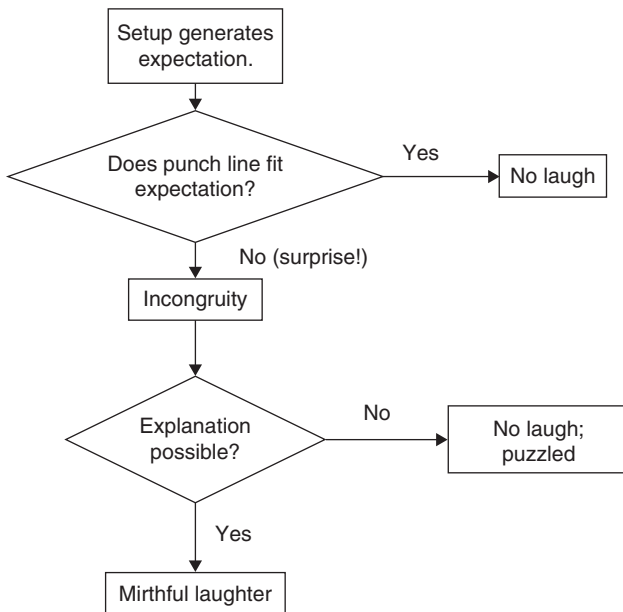


FIGURE 1.1 This is a simplified version of Suls's incongruity-resolution model.

our assumptions about what's going on and lead to a surprise. Comics often call this aspect of the punch "the reveal." The reveal surprises the audience by pointing out that a previous expectation was incorrect. No surprise; no laughter (at least in Suls's model). If you say, "My grandfather died peacefully in his sleep and everyone cried," it fits the initial prediction, offers no surprise, and wouldn't be funny even if you knew Emo Philips's grandfather. If you say, "Everyone cried when my grandfather died," it is even less funny, if that's possible. There's simply no incongruity. A comparable model, the script-based semantic theory of humor, from the linguistics literature, suggests that any joke must initially be compatible with two different scripts or meanings. These two meanings must be incompatible and run counter to each other somehow (Attardo, 1994; Attardo & Raskin, 1991). Elaborations on this idea appear in the General Theory of Verbal Humor (Attardo, 2008), a model with a name too serious for its subject matter. But in a sense, anything that can be seen two different ways can serve as the foundation of a joke, as we'll see in the last chapter of this book.

The next step involved in the incongruity-resolution model relies on how we handle the surprise. Suls (1972) asserts that humans tend to try to make sense of the world. (Perhaps he doesn't know too many politicians.) We deal with the surprise in the punch line the same way we tackle other surprises, with an attempt to solve the problem that it creates. We search for some rule, some explanation, that might make sense of this new information. We try to find some way to look at it to resolve the incongruity. The punch line "...but the kids on his bus were screaming" clearly defies the image of a gray-haired old man snug in his covers. We rack our brains for some way to get the punch line's information to follow from the setup's content. The idea that the grandfather fell asleep at the wheel while working at his job as a bus driver offers a reasonable explanation. This new view resolves the incongruity. According to the model, a structure like this one gives the joke the potential to be funny. If a punch line presents information that is

incongruous with assumptions generated by the setup, and a moment's thought resolves this incongruity by changing that assumption, we find it funny. It won't create nervous laughter or polite smiling; it will create genuine mirth. Comprehending and appreciating the joke require solving a problem of sorts, but it pays off with delight. Of course, all this brain racking happens rapidly, but the model suggests that it has to happen so as to elicit a chuckle. And, as Elwyn Brooks White and the cynics warned, dissecting the joke in this much detail makes it about as funny as crabs.

Ruch's series of studies revealed that incongruity resolution helped explain a lot of the variation in the ratings of the jokes and cartoons. Incongruity resolution seems ubiquitous in comedy. Note that incongruity resolution need not require words. Charlie Chaplin's silent films are filled with examples. In a legendary scene in *The Immigrant* (Chaplin, 1917), the camera shows bedraggled, weary refugees enduring a rocky boat ride. Charlie's character hangs over the railing, his back turned to the audience, feet flopping off the ground, and back arching as if he is fatally seasick. When he turns to face the camera, we notice quite the incongruous sight: a fish on a line. What does this fish have to do with Chaplin's nauseated ride? We realize that the character was fishing, not retching—resolving the incongruity with an alternative explanation for all his odd movements.

The incongruity-resolution model says that this aspect gives the scene the potential to create laughter. We get a setup from the view of all the refugees on a swaying ship and Charlie's odd motions when his back is turned to us. We get a moment of incongruity when he turns with a fish, but it's resolved in an instant when we see what he's been doing. Other models of humor focus on different aspects of content and structure, but most modern theories include incongruity as an important component. Alternative models jump through hoops while explaining why they don't include incongruity, and methinks sometimes they protest too much (see Latta, 1998).

Keeping Surprise to a Minimum

Suls's original incongruity-resolution model emphasizes that the surprise of the incongruity can get us started in our search for the resolution and our appreciation of the joke. Nevertheless, data suggest that there shouldn't be too much surprise. Plenty of jokes told in everyday life begin with, "Have you heard the one about...?" They keep the surprise to a minimum. Most punch lines in incongruity-resolution jokes aren't astonishing bombshells. One study asked people to rate the predictability of punch lines in jokes, and then asked other people to rate how funny the jokes seemed (Kenny, 1955). Surely enough, the predictable punch lines were generally funnier. Another study emphasized that the folks in Kenny's (1955) work had already heard the punch lines when they rated them, potentially altering their claims of predictability (Pollio & Mers, 1974). As an alternative, these guys played tapes of stand-up routines and stopped them right before each punch line. Participants then wrote down what they thought the punch line would be. Trained raters then coded whether or not the punch lines matched what these participants guessed, assessing their predictability. These predictability ratings correlated significantly with how much people laughed in response to the jokes. Both of these studies suggest that predictable, rather than surprising, punch lines can be funnier. These data belie other models that rest on the violation of expectancies as inherent in humor, too.

Nonsense: Incongruity With No Resolution

The other factor that appeared in Ruch's examinations of jokes was nonsense—incongruity with no resolution. Like incongruity resolution and unlike sex, this factor focuses on structure rather than content. Part of the beauty of nonsense is that it can involve any topic at all—even multiple, outrageously unrelated topics. Football might meet up with sponge diving. Rappers might zoom to Mars in tuxedos made of bacon. These jokes tend to appear completely nutty and bizarre. They contain the incompatible, surprising aspects that are central to

the incongruity-resolution model, but the resolution is incomplete. The search for the new rule that makes sense of the incongruity never quite succeeds. Suls's model suggests that this situation should lead to a puzzled reaction rather than laughter. Many times, for many people, it does. Some folks find jokes that use this structure hilarious; others truly despise them. It may say quite a bit about Shakespeare's "ear of him that hears it."

It's hard to explain why some unresolved or partially resolved incongruities seem funny while others leave folks scratching their heads. This problem with nonsense becomes a challenge for models of humor. Gary Larson's infamous *Far Side* cartoon "Cow Tools" shows a heifer standing on two legs beside a workbench covered with instruments that look completely useless and vaguely udder-like. Even a Troglodyte would have ridiculed these gadgets. The incongruity is definitely there—we don't expect cows to have any tools at all. And there's certainly something of a surprise in the appearance of this gear. But the view that can resolve it all is hard to find. The work seems to suggest something about our stereotypes of early instruments. Perhaps those who denigrate primitive human tools should cut our ancestors some slack, particularly given how unsophisticated the inventions of other animals would be. Nevertheless, this view doesn't quite explain this bizarre scene. The drawing generated so much mail that the cartoonist had to issue a press release in an attempt to explain that there was nothing to explain (Larson, 1989).

These two structural factors, incongruity resolution and nonsense, were not completely independent of the content-oriented sex factor. Some jokes on sexual topics work by resolving incongruities. One joke that won't make my publisher wince comes from an academic article (Long & Graesser, 1988).

A man invites his date back to his apartment, opens a bottle of bourbon, and begins pouring it into a glass for her.

"Say when," he says.

"Right after this drink."

The punch line is an incongruous, unexpected answer to a question about how much bourbon this woman wants. But the incongruity is resolved if we view her statement as the response to a more pressing inquiry. There is sexual content within an incongruity-resolution structure.

Other sex jokes weigh largely on the nonsense factor. These have sexual content and work via an incongruity that is not resolved. The animated television show *Family Guy*, a notorious source of this kind of humor, provides an example of a sex joke that works partly via nonsense. In the episode "The Road to Germany," Brian explains to Stewie that failing to use his time machine to rescue Mort would be an egregious error. "That'd be more irresponsible than silent movie porn," he states. Suddenly the scene cuts to a grainy, black and white film of a man and a woman, in bed, who are accompanied by piano music. Via the silent-movie-style intertitles, the woman asks if the man has rubbers. He reveals his rain boots. The incongruity of showing the rain boots in the discussion about rubbers is resolved. Thanks to the knowledge that rubbers can mean either condoms or rainwear, this joke makes sense. But Brian's initial, incongruous expression "That'd be more irresponsible than silent movie porn," never quite gets resolved. The cut away may imply that porn from the silent era was irresponsible because it depicted unsafe sex, but this point isn't communicated exactly. The scene then returns to Brian and Stewie as if nothing ever happened, adding to the sense of nonsense. The sexual content and nonsense components would suggest that this scene would weigh largely on both factors.

Making Sense of Nonsense

Ruch's three factors may not fit everyone's preconceptions about humor, particularly for folks who are accustomed to focusing on content. After all, where are the fart jokes? But they provide a great shorthand for talking about humor and a nice framework for helping to explain it. The nonsense factor actually presents a challenge to the incongruity-resolution model

because a complete resolution is not essential to this form of humor. Sometimes, in the right environment, incongruity may be all that it takes. Odd events that never make sense can still be funny, for both children and adults (Pien & Rothbart, 1976). Critics of the incongruity-resolution model suggest that one line of laboratory findings supports the idea that resolution may not be essential to humor.

This research began with a crafty study by Nerhardt (1970) that used a weight judgment paradigm. These experiments typically ask people to close their eyes and lift a small, round weight, often about a pound. This initial weight serves as a reference. Participants first lift this reference weight and then lift a comparison weight to estimate if the second one is lighter or heavier than the first. The first 10 comparison weights are within a couple of ounces of the 1-pound reference weight. Most participants work assiduously in their judgments. They lift each weight multiple times and mark their answers with great care. The last weight is then dramatically lighter (by 14 ounces) or heavier (by 6 pounds) than the reference weight and all the previous comparison weights, creating a drastic incongruity. Lifting this last weight often makes people crack a smile. They report that they find lifting the deviant weight funny or amusing. As psychology researchers are wont to do, they altered all kinds of other aspects of the experiment and asked participants a plethora of other questions in doing additional work. The results suggested that the smiles didn't stem only from surprise, embarrassment, tension, or anger. Several researchers assert that this result means that resolution is not essential to humor (Deckers, 1993).

Supporters of the incongruity-resolution model argue that the weight judgment paradigm actually does have a resolution. They assert that participants lift the last weight, recognize the incongruity, and resolve it with the idea that this last weight is some sort of joke. This explanation seems to go a bit beyond the way the model was initially proposed. Now it's not as if the punch line creates and resolves an incongruity, but it's as if it

communicates that the expectation of the experiment is out of whack. Lifting the disparate weight is an incongruity resolved by the realization that the situation is really a joke. The result clearly suggests that broadening the scope of the incongruity-resolution model could help explain more examples of humor. It might even help us handle the nonsense problem (Wyer, 2004; Wyer & Collins, 1992). Suls, perhaps feeling cornered, emphasized that he designed the incongruity-resolution model to explain humor comprehension, not humor appreciation (Suls, 1983). Additions from other theorists helped. These new theories added more conditions for specifying what's funny and when it's funny.

Playful Perspectives and Diminished Punch Lines

As part of a more general framework of motivation called "reversal theory," Apter (1982) suggested that humor requires important conditions besides an incongruity, whether they are resolved or not. First, humor is part of play, so its appreciation requires a playful mental state. Apter's periods of play are distinctly separate from the goal-directed, serious, "real world" mindset of moments while on a mission. Everyone has stretches of each. It's a bit like the distinction between focusing on a journey or focusing on a destination. A leisurely drive through hillsides has no goal other than the enjoyment of the ride. In contrast, as an ambulance speeds to the emergency room, there's no time to smell the asphalt. Apter calls the goal-directed mindset the "telic" state. *Telos* is Greek for "purpose" or "goal." The playful mental state is "paratelic," meaning "alongside the goal state." The paratelic conditions would be more mellow, oriented in the present, and spontaneous. The chance of laughter is a lot higher.

The point may seem obvious, but it's essential. If Nerhardt had done the original weight judgment task using identical suitcases of disparate weights, lifted by people who had just

stepped off a train, few would have found a markedly heavier or a dramatically lighter suitcase to be much of a giggle. They probably would have preferred to get home already. One formal experiment offers support for the influence of a paratelic state. Participants read stories that either did or did not have a punch line. Some were told to read the stories as they would any magazine or novel—more paratelic instructions. Others were asked to read the story in order to provide important, formal ratings of its level of humor—a more telic, goal-oriented condition. Of course, everyone rated the stories with punch lines as funnier, but the impact of the punch lines was greater in the paratelic condition than in the telic (Wyer & Collins, 1992). I bet that a group instructed to search the stories for typos would find the punch lines even duller. I'm sure that my copy editor would agree.

Apter continues by asserting that in addition to requiring a playful, paratelic setting, each joke itself must have certain qualities, including a punch line that leads to diminishment. Essentially, the setup suggests a serious predicament that the punch line reveals as less serious—it's diminished. Herbert Spencer (1860) first alluded to this notion, calling it a "descending incongruity." It's a bit like discovering that a telic situation is actually a paratelic one, which can certainly prove enjoyable, if not funny outright. A *New Yorker* Caption Contest winner provides a good example of diminishment. In cartoon number 124, over a dozen people crawl among the cacti under a fierce sun in a dehydrating desert. Apparently they will all soon die from thirst. One turns to another and states, "I don't know about you, but I'd be willing to pitch in for a new contact lens." The potentially critical condition of imminent death is diminished to a mere search for a plastic disk.

The idea of diminishment seems important for identifying situations that may have incongruity and a resolution but no genuine mirth. Imagine if the scene in Chaplin's *The Immigrant* went from a less serious situation to a more serious one. Instead of panning across a bunch of nauseated faces, the camera might

show lots of people fishing off the side of the boat. We would then see Charlie's feet flailing in the air and assume he was fishing. He might then turn with a hanky (or worse) across his mouth. The incongruity would be resolved when we realized he wasn't fishing; he was seasick. Though the incongruity is resolved, the second situation is not a diminished one. Seasickness seems more serious than fishing. Few would find this scene funny—even my Uncle Chuck. In fact, many horror stories work by resolving an incongruity in this opposite direction of diminishment, with the resolution suggesting a critically more serious situation than originally expected. The competitive ballet academy that turns out to be a coven of witches, an attractive date who is actually a vampire, or a pious clergyman unmasked as a child molester remain staples of the horror genre. Much of the laughter at horror movies is of a nervous nature rather than mirthful, too (Lewis, 2006).

Apter emphasizes that diminishment need not happen to the characters in a joke; the quality of the communication between the teller and the listeners could be diminished as well. This approach suggests that the punch line can work in two different ways: within the joke and above it. The punch line can reveal an incongruity based on a previous assumption within the story of the joke, as in Emo Philips's grandfather's dying in his sleep. Or it can communicate on another level, *above* the content of the joke, so to speak. Diminished punch lines that work above the joke send a message that the whole story and the telling of it require a less serious interpretation. An example comes from my Uncle Tom, Chuck's older brother.

A traveling salesman stops at a farmer's house to ask if he can stay the night.

"Sure, you can stay," says the farmer, "but you'll have to sleep with my three dogs."

"Dogs!" the salesman exclaims. "I must be in the wrong joke."

The punch line communicates to the listener that the whole story is a bit of a scam, violating assumptions about the way

a joke is told rather than an assumption within the words of the joke.

Any comment that undermines the formality of a conversation can diminish the situation and potentially generate a smirk or two. This kind of diminishment can help explain everyday examples of wit that might not fit standard incongruity-resolution models. Nonsense jokes may create this kind of situation. Their punch lines often communicate the thought that “this ought to make sense but it doesn’t; so don’t take it so seriously.” This kind of diminishment has helped students endure some astoundingly dull lectures and brought me some teaching awards, too.

Shaggy and Diminished Dogs

Shaggy-dog stories can work via this form of diminishment, when they work at all. These convoluted tales begin like important parables, but they subsequently end with some absurd conclusion. The punch line reveals that the content of the story itself is diminished, which may explain the humor in this format. My dad takes 40 minutes to tell the original story, which involves a man who owns a disheveled mutt. Everyone raves about her supreme shagginess and encourages him to drag the canine to the queen to receive the substantial cash prize for having the shaggiest dog. At every turn, new characters confirm that this hound definitely will win the award. When the man reaches the throne, the queen states flatly, “That dog’s not shaggy.”

Apter’s model suggests that our usual view of social interactions that involve stories of this length creates an expectation of an important message. The punch line diminishes the content. How a yarn like this generated a whole category of jokes remains a mystery, but many shaggy-dog stories reveal the diminishment of their content via a punch line that involves a pun. Puns, which Samuel Johnson allegedly called the lowest form of humor, rely on words or phrases that sound similar but have different meanings. My stepdad tells a shaggy-dog story

that involves a man who offers to pay his friend Arthur to strangle his wife for him. Arthur has no experience with murder, so he agrees to commit the crime for two rolls of pennies. The murder is successful but the butler and the maid catch Arthur in the act, forcing him to kill them as well. The next day's headline reads, "Artie Chokes Three for a Dollar." Again, the punch line suggests that a potentially serious news story is not news at all. It's not the content of the story that is reinterpreted, as in an incongruity-resolution joke, but it's the context of the storytelling that is diminished. This view of diminishment can explain how these stories work. Unfortunately, it does not explain how my mother married two such storytellers.

Slapping Sticks, Aggression, and Superiority

Note that diminishment might also provide a novel account of the appeal of another form of humor: slapstick. The hallmark of slapstick is exaggerated aggression that causes inordinately little harm. The original slapping stick itself—two boards connected so that one smacked loudly against the other without applying much force—had diminishment built into it. Actors could bop each other and generate plenty of noise without injuries. Each whack suggested a serious situation, but each reaction revealed a harmless, diminished one. Aggressive humor like this inspired a lot of early theories of comedy, including an aside from Plato (360 B.C.E.). Up to a point at least, gags that are more hostile also appear funnier (Bryant, 1977; Zillmann, Bryant, & Cantor, 1974). (Increased hostility can backfire if it's too severe. The comedy instructor extraordinaire Greg Dean tells a story of a crafty slapstick routine where he whacks a partner with a mop. When the two got so good at it that they could make the smack seem particularly hard, audiences actually gasped, instead of laughing [Dean, 2000]). Freud (1905), the father of psychoanalysis himself, viewed jokes as an opportunity to enjoy repressed sexual and hostile impulses without upsetting internalized standards of propriety. They allow us to let our own sexual, violent urges eke out in an acceptable way.

What often makes these urges acceptable is the diminished status of the joke.

Others assert that humor involves a feeling of superiority. These theorists even depict benign wordplay as a sort of dominating trickery. They view pun-induced groans as declarations of defeat (Gruner, 1997). This approach is hard to disprove. If each incongruity that could lead to a laugh essentially pulls a fast one on the perceiver, there's no way to have a joke without a smidgen of hostility. Larson's "Cow Tools" becomes bovine aggression; Chaplin's fishing scene in *The Immigrant* chides viewers for thinking that he wasn't fishing.

The notion of superiority as an essential requirement for humor seems unlikely, given the innumerable comics who ridicule themselves for laughs. But superiority theorists claim that self-deprecating humor becomes a domination of who we were before now. The self-deprecating comics of the present moment are proving themselves superior to their former selves. A friend of mine tells a story of how he once had a headache and so his mother gave him an aspirin. He had no idea how an aspirin worked, so he stuck it in his bellybutton. Superiority theorists suggest that even though my friend is seen as the butt of his own joke, the story involves his current self, at age 40, poking fun at his previous self, when he was only 21. With this kind of time lag, perhaps the superiority of the current self over the former self makes some kind of sense.

Nevertheless, a host of comics mock themselves in their current state and at the current time. These jokes make this interpretation of superiority seem a bit odd. Louie Anderson, a stand-up talent whose weight is dramatically above average for his height, calls the room about his size when he comes on the stage. He moves the thin microphone stand and says, "I'll get this out of the way, so you can see me." This opener invariably gets a laugh. The only way that Louie could genuinely think that he could hide behind a thin metal rod would require an IQ below freezing. By making himself seem both fat and dumb in the current moment, Louie is hardly dominating anyone,

including any previous versions of himself. Perhaps the superiority aspect comes from the audience's feeling both thinner and smarter than the comic, but the idea of diminishment may offer a reasonable alternative explanation. Louie's incongruous comment suggests that a serious, taboo topic (his weight), is not so serious because he's well aware of the issue.

Although aggressive jokes certainly disparage their subjects, diminishment doesn't have to be negative. Apter's diminishment approach can help humorists generate punch lines with a broader scope than can mere domination, too. No one need be harmed or ridiculed. Each punch line can move a joke from a serious topic to a less serious one without violence. Moe Howard, of Three Stooges fame, need not have bashed his brothers, Curly and Shemp, to get a laugh. Humorists can make a topic funny by making it seem mundane; the poke in the eye is optional.

Diminishment in the Laboratory

Although diminishment seems common in a range of humor, only an experiment could support the idea that it actually makes things funny. Some artful work in the laboratory has taken some steps in this direction. Nevertheless, the work is not perfect. Researchers started with ambiguous stories. One story sounded like two people planning to kill someone, but an ending sentence revealed that they were actually trying to open a jar of pickles. Participants came to the lab and read different versions of the story. Some read the version that included the revealing punch line, shifting the tale from the murderous to the mundane. Those who read the alternative version, which sounded like a threatening plot throughout, found the story significantly less funny. The version that included diminishment was funnier, potentially supporting the theory (Wyer & Collins, 1992). Unfortunately, as far as I can tell, the unfunny version lacked incongruity as well as diminishment, making the results hard to interpret. The ratings might have dropped from a lack of incongruity rather than a lack of diminishment. This study

actually needed a third condition—one that had incongruity but lacked diminishment. If the story seemed to be about murder but in the end had an incongruous sentence that made readers realize it was actually about a nuclear holocaust, then that would have done the trick, although I still suspect that the pickle version would be rated funniest.

In another experiment, researchers told participants that they would have to handle a large, white lab rat. Some learned that they would need to lift the rodent and hold it; others were told that they would have to take a blood sample from the red-eyed rascal. The experimenters provided a lab coat, elaborate cages, and detailed instructions in an effort to make the situation as credible as possible. Once the participants reached the rat, however, they saw that it was rubber. Most found the fact funny. Those who had expected to draw blood rated the experience as significantly more amusing (Shurcliff, 1968). These results might have arisen for many reasons, but a greater diminishment led to greater humor. Apter's work is particularly sensitive to the context of the joke. The punch line must reduce importance in a specific setting. This predicament with the rat would not be funny in other contexts. Imagine a doctoral candidate who must experiment on one more rat to finish a dissertation. When she reaches in the last cage to find Shurcliff's rubber rodent, she is not amused. This situation is not diminished in seriousness in relation to the expectation. It's potentially a complete drag.

Nevertheless, one counterexample may reveal that the definition of diminishment in context might grow slippery—or, perhaps, suggest that no single theory of humor can account for everything that is funny. Recall, again, Emo Philips's joke, "My grandfather died peacefully in his sleep, but the kids on his bus were screaming." We walked through the resolution of incongruity in this joke previously. The question remains: Is the situation described in the punch line diminished in relation to the original expectation? A bus squealing down the road, filled with shrieking children and a lifeless driver, seems a tad

grimmer than an old fellow meeting his Maker in bed. Fans of the idea of diminishment might emphasize that the communication itself is diminished in this case, as it is in a shaggy-dog story. It seems unlikely that Emo would tell the tale in this manner if his grandfather had actually expired while in this predicament. He must be kidding. This interpretation emphasizes that either type of diminishment can contribute to the humor in the punch line—a diminished situation within the joke or as part of the communication. As a thought experiment, let's change one word of the punch line to alter the diminishment within the joke itself: "My grandfather died peacefully in his sleep, but the kids on his bus *died* screaming." Compared to the original version, this punch line is markedly less diminished. It also seems less droll.

LAUGHTER: AROUSAL AND RELIEF

Although Apter's theory emphasizes that diminishment is important for humor, he never precisely explains why. Intuition would suggest that when a punch line reveals that a potentially serious situation is not serious, anyone would experience a bit of relief. Theories of humor that rely on relief have a long history (Kant, 1790; Spencer, 1860), and never quite seem to die out (Latta, 1998). They suggest that laughter dissipates pent-up energy. If a setup sounds menacing but a punch line reveals it's innocuous, the initial angst disappears. Andy Kaufman's disheveled, snot-nosed appearance on David Letterman's show in 1980 generated astounding discomfort and raucous laughter. It's unclear who was, or who wasn't, experiencing genuine mirth related to humor. Letterman looked downright infuriated. Years later, Crispin Glover and Joaquin Phoenix pulled the same trick on Dave, who must be getting pretty weary from it. Shurcliff's (1968) work with the rodents revealed that those who were most anxious in the beginning found the rubber rat the funniest.

Nevertheless, plenty of humorous situations begin with a signal that menace is limited. These signs make these relief theories seem problematic. How anxious can a listener get when a tale begins with, "Have you heard the one about the...?"

Other research suggests that the notion of relief may be irrelevant. Instead, arousal makes things funnier, and funnier things increase arousal. Folks who are more stimulated view jokes as more humorous than folks who are less stimulated. A favorite professor of mine performed the classic experiment on this topic (Schachter & Wheeler, 1962). The participants were randomly assigned to one of three conditions. One group received an injection of adrenaline, the source of the body's "3F" response, which inspires fleeing, fighting, and mating. This shot aroused them considerably. A second group received a sedating drug. A third got an injection of saltwater. Participants then watched a slapstick flick. An experiment like this one would never get past an ethics committee today, but this was back in what Schachter often referred to as "the good old days." The people who received the arousing drug rated the film as funnier. They smiled and laughed more, too. Those who got the sedative scored the lowest on all measures; the saline group fell between the other two. Further work revealed that almost any kind of arousal—positive, negative, or otherwise—can make jokes hilarious. For example, researchers had participants read sexy or gruesome stories before rating jokes. They found that either form of arousal made the gags seem funnier (Cantor, Bryant, & Zillmann, 1974). This result reminds me of a time when I saw a rising comic have a bad set, lose his cool, and start yelling at the audience. It was a shocking, dreadful experience, but the woman who went on next had the best show of her life. The crowd's arousal from the first comic's uncontrolled outburst might have worked to her benefit. Since then, I've always wondered if paying the previous performer to flip out might make an act go better.

Folks who are more aroused appear to think that things are funnier, at least up to a point. But it doesn't look as if relief

from arousal is the sole explanation for why diminishment works. In fact, monkeyshines enhance stimulation, rather than dissipating it. Jocular films, jokes, and cartoons increase stress hormones, skin conductance (essentially a measure of sweating), muscle tension, blood pressure, and heart rate (Hubert, Möller, & de Jong-Meyer, 1993; McGhee, 1983). Humor certainly relates to arousal; it may be an emotional response of its own. This seems to be one explanation for how diminishment might be important even if it's associated with an increase in arousal. Reducing a topic's importance doesn't require reducing an audience's stimulation. In fact, the diminishment that leads to laughter also increases arousal.

Thus far, jokes appear to contain a topic that can be seen two different ways, and a setup that creates certain expectations about what's going on (Attardo, 2008). The punch line adds new, potentially surprising information that is incongruent with the expectations inherent in the setup. This incongruity might or might not be resolved. The punch line should provide clues to an alternative way to view the information in the setup, so that it is consistent with the punch line, solving the incongruity and potentially leading to a guffaw or two. If the incongruity is not resolved, the whole communication is diminished. The perceiver changes perspective from viewing the material, the story itself, as potentially serious to viewing it as mundane.

THE IMPOSSIBLE DREAM: A COMPREHENSIVE THEORY OF HUMOR

Humor appears in many types. A comprehensive theory of every type may prove impossible, perhaps because the various forms don't all share a single, defining quality. One form of humor may differ completely from another in every way, save for making someone giggle. Dividing humor into jokes (including cartoons, visual gags, or spoken words) and spontaneous wit (the

happy banter that occurs in conversation) helps focus the theories. It also suggests that perhaps no single theory can account for all of humor. Self-contained jokes and everyday wit might work in varied but comparable ways. In addition, some types of jokes might work differently than other types, and some types of wit might work differently from other types of wit, too.

Jokes appear to involve a single topic that can be seen in two different ways. Many rely on setups and punch lines. Setups tend to create an expectation. The punch line tends to violate the expectation in a special manner. The punch line often provides new information that seems incongruous with the expectation created by the setup. Comics have a name for the components of the punch line that uncover the incongruity: "the reveal." The reveal may create a feeling of surprise, but astonishment doesn't seem essential to the humor. Some jokes have a reveal that leads an audience to come up with a reasonable explanation for how their initial expectation went awry. The explanation often includes the realization that something they thought was serious is markedly less so. This explanation resolves the incongruity and leads to laughter. These incongruity-resolution jokes are common and popular. Other jokes seem to work on a different level. Instead of offering a genuine resolution of the incongruity within the joke's story, the punch line communicates that the whole tale is in jest. This nonsense generates laughs, but it's hard to predict when it will work and when it won't. Spontaneous wit has proven more difficult to study because it's hard to bring it into the laboratory. The banter that appears in everyday conversation seems to fit the structure and topics found in jokes. Catalogs based on forms of humor and content are numerous and varied, but they reveal a lot about the commonalities of funny subject matter.

All these different forms of gags and banter provide a quick way of discussing diverse types of humor. Questions remain. So far, the various categories of humor seem to miss its inherently playful, social aspects. Laughter seems important for

forming new friendships, maintaining close ones, communicating interest and appeal, and attracting a date or three. Few people write one-liners for themselves alone. No one makes wisecracks to the refrigerator. But jokes and banter can form a two-edged sword. With humor, we can share our joy with others, show off our own wit, or discuss tough topics with less fear of offending. But we can also disparage ourselves, others, the world, and the future. Still, better a double-edged sword than no sword at all. Without humor, we may all find ourselves sitting around with a steaming cup of Pot Noodles and no one to share them with. Let's look in the next chapter at humor's interpersonal aspects.