

Opinion: What makes things humorous

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In a familiar parable, a group of blind men try to discern the shape of an elephant, but each man's perspective differs depending on whether he's touching the trunk, tusk, or tail (Fig. 1). After 2,500 years of studying humor, scientists similarly have differing perspectives on what makes things funny (1). We present three common perspectives on humor. Although each is insightful, no one perspective suffices to explain why so many dissimilar things—tickle attacks, foolish behavior, puns, absurdities, and sitcoms—can be humorous. However, integrating the three perspectives into an account of humor as a response to benign violations discerns the whole animal from its parts and thus better explains how laughter and amusement come about.

One perspective discusses humor's negative underpinnings. Accumulating evidence across academic disciplines identifies how humor is typically preceded by a violation, or some kind of threat to a person's well-

being, identity, or normative belief structure (2). Ethologists find that friendly physical aggression, such as rough-and-tumble play or tickling, produces laughter in nonhuman animals, and the so-called victim does more of the laughing (3). Anthropologists document how people across cultures participate in joking relationships by teasing and insulting one another using "a peculiar combination of friendliness and antagonism" (4). Even simple verbal statements are more humorous when they are illogical (e.g., "a pig with impeccable table manners") or aggressive (e.g., "a donkey that kicks below the belt") than when logical and nonaggressive (e.g., "a cow that eats grass") (5). The etymology of humor-related words also points to humor's dark side. The word "funny" can reference something that seems peculiar, and saying that someone possessed humor once meant the person behaved strangely or was mentally troubled (1).

A second—ostensibly conflicting—perspective reveals that humor occurs when things seem safe, playful, acceptable, or benign. Psychologists find that frightening, anxiety-provoking, and otherwise negative experiences can evoke humor when the situation is playful (1). For example, people told that they would be extracting blood from a live rat were amused to discover a toy rat (6). Similarly, experimental participants who read a potentially humorous story about a murder plot or a sexual encounter were more likely to find the story amusing when they read it for fun (i.e., when they were in a nonserious state of mind) than when instructed to carefully evaluate its content [i.e., when they were in a serious, goal-oriented state (7)]. Additional evidence comes from physiology studies that show that laughter corresponds with motor inhibition and muscle weakness, changes associated with being in a safe environment (8). Moreover, neuroscientists document how jokes and cartoons activate areas of the brain that are associated with positivity and reward (9). This finding is revealing because positive emotions generally occur only when people feel safe from harm and immune to pressing concerns (10).

A third perspective helps reconcile the previous two by associating humor with conflicting, ambiguous, or incongruous interpretations. Linguists propose that script opposition—a text that can be interpreted multiple, opposing ways—is a common characteristic of verbal jokes (11). For example, a baker could interpret the compliment "nice buns" as praise of either his baking ability or his appearance. Neuroscientists affirm that humor perception corresponds with activation in brain areas associated with incongruity detection, including the temporo-occipital junction (9). Humorous videos (e.g., a child catapulted into the air by an inflatable couch) elicit greater temporo-occipital junction activation than either nonhumorous, positive clips (e.g., children breakdancing) or non-humorous, neutral clips (e.g., children riding bicycles) (12). Even behavioral responses to

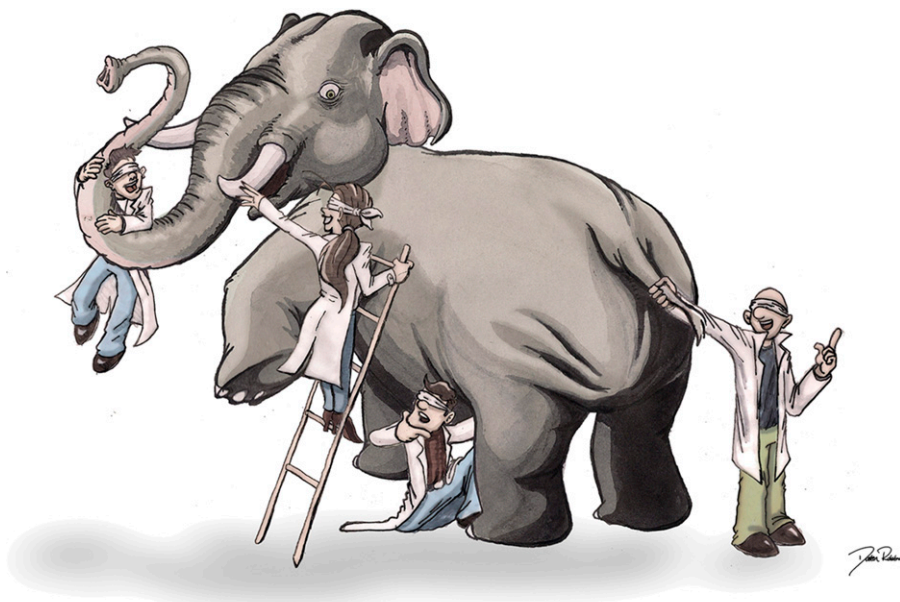


Fig. 1. In a parable, a group of blind persons attempt to discern the shape of an elephant, but each has a different perspective depending on what they're touching. In the study of humor, scientists similarly have typically only examined disparate aspects, but have had a hard time identifying the whole of what makes things funny. Illustration by Dustin Rolstad.

Author contributions: C.W. and A.P.M. wrote the paper.

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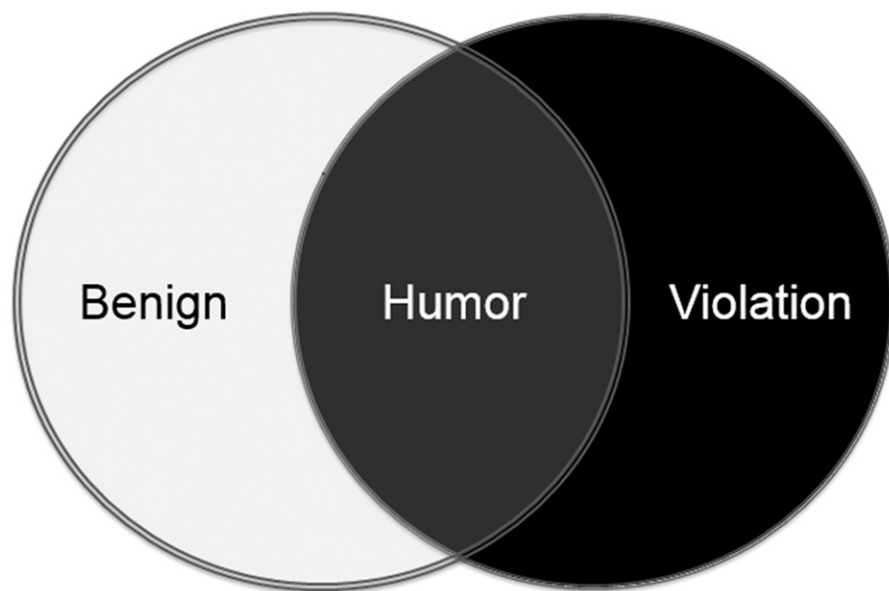


Fig. 2. Cross-disciplinary evidence suggests that humor arises from simultaneous perceptions that something is threatening or wrong (violation) and harmless or okay (benign).

tickling suggest conflicting interpretations; tickled experimental subjects show facial movements associated with both discomfort (e.g., grimaces) and pleasure (e.g., smiles) (13).

Putting the perspectives together suggests that people experience humor when: (i) something seems threatening, negative, or wrong; (ii) things seem safe, acceptable, or okay; and (iii) both interpretations occur at the same time. In other words, humor is triggered by benign violations (Fig. 2). Benign violations likely originated developmentally as threats to physical well-being, such the presence of an “attacker” in rough-and-tumble play. As humans evolved to develop a complex sense of self and systems of culture and logic, however, the list of things that could go wrong (yet be okay) expanded from physical provocations (e.g., tickling, play-fighting) to include threats to identity (e.g., foolish behavior, teasing), logic (e.g., absurdities), communication norms (e.g., sarcasm, puns), and social norms (e.g., most scenes from *Seinfeld*).

A benign violation account helps explain why seemingly divergent experiences trigger humor. Tickling can prompt laughter because the tickler behaves like an attacker, but the tickle attack is playful and harmless. Puns, on the other hand, typically include a grammar error or violate a communication norm while simultaneously being correct according to an alternative norm. For example, the spelling errors in “I’ve relished the fact that you’ve mustard the strength to

ketchup with me” all correctly spell homonym hotdog condiments. And as the “nice buns” compliment illustrates, many puns supplement the linguistic or communication violation with double entendre or some other taboo interpretation.

The account also helps explain why similar experiences trigger laughter in some contexts but not others. For example, the same touch that prompts laughter from a trusted tickler won’t trigger laughter if the tickle is self-inflicted (no violation), nor will it trigger laughter if the tickler is a creepy stranger (not benign). Similarly, puns are humorous when they can be interpreted as both wrong and acceptable. For example, “nice bread” lacks the violation that makes “nice buns” humorous, whereas “nice butt” lacks the benign interpretation.

What is humorous is highly subjective and varies considerably from person to person and culture to culture. A benign violation

account helps explain why. Foolish behavior, such as a keynote speaker forgetting to zip up his fly, may amuse an audience who doesn’t care about the reputation of the speaker (benign violation), embarrass the speaker’s family (not benign), and—as long as he remains oblivious to his oversight—have no effect on the speaker himself (no violation). Similarly, audible flatulence at a formal family dinner may horrify a mother who considers the social transgression unacceptable (not benign), amuse a teenage boy who has yet to internalize dinner etiquette norms (benign violation), and have no effect on a baby who doesn’t know that people are not supposed to behave that way (no violation). Even the jokes in popular sitcoms, such as *Seinfeld*, may seem too tame for some viewers (i.e., no violation) yet too risqué for others (i.e., not benign). Cultures differ in what they consider humorous in large part because of they have different standards for what is wrong and what is okay. For example, a cartoon depiction of Muhammad may be humorous to some Western cultures that consider the heretical image acceptable (i.e., benign violation) yet not to Muslims, who consider cartoon depictions of the prophet intolerable (i.e., not benign).

Embracing an integrated, cross-disciplinary perspective on humor, nonetheless, leaves several questions unanswered. Future research will have to clarify the specific conditions needed to trigger three distinct appraisals: that a stimulus is a violation, that the stimulus is benign, and that the stimulus is both at once. As our understanding of humor deepens, scientists may be able to turn to an even more perplexing yet important question: how can people live a more humorous life? Enhancing people’s ability to produce and appreciate humor would greatly benefit relationships and well-being, not to mention a lot of bad sitcoms.

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