

How Hard Could It Be to Make People Laugh?

Vedh: Hey everyone. We are your hosts. I'm Vedh.

Charlie: And I'm Charlie.

Vedh: And welcome to How Hard Could It Be, a podcast where we discuss technology, inventions, and behaviours that we encounter in our everyday lives, but don't always stop to think about how they work.

Charlie: Everyone laughs. But have you ever tried to make someone laugh *on purpose*? Whether you have considered becoming a stand-up comedian or thinking of becoming a scientist that studies human behaviour, laughter is more complicated than first meets the eye. I was at a comedy club the other night, the opener was really struggling to get people warmed up, and it's obviously more difficult than we think. So we spoke to a scientist about this.

Vedh: Yeah! So our guest today is [Professor Sophie Scott](#). She is the Director of the Institute of Cognitive Neuroscience at UCL and the Principal Investigator of her own lab where she studies neurobiology of communication.¹

Charlie: We all intuitively know a lot about laughter, so before we begin I have a question to the audience. In what situations do you laugh and why is laughter the response we produce? Yes, we laugh when we are happy, when we are with friends or when we hear something funny, but we also laugh when we are nervous, embarrassed, or stressed.

Laughter is so incredibly common, but as Professor Sophie Scott tells us, doing it under experimental conditions can be quite challenging.

Professor: So we learned that what you have to do to record laughter is you cannot just put people in the Anacoke Chamber and say, "Laugh now, come on, laugh." We're trying to make you laugh because it doesn't work. People won't. They feel anxious and observed and it kills laughter stone dead.

Vedh: So studying it is tricky, and we're getting a glimpse into what not to do to make people laugh.

Charlie: When people feel observed, they're much more less likely to laugh because, I don't know, the social judgement?

¹ Discovery. (2025). Ucl.ac.uk. <https://profiles.ucl.ac.uk/7276-sophie-scott>

² Panksepp, J. (2005). PSYCHOLOGY: Beyond a Joke: From Animal Laughter to Human Joy? *Science*, 308(5718), 62–63. <https://doi.org/10.1126/science.1112066>

³ Yim J. (2016). Therapeutic Benefits of Laughter in Mental Health: A Theoretical Review. *The Tohoku journal of experimental medicine*, 239(3), 243–249. <https://doi.org/10.1620/tjem.239.243>

Professor: Even a slight sense of anxiety can knock laugh quite quickly on the head. And it's interesting, if you look at comedy venues, they are, you get the audience in the dark, if possible with a low ceiling, you've got the comedian really well lit, everybody else feels like they can't really be seen. So there's a lot you can do to kind of make the audience laugh, which is make them feel safe, put them in the dark, have lots of other people in there, and then get them laughing. That's an MC's job, is just to get the audience laughing before the first comedian comes out because laughter primes laughter.

Vedh: But as it turns out, laughter isn't only studied in humans. To my great surprise, other animals laugh as well. Obviously animals such as rats, elephants, and even dogs don't make "ha ha" sounds, but when they play with one another, they make a very unique sound that scientists compare to laughter.

Professor: The things that are in common about what elicits laughter across humans and other animals are things like tickling, particularly in infancy and play. And in fact play is such an important behaviour to all mammals play and [Jaak Panksepp](#) who did a huge amount of work with rats and laughter argued that across the animal kingdom where you find laughter it functions as an invitation to play.² But play is really physical for other animals it involves things like play fighting or jumping on each other or jumping around wrestling and laughter seems to function as a sign that this is not aggression I am not trying to kill you.

Charlie: However, humans are quite unique in their use of humor. Obviously, we are the only species that has laughter in this way. And that is because we do not need physical contact, such as tickling, to make one another laugh. Human babies laugh at peek-a-boo or at a paper being torn. But other animals require playfighting, and laughter communicates that.

Professor: Only humans can laugh contagiously. There are lots of other animals that laugh but they don't catch laughter off each other whereas I can say that contagious yawning is really common across nature so there is something interesting about humans and contagion and laughter.

And of course humor, only humans use humor. And, although theres lots of disagreements about what the scientific reasons for humor are, what is absolutely clear is its directed at causing laughter. So I think theres

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something about human ability to understand intentions, which is very powerful. We can understand intentions by using things like language, or looking at eye gaze. And that helps us understand laughter, I can get your playful intentions, I can get your humorous intentions without you having to come over and tickle me to get it going.

Vedh: Human babies are only capable of spontaneous laughter but there is a second type of laughter, and that is voluntary. but as we grow up, we are able to communicate using laughter in a much more nuanced way

Professor: When I talk about volitional laughter, what I mean really is communicative laughter, the sort of laughter that is happening with other people, when you are in interaction with other people, you are having a conversation. If you look at how people time the laughter in conversations, they laugh together at the ends of sentences and that is just too precisely timed for it to be spontaneous.

Charlie: Whereas the uncontrollable spontaneous laughter sounds very different. In fact, we are all able to distinguish between the two naturally. Professor Sophie Scott also agrees it can be extremely complicated, as we all instinctually know.

Professor: I think there is a number of different reasons why people will laugh. I have a colleague of mine who has done a study where they had friends in and the friends had to give each other electric shocks. What they do is they laugh a lot and that is almost certainly dealing with the fact that this is quite a stressful thing to do and they are laughing together, it is kind of ridiculous, I am sorry I had to hurt you, you are going to have to hurt me next, ha ha, we are kind of keeping it rather than keep you absolutely bastard, you just gave me a shock, what are you doing? So I think it is probably the fact that they are friends and that is a sort of stress thing and it is a very common use of laughter. People will use laughter in situations where they feel a bit awkward or a bit stressed and it can work very well if as I say everybody laughs, if one person laughs and nobody else laughs, often that is what we mean by awkward laughter, there is one person going ha ha ha, sorry about that, no one else is going, you are absolutely idiot.

Charlie: So its really interesting that the NHS is prescribing comedy night tickets to those suffering with mental health difficulties now. Because of laughter's

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physiological benefits, its being utilised like treatment - laughter is the best medicine.

If there was some way of collecting data, like mass data on how often people laugh, do you reckon that could show us things about human wellbeing?

Professor: Yes, completely, completely. You could do that because when you laugh, there's a lot of movement in your rib cage, which is very, very identifiable as laughter. You could actually wear some sort of device that sits at the top of your rib cage, just measuring your rib cage movements. You would pick up when somebody's talking and that would look different from speaking. And then actually being able to track that and track who they're talking to, where are they, when's it happening.

That would be an amazing thing. For example, for people being treated for depression, because you're only seeing them when they come in, but being able to find out how much they're laughing during the day and how that changes, if it changes, would be really helpful.

And a colleague, I remember somebody telling me that her son struggles with episodes of psychosis, and the first sign that there's something wrong is he stops laughing.

Vedh: People respond really well to laughter, because hearing laughter can make people less anxious. So if people laugh together, it has a really powerful effect.

Professor: If people are placed in a stressful situation, if they laugh together or smile together they will get less stressed. If one person laughs it doesn't work, you have to both laugh.

And the shared laughter in a job interview has been shown to be much more likely to be associated with the more shared laughter there is, the more likely people will get offered a job at the end of it.

So there is work from people looking at speed dating scenarios where the more shared laughter there is between a couple in a speed dating environment, the more likely they are to want to see each other again.

Charlie: Additionally, [laughing increases pain tolerance](#). It increases the body's natural pain killer endorphins. Many other neurophysiological changes can happen to - For example, adrenaline levels will go down very quickly

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when you laugh, which reduces heart rate. And on a longer timescale, the stress hormone cortisol decreases, which then makes you more relaxed.³

- Vedh: So we all need to laugh more! As put wonderfully by Sophie Scott:
- Charlie: I like the concept that laughter is needed because why wouldn't it be? We use it so much that it's a useful thing. It's a useful tool and we just don't think about it like that.
- Professor: It's almost like a superpower that we don't realize we have.
- Charlie: And the best way to get people to laugh is by laughing ourselves. Humans have the superpower of contagious laughter and it makes us feel better, with less pain. As long as you're not a comedian struggling through a comedy set, laughter is our natural stress-reliever!
- Vedh: So how hard is it to make people laugh? Well for the reasons we've been through... it depends. If people feel safe and connected, laughter happens really easily. If not... well even scientists can't force it.
- Charlie: Thank you very much for listening to this, this has been Charlie.
- Vedh: And Vedh.
- Charlie: And thank you very much as well to Sophie Scott for joining us today, it has been a pleasure to have her. See you next week for how hard could it be to tell a lie?

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