

## Laughing while talking

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Like many linguists who are interested in discourse, I have spent a great deal of time transcribing speech, and like many others I have frequently come across instances of laughing. The easy way out is just to ignore them, or to write nothing more than the word “laugh” in parentheses, but transcribers often go farther than that, perhaps writing something like “heh heh heh heh” or “mh hih hih huh” (*cf.* Jefferson 1985). In Santa Barbara there has been a tradition of writing each pulse of laughter with “@,” as in:

(1) @@@@=@,

In this case there were six laugh pulses. The equals sign shows that the last pulse was lengthened, and the comma shows a final rising pitch contour. There is a need, however, for additional transcription conventions that will capture more of the variety to be found in this special kind of sound. I make a few suggestions in this essay, but more are needed to cover the full range of variation.

Sooner or later one may wonder when and why people make sounds like these. The literature on laughter is extensive (see Ruch and Ekman 2001 for a review), but as far as I know the topics I discuss here still have not been adequately covered. My own interest goes back to the 1970s; at that time I wrote a paper on the subject that was published some years later (Chafe 1987). I have a particular reason for returning to it now: a developing interest in ways in which language expresses emotions. In this essay I try to make a case that laughter does indeed express an emotion. First, however, I say a few things about the sound itself, the phonetics of laughter. My examples are excerpts from the Corpus of Spoken American English that is being compiled at the University of California, Santa Barbara—specifically, the selections from that corpus that have been made available by the Linguistic Data Consortium at the University of Pennsylvania.

### **The Phonetics of Laughter**

Laughter is produced by a spasmodic expulsion of air from the lungs. Its predominant physical effect is to remove air from the lungs more forcefully than is done during relaxed breathing or ordinary speech. As these explosive pulses of air

travel upward through the larynx, they usually set the vocal folds to vibrating—which is to say that laughter usually is voiced, although voiceless laughter does occur. This forceful depletion of air is necessarily followed by a pulse of inhaling, the recovery phase, which often is audible as well.

In example (2a) there was first a single voiceless pulse with audible glottal friction, which I have indicated with the lowercase “h” at the beginning. This voiceless pulse was followed by five voiced pulses with a rising pitch at the end, indicated with the comma. In (2b) there was a single pulse from the other speaker, whose lips were closed, as shown with the superscript “m”. The pitch this time fell, as shown by the period. Finally, in (2c), there was an audible inhalation to recover the lost air, as shown with the capital “H.”

- (2) a Pamela: h @@@@@,  
 b Darryl: @<sup>m</sup>.  
 c Pamela: H

Sometimes during the final inhalation the vocal folds vibrate to produce ingressive voicing, as in (3c), where it is indicated with an exclamation point following the capital “H.” Ingressive voicing is perceptually distinguishable from egressive voicing and voiceless inhalation. In (3c) it was preceded by a 0.4-second pause. The square brackets in (3a) and (3b) indicate overlapping pulses.

- (3) a Jamie: @[@@],  
 b Pete: [@@@@]@.  
 c Jamie: (.4) H!

In (4) there is a more complex sequence, in which a single pulse in (4a) was followed in (4b) by six pulses, the third and fifth of which were weaker than the others (as shown with smaller type). There was an inhalation in (4c), followed in (4d) by six pulses with a change in vowel quality in the middle, and then a voiced inhalation in (4e). In (4f) there was a sniff and one more pulse, and in (4g) eleven pulses, followed by a voiced inhalation in (4h).

- (4) a @.  
 b (.2) @@@@@@,  
 c (.3) H  
 d (.3) @<sup>c</sup>@<sup>c</sup>@<sup>c</sup>@<sup>a</sup>@<sup>a</sup>@<sup>a</sup>,  
 e (.5) H!  
 f (.3) H<sup>n</sup> @,

g (.3) @ .. @@@@ @@@@ @@@@,  
 h H!

At the opposite extreme from the extensive laughing in (4), there may be nothing more than a single pulse, as in (5).

(5) @,

These laugh sounds are surrounded by speech, of course, and occasionally they are simultaneous with it, as in (6)—where the last part of (6a), all of (6b), and a portion in the middle of (6c) were pronounced with forceful expulsions of air superimposed on the speech sounds. I have shown this laughing that is simultaneous with speech in boldface and underlined.

(6) a [That's what] **she does**,  
 b **she gets real embarrassed**,  
 c and she just giggles **like** a goofball.

Once these spasmodic pulses of air reach the upper part of the vocal tract, they are modified in the mouth. The variety of oral articulations is more restricted than in speech, but several options exist. For example, there are vocalic laughs and consonantal laughs. With vocalic laughs the airstream passes through the mouth relatively freely, whereas with consonantal laughs it is shut off, usually by closing the lips, so that it passes only through the nose. There is an illustration of this bilabial laughter in (7), shown with a superscript “m” (*cf.* 2b).

(7) . . . (.3) @<sup>m</sup>@<sup>m</sup>@<sup>m</sup>,

With regard to vocalic articulation, there is a popular idea that laughs are pronounced as “ha ha ha,” “ho ho ho,” or “he he he.” What I have been finding in real life is that most laughs appear to have the tongue in the position of approximately a low schwa. Laughs are not as cleanly periodic as ordinary vowels, and it is difficult to identify formants that would aid in identifying their vowel quality. Sometimes, however, variations in vowel quality are clearly perceptible, as in (4d)—repeated as (8)—where the superscripts show roughly the vowel change.

(8) (.3) @<sup>e</sup>@<sup>e</sup>@<sup>e</sup>@<sup>a</sup>@<sup>a</sup>@<sup>a</sup>,

Although much more could be said about the phonetics of laughter, I mention just two additional considerations. Laughing typically is accompanied by the adjustment of facial muscles that we call smiling. It is unnatural to laugh without smiling at the same time. Smiling affects the nature of the resulting sound, and

generally it is possible to hear that people are smiling as they talk. In (9a) Pamela was smiling; in (9b), which began with an inhalation, she was not. The smiling faces at the beginning and end of (9a) are an obvious transcription device.

- (9) a Pamela: ☺Of whatever it was I was doing before I was,☺  
 b H before my number came up.

One might be tempted to suppose that smiling alone, without pulses of laughter, is the mildest form of laughter itself: one end of a laugh continuum. It is more likely, however, that the function of smiling is broader than that of laughing, a more general expression of happiness and good feeling—more akin to the emotion expressed by dogs when they wag their tails.

The phonetics of laughter involves the production, propagation, and perception of this special kind of sound, but those are not the only aspects that should ultimately be describable in physical terms. Surely there are accompanying brain states and processes. It is impossible to predict how long it will be before we can relate laughing to specific neural events. In the meantime, as in other cases, we will have to rely on our ability to observe and describe introspectively what we experience when we laugh and when we hear others laugh. As in other cases, an eventual understanding of physical events in the brain, helpful though it will be, still will not elucidate the quality of the experience itself.

### **Laughter as the Expression of an Emotion**

I have suggested that laughing expresses an emotion. This emotion is not usually included in a class with anger, fear, sadness, or joy, but I suggest that it does belong in such a list. We even fail to have a word for it that would be parallel to words such as “anger” or “fear.” We do have the word “humor,” but it applies to some of the stimuli that produce this emotion, not the emotion itself. In this essay, for reasons that will become clear, I refer to this emotion as “the feeling of nonseriousness.”

This nonserious feeling shares with the more generally recognized emotions at least five properties:

- It is not under voluntary control.
- It fades slowly.
- It is contagious.
- It comes in degrees.
- It is universal.

First, the feeling of nonseriousness is not under voluntary control in the sense that we usually do not put ourselves into it by an act of will, just as we do not voluntarily make ourselves sad or joyful. It usually is triggered by external events or,

sometimes, by events inside ourselves. It is true that actors may have the ability to call up emotions in themselves voluntarily or to let their emotions be triggered by events in a play, and thus to sound as if they are authentically experiencing them. But the feeling of nonseriousness is no different from other emotions in this regard.

Second, this feeling fades slowly. It affects our experience over relatively long intervals, as compared to the rapid turnover of ideas in focal consciousness, where there is a replacement every second or two. Each Monday my local newspaper carries next to its editorial page a column by Dave Barry. When I open the paper on Monday I read that column first, and it is quite effective in producing the feeling of nonseriousness in me. If I then turn to another columnist or letters to the editor or editorials, I find myself unable at first to take them seriously. This feeling is slow to dissipate, and at least for a few minutes any serious consideration of politics or any other serious topic is impossible. Again, the feeling of nonseriousness shares this property of slow fading with other emotions.

The third property is contagiousness, as is well known and easily observable. In (10) there is an example of shared hilarity, with three people laughing together.

- (10) a Pete: (.3) @<sup>m</sup> [1@<sup>m</sup>1],  
 b Jamie: [2[1@1]@@2] @@ h @ @ @ @ @,  
 c Harold: [2@ @ @ @2] @ @ @,  
 d Pete: @<sup>m</sup>@<sup>m</sup>@<sup>m</sup>@<sup>m</sup>,  
 e Jamie: (.45) h @ @ @,  
 f (.73) @,  
 g (1.25) H

Television sitcom producers believe that adding a laugh track to their product, or producing it in front of a live audience that already has been stimulated into the feeling of nonseriousness artificially, will help to create that state among millions of people in their broader audience.

The fourth property is the observation that emotions come in degrees. We experience them more or less. We can be more or less angry, more or less afraid, more or less happy—and similarly, we can experience the feeling of nonseriousness to a greater or lesser degree. Some of these degrees even have names. The word “chuckle” captures a mild degree of amusement that usually is limited to one person, “hilarity” a stronger emotion that is shared, as in (10).

The fifth property is universality. Emotions, including the feeling of nonseriousness, are experienced by humans everywhere. People in different cultures may differ in many ways, but everyone experiences emotions. Two obvious disclaimers are necessary. First, different cultures certainly can differ with regard to what trig-

gers emotions. Events that produce anger, or the feeling of nonseriousness, in one culture may not produce the same emotion in another. Some cultures may even encourage anger, or the nonserious feeling, more than others. It would be surprising, however, to find a culture in which people were never angry, or never experienced the feeling of nonseriousness. A second disclaimer is needed for individual differences. Just as some people are more prone to anger than others, so there are some who experience the feeling of nonseriousness more easily and more often. If there are some who never experience it at all, that condition borders on the pathological. Here too, however, this feeling is just like other emotions.

If laughing does express an emotion, then, how can that emotion be characterized? It is impossible to describe an emotion as one might describe a physical object. An emotion is an experience, and there is no way to put such an experience into words—even less into some formal representation. Even if we eventually are able to associate particular emotions with particular neural processes, that will not tell us what the experience itself is like.

Nevertheless, there is one very important and obvious thing we can say about the feeling of nonseriousness: It is pleasant. If anger, fear, and sadness are unpleasant, this feeling is the opposite. In that respect it belongs in a class with aesthetic experiences, certain drug-induced experiences, and sex. It is interesting that these are experiences that people go out of their way to have, and even pay money for. People pay to visit art museums and concerts, to buy drugs, and to have sex. They also pay for books and movies and other products that make them laugh. Creating the feeling of nonseriousness in large numbers of people is an extremely profitable business. It is one of the best sources of pleasure available to people, among other reasons because it lacks the undesirable side effects that may accompany drugs and sex.

### **The Function of Nonseriousness**

Now, however, we come to the big questions: What is it, exactly, that produces this feeling in people? And why should whatever it is create an emotion that brings together a peculiar conjunction of properties: a spasmodic expulsion of air from the lungs along with enjoyment? Depletion of air and euphoria: Why should those two be linked?

The suggestion I set forth in Chafe (1987) was that this feeling is an emotion that keeps us from taking seriously—and from taking action with respect to—experiences that it would be inappropriate to take seriously, or to act on. It does so by physically disabling us through the expulsion of air and by psychologically disabling us through a feeling of pleasure that distracts us from serious thought. It is useful to think of this phenomenon in terms of various worlds that people can know about and interact with. All humans have an idea of a normal world: a world they believe to be real, a world that conforms to their expectations of how things really are. Different people have different conceptions of this normal world, but

everyone has some conception of it. Suppose we use the word “serious” to characterize experiences that conform to this world of normal expectations. People take newly encountered experiences seriously if these experiences contribute to their knowledge of this normal world.

Evidently there are two kinds of experience that are not taken seriously in this sense. One kind comes under the heading of play. Athletic contests and other kinds of games—although there may be a sense in which people take them seriously indeed—are nonconsequential in the sense that they fail to affect people’s lives in a serious way. There is a difference between a baseball game and a wartime battle. In both, two sides are contesting with each other, but it is only in the battle that people lose their lives and property is devastated. If there were a game in which the members of the losing team were lined up and shot, we would certainly want to say that things turned serious at that point: that people were no longer playing. That is the perspective that allows us to say that play is nonconsequential.

Athletic contests, however, are still full of action. People do things. What is further removed from the normal, serious, consequential world is the world associated with laughter, where the things people experience or imagine are inappropriate for action. If both play and whatever it is that triggers the feeling of nonseriousness are nonconsequential, the latter goes a step further in being what might be called nonactionable as well. What triggers the feeling of nonseriousness is either imagining or actually encountering a world that is judged to be inappropriate to act on. At the same time, however, it is a world that has some kind of pseudo-plausibility. We recognize a pseudo-logic by which the existence of such a world could somehow be entertained. The feeling of nonseriousness is a safety valve that keeps us from acting on that pseudo-plausible but nonactionable world by depleting air from our lungs and at the same time distracting us with a feeling of euphoria.

We can look first at an example in which a pseudo-plausible world was imagined, not real. The context of (11) was as follows: People had been talking about dancing. Within that general topic they introduced and developed more specific topics that involved dancing in some way. In (11) Miles introduced one such topic by asking a question of Harold, and Harold’s wife Jamie and a friend named Pete then commented on Harold’s response.

- (11) a Miles: (5.0) What are you planning on doing with dancing Harold.  
 b (9) You were taking some classes last fall?  
 c Harold: I’ll take a few more,  
 d Jamie: (.3) [You will?]  
 e Harold: [As a] it turns out as a spouse I get in free.  
 f Pete: Oh really.

- g Harold: So,  
 h Pete: [That's not] bad.  
 i Jamie: [To group classes,]  
 j Pete: (.5) Hm.  
 k Harold: So,  
 l I should [do that].  
 m Miles: [Oh really?]  
 n Jamie: Mhm,

The topic of Harold's free dance lessons was now open for further development. Everything that had been said up to this point was serious, but Miles changed that by saying what's in (12).

- (12) Miles: (1.2) That's why you married her.

Miles thereby shifted the conversation into an imaginary world in which Harold had married Jamie so he could have free dance lessons.

It is of some interest that we use the word "funny" in two ways: for something that produces the feeling of nonseriousness but also for something that fails to conform to our normal world, something that would be inappropriate to take seriously or act on. Thus, we can say that (12) introduced a "funny" world in the latter sense: a world in which Harold married Jamie to get free dance lessons—conforming to the pseudo-logic that people marry people for some benefit, and free dance lessons are a benefit. It was easy to recognize that this was not a world to take seriously, and Miles made that clear to everyone by laughing the laughs in (13): first a three-pulse chuckle, then a basic laugh with six pulses, then another three-pulse chuckle.

- (13) a Miles: (1.2) That's why you married her.  
 b .. @@@.  
 c (.3) @@@@ @@@,  
 d .. @@@.

The feeling of nonseriousness then spread contagiously to others in the conversation. The first to join in was Jamie. In (14a) she smiled as she joined Miles in his funny world, suggesting that free dance lessons were not really such a great benefit. In (14b) she added a single pulse of laughter, which overlapped four more pulses by Miles in (14c). Miles recovered his breath with a voiced inhalation in (14d), and there was another single and high-pitched pulse by Jamie in (14e).

- (14) a Jamie: ☺Some benefit huh?☺  
 b            [@],  
 c Miles: [@] @@@.  
 d            .. H!  
 e Jamie: (0.2) @,

Harold then kept the funny world alive by suggesting in (15) that, although free dance lessons may not have been a wonderful benefit, they were at least something.

- (15) Harold: It's better than nothing,

His comment elicited more laughter from Miles and Pete in (16).

- (16) a Miles: (.6) @<sup>m</sup>,  
 b            @. @[@@@=],  
 c Pete: [@<sup>m</sup>@<sup>m</sup>@<sup>m</sup>@<sup>m</sup>@<sup>m</sup>@<sup>m</sup>]@<sup>m</sup>,

The feeling of nonseriousness continued, kept alive by further fictional evaluations of Jamie's and Harold's marriage, until this episode ran its course. The same conversation exhibited other nonserious episodes, also initiated by Miles. To that extent, and especially because of Miles's presence, it could be characterized as a light-hearted conversation. In other conversations, depending on the participants, episodes such as this may be more or less frequent, or they may be lacking altogether.

The most interesting finding, however, may be that most of the laughing in conversations is not like this example, not the result of someone trying deliberately to produce the feeling of nonseriousness. Usually the laughing just happens in the ordinary course of what is being talked about. Most of the laughing people do in their daily lives is not in response to deliberate humor or jokes at all. This observation stems especially from works by Robert Provine (e.g., Provine 2000), and what I have found confirms what he wrote. I have found also that the stimulus for nonseriousness need not be an imagined world at all—that it is probably more often a real world that for some reason the speaker wants to avoid taking seriously or does not want others to take seriously.

### Laughing at Unpleasantness

During one conversation a woman named Lynne had been talking about how she took lessons in shoeing horses. She said that the students did not start with live horses, which they might injure through inexperience. At first they used legs that had been cut from dead horses. Then she said what is transcribed in (17).

- (17) a Lynne: I mean you have this h . . . (2.1) piece of horse,  
 b @ @H I mean this leg that's-  
 c oh it's just gross.  
 d H

This was not an imagined world; Lynne really did work with these pieces of horse. But as she told about it she laughed, and by laughing she was able to mitigate its seriousness. Without the laughter there would have been nothing but a disgusting experience. With laughter, a bit of the edge was removed from that disgustingness.

Prior to the excerpt in (18), Roy and Marilyn had been talking about a book they had read in which the author described how humans had become the dominant force on earth, replacing the world of nature. They found that idea depressing. In (18d) Marilyn said explicitly, "Then it gets really depressing." After that both Marilyn and her friend Pete engaged in a great deal of laughter. Why should all this laughter accompany talk about a depressing idea? Again, placing this topic in a nonserious world was a way of mitigating its unpleasantness.

- (18) a Roy: And then he goes on,  
 b for the rest of book,  
 c to [absolutely],  
 d Marilyn: [Then it gets really] depressing @.  
 e Roy: [2heartless2][3ly3],  
 f Pete: [2@Oh2] [3@good3].  
 g Marilyn: [3@3] [4@ @ @ @4] [5@=  
 h Pete: [4@ @oh @gee @4]

Associating laughter with unpleasant experiences may seem paradoxical, but it makes sense if one understands the feeling of nonseriousness as an emotion whose function is specifically to prevent experiences from being taken seriously. In a variety of examples I have found it associated with experiences that might variously be characterized as awkward, confusing, disastrous, disgusting, embarrassing, illegal, insulting, stupid, threatening, or unethical, and doubtless other adjectives could be added to this list. To mention an extreme case, during the Vietnam War I was told that when some Vietnamese women saw pictures of atrocities inflicted on Vietnamese children, they broke into laughter. To take those pictures seriously was more than they could bear, and their laughter must have given them a way of dealing with their extreme distress.

These examples raise the question of whether the feeling of nonseriousness can be experienced simultaneously with other emotions such as disgust, depression, or horror, or whether it serves to replace such unpleasant emotions with a feeling that is enjoyable. Is it, in short, a mask to hide unpleasantness (*cf.* Ekman 1973), or is it a genuine, though perhaps only temporary, replacement of an unpleasant emotion? I am inclined to favor the latter interpretation, but the question is open for further study.

### Laughing and Ridicule

In the Western tradition of laughter and humor studies there is an old idea associated with what has been called the “superiority theory.” Keith-Spiegel (1972: 6) summarized this view in the following way: “The roots of laughter in triumph over other people (or circumstances) supplies the basis for superiority theories. Elation is engendered when we compare ourselves favorably to others as being less stupid, less ugly, less unfortunate, or less weak. According to the principle of superiority, mockery, ridicule, and laughter at the foolish actions of others are central to the humor experience.” The truth is that ridicule is only one of many triggers for laughter, but it is interesting that people in the ancient Mediterranean world regarded it as so important. Perhaps that shows more about them than about laughter itself.

The fact is, however, that we do sometimes find laughing an accompaniment to ridicule. We even have expressions such as “laughing at” or “making fun” of someone. Prior to (19), Pamela had been talking about how, when she was a girl, she had trouble understanding a definition of the word “paradox.” In (19e) she said, “I sort of bit my teeth into that one.” Whatever she may have meant, her friend Darryl found it a “funny” thing for her to say, and he laughed. Pamela could have proceeded to explain what she meant, but instead she joined in the laughter herself—perhaps because it was contagious, perhaps because she wished to follow the lead of her partner.

- (19) a Pamela: (.6) Well,  
       b           that was age twelve.  
       c           (.3) So that  
       d           (.2) that was very close to Devon’s age when,  
       e           (.9) H I sort of (.2) bit my teeth into that one.  
       f Darryl: (.5) Bit your teeth hunh?  
       g Pamela: H And then,  
       h           [1yeah.]

- i As I went1]
- j Darryl: [1 @ @ @ @ 1]@,
- k Pamela: (.3) @ @ @ [2 @ @ @ 2],
- l Darryl: [2 @ @ @ 2]@ @,
- m Pamela: H (.2) I=
- n Darryl: H @ h @,
- o Pamela: [took] a bite?
- p Darryl: [ @ @ ]
- q **Is** is that **like** (.2) **cutting** it [in the] nip?
- r Pamela: [ @ @ ],
- s Darryl: @ @ @ @ @ @ [ @ @ ],
- t Pamela: [H]
- u (1.6) H I= (.2) I get a [little **ahead of myself**.]
- v Darryl: [ @ @ @ @ @ H ],
- w **Yeah I guess you do**,
- x @ @ @ @ @,
- y H

### Laughing as a Lubricant

The last use of laughter to be illustrated here involves what I think of as lubricating the interaction between separate minds. The act of influencing another person not through overt persuasion but simply by providing information the other person did not previously have—by inserting one’s own knowledge into another’s mind—can be a mild imposition. In a small way, one is trying to make the other person’s mind conform to one’s own. People sometimes laugh for no other purpose than to remove the seriousness of this imposition.

The example in (20) illustrates, in part, an attempt to steer the flow of a conversation. At the same time it shows how the mildly impositional nature of doing so was mitigated with laughter. Jamie had been telling how she became annoyed at a neighbor who had a large number of ill-behaved children. She said that the way she reacted to those children made her feel like an old lady—a role that made her uncomfortable. In (20a) she then tried to steer the conversation away from

that uncomfortable topic by saying explicitly, “New subject.” But then she laughed, and by laughing she reduced the slight presumptuousness that might otherwise have been associated with steering a conversation.

- (20) a Jamie: New subject,  
 b           @@,  
 c Pete: Hm.  
 d Jamie: @@,  
 e           H!

### Conclusion

My purpose has been to suggest why a linguist interested in natural discourse might find it rewarding to look carefully and systematically at laughing. My main points have been these. Humans often experience an emotion that might be called, in lieu of a better term, a feeling of nonseriousness. Laughing is an overt expression of this emotion, and its most conspicuous manifestations include forcefully expelling air from the lungs and simultaneously feeling pleasure. This seemingly odd combination makes sense if we hypothesize that the feeling of nonseriousness functions to prevent us from taking seriously experiences that have some kind of pseudo-plausibility but that it would be inappropriate to take seriously. In Chafe (1987) I called laughter a “disabling mechanism.” Expelling air keeps us from acting in a physical way, while euphoria distracts us intellectually. Laughing in conversations sometimes is a response to a deliberate attempt to put people in this state, but more often it is a response to something that just happens to arise in the course of the conversation and that is, for one reason or another, judged inappropriate for seriousness. Often this judgment is associated with a desire to mitigate an experience that would be undesirable or unpleasant if it were taken seriously. Studying in detail the many and varied occurrences of laughing while talking can add significantly to our understanding of human thought and interaction.

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