

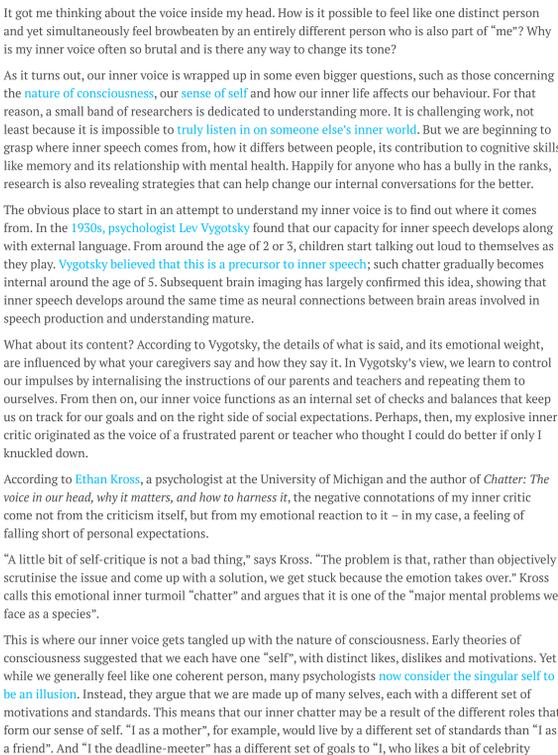
How to understand your inner voice and control your inner critic

Most of us have a voice inside our heads and it can be caring, supportive, negative or critical. Learning to control this internal monologue could help you cope with daily stress

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WHAT was the last thing you said to yourself in your head? A warm word of encouragement or a scathing put-down?

For me, it was neither. It was more a loud "aargh!" as one part of my brain tried to persuade another to stop procrastinating. As usual, this internal battle cry was both a blessing and a curse. It was a helpful reminder that deadline day wasn't the time for doomscrolling, but it also made me feel bad. My inner voice had spoken and it was far from impressed with my work ethic.

It got me thinking about the voice inside my head. How is it possible to feel like one distinct person and yet simultaneously feel browbeaten by an entirely different person who is also part of "me"? Why is my inner voice often so brutal and is there any way to change its tone?

As it turns out, our inner voice is wrapped up in some even bigger questions, such as those concerning the [nature of consciousness](#), our [sense of self](#) and how our inner life affects our behaviour. For that reason, a small band of researchers is dedicated to understanding more. It is challenging work, not least because it is impossible to [truly listen in on someone else's inner world](#). But we are beginning to grasp where inner speech comes from, how it differs between people, its contribution to cognitive skills like memory and its relationship with mental health. Happily for anyone who has a bully in the ranks, research is also revealing strategies that can help change our internal conversations for the better.

The obvious place to start in an attempt to understand my inner voice is to find out where it comes from. In the [1930s](#), [psychologist Lev Vygotsky](#) found that our capacity for inner speech develops along with external language. From around the age of 2 or 3, children start talking out loud to themselves as they play. [Vygotsky believed that this is a precursor to inner speech](#); such chatter gradually becomes internal around the age of 5. Subsequent brain imaging has largely confirmed this idea, showing that inner speech develops around the same time as neural connections between brain areas involved in speech production and understanding mature.

What about its content? According to Vygotsky, the details of what is said, and its emotional weight, are influenced by what your caregivers say and how they say it. In Vygotsky's view, we learn to control our impulses by internalising the instructions of our parents and teachers and repeating them to ourselves. From then on, our inner voice functions as an internal set of checks and balances that keep us on track for our goals and on the right side of social expectations. Perhaps, then, my explosive inner critic originated as the voice of a frustrated parent or teacher who thought I could do better if only I knuckled down.

According to [Ethan Kross](#), a psychologist at the University of Michigan and the author of *Chatter: The voice in our head, why it matters, and how to harness it*, the negative connotations of my inner critic come not from the criticism itself, but from my emotional reaction to it – in my case, a feeling of falling short of personal expectations.

"A little bit of self-critique is not a bad thing," says Kross. "The problem is that, rather than objectively scrutinise the issue and come up with a solution, we get stuck because the emotion takes over." Kross calls this emotional inner turmoil "chatter" and argues that it is one of the "major mental problems we face as a species".

This is where our inner voice gets tangled up with the nature of consciousness. Early theories of consciousness suggested that we each have one "self", with distinct likes, dislikes and motivations. Yet while we generally feel like one coherent person, many psychologists [now consider the singular self to be an illusion](#). Instead, they argue that we are made up of many selves, each with a different set of motivations and standards. This means that our inner chatter may be a result of the different roles that form our sense of self. "I as a mother", for example, would live by a different set of standards than "I as a friend". And "I the deadline-meeter" has a different set of goals to "I, who likes a bit of celebrity gossip".

There is some evidence that our childhood experiences are also at the root of this internal conflict. In 2020, [Małgorzata Puchalska-Wasył](#) at the John Paul II Catholic University of Lublin in Poland showed that people whose parents strongly disagreed on how to raise them [experienced more intense and distressing](#) internal dialogue as adults, as the two opposing viewpoints continued to battle it out over what is right.

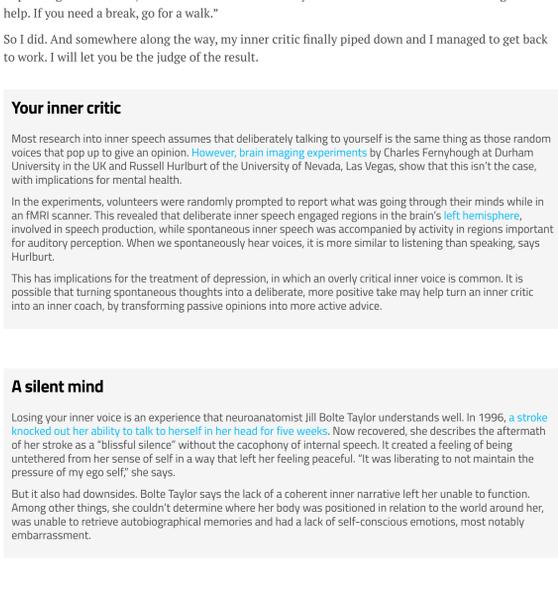
Identifying your inner voice

In getting to know our inner voice, it may also be helpful to identify who is actually doing the talking. Puchalska-Wasył attempted to do this by asking hundreds of people to rate their most common inner speakers based on a variety of emotional outcomes.

[Her analysis](#) boiled down their inner speakers to four basic characters: the Faithful Friend, the Proud Rival, the Ambivalent Parent and the Helpless Child. The Faithful Friend is an advocate: caring and positive and always on hand to provide encouragement. In Puchalska-Wasył's sample, this was the most common inner voice experienced. Second was the Proud Rival, a high-fiving positivity coach who challenges a person to up their game. The Ambivalent Parent offers love, support and, at times, a hefty dose of criticism. The Helpless Child is the most negative, arriving with a feeling of powerlessness and a need for support.

Determining which voice pops up most often can be difficult. One option is to pay attention to your inner dialogue and notice which version of your inner voice is talking and how it makes you feel. Given that internal dialogues are a useful tool in psychotherapy, identifying which type of voice predominantly guides you may help you to reframe the conversation for the better, writes Puchalska-Wasył in a [paper on the subject](#).

My own inner voice has definite Ambivalent Parent vibes, as though it has tried the Faithful Friend approach and finally run out of patience. My internal response has undertones of the Helpless Child. Perhaps a deliberate shift towards a Faithful Friend could get the job done with less emotional fallout?



At 2 or 3 years old, children start to talk to themselves while they are playing
Laura Dwight/Alamy

Unfortunately, I may be fooling myself. Many researchers think that self-reports of our inner voice are an unreliable guide. "We're not very good at knowing what's going on in our heads," says [Charles Fernyhough](#) at Durham University in the UK, author of *The Voices Within*. "People answer questionnaires according to what kind of mind they think they have, rather than what kind of mind they actually have."

To address this, [Russell Hurlburt](#) at the University of Nevada, Las Vegas, has developed a method called [descriptive experience sampling \(DES\)](#). Volunteers wear an earpiece connected to a beeper that goes off at intervals. At the beep, volunteers record exactly what they are experiencing internally. Later, Hurlburt interviews each volunteer, drilling into what exactly was happening and whether words, images or sensations were present. This, he believes, opens a true window into our "pristine inner experience". You can do something similar with an app that Hurlburt helped create called [I-Prompt-U](#).

Hurlburt pioneered this approach more than 40 years ago and has collected samples from thousands of volunteers. He concludes that inner speech is just one common form of thought, along with inner seeing, feeling, sensory awareness and unsymbolised thinking – in which a concept isn't necessarily attached to words or other symbols. Each of these turns up in around 25 per cent of beeps, says Hurlburt, but not everyone experiences them all. And some people rarely, if ever, use verbal inner speech.

When Hurlburt sent me a beeper to try DES for myself, I was surprised to find that I was in the latter group. Over four days and 22 beeps, only one involved inner speaking. At the time of that beep, I was explaining to my son that there was nothing "unfair" about losing a random game, while simultaneously thinking "is this making any sense" in my head.

In other beeps, though, I was certain there were no words attached to what I would have previously referred to as my inner voice. For instance, one beep happened on the train, while I was squinting from the sun. I had just noticed that a woman was staring at me, and I was wondering if she was thinking that my face is really wrinkly. There were no words, but the thought was as clear as day.

Hurlburt says he sees this all the time. "The thinking process that takes place without words can be as specific as thought that takes place with words." Fernyhough makes the same point. Even Puchalska-Wasył's four characters may exist without speech, he says.

The nebulous concept of an inner voice gets stranger still. In 2020, twitter user [@KylePlantEmoji](#) [posted a tweet](#) saying: "Fun fact: some people have an internal narrative and some don't". The tweet went viral, triggering discussions in which some people expressed surprise at the entire concept of an inner voice.

In the years since, a number of people have come forward claiming to have no inner speech whatsoever. Last year, [Rish Hinwar and Anthony Lambert](#), both at the University of Auckland in New Zealand, dubbed this "[anauralia](#)" and published a strong correlation between having no inner speech and [the experience of having no mind's eye](#), known as aphantasia. So far, little else is known, but Lambert says that preliminary analysis of data from 15,000 people as part of the [New Zealand Attitudes and Values Study](#) puts the proportion of people with anauralia at 0.8 per cent.

The effect of not hearing any inner voice on your brain and behaviour is unknown. Lambert intends to study this question further. However, we know that when your inner voice is wiped out suddenly through disease (such as a stroke in the language-producing "Broca's area" of the brain), the effects can be dramatic, ranging from memory problems to an inability to feel emotions and a loss of self-identity (see "[A silent mind](#)").

Controlling your inner critic

In these cases, people sometimes report that linguistic thinking transforms into thinking in pictures. In 2021, [Peter Langland-Hassan](#) at the University of Cincinnati in Ohio showed that people who had lost their inner voice after a stroke [were still able to link abstract concepts](#). They were slower than people who hadn't had a stroke, but were able to do it, says Langland-Hassan. "Producing language in the head is not essential to understanding abstract relationships," he says.

These results, together with the fact that people with anauralia seemingly function well enough not to have necessarily noticed an absence of an inner voice, suggest that inner speech is a tool we can use for certain cognitive processes, but that it isn't necessarily the only way to get a job done.

Understanding this relationship between inner voice and cognitive skills and behaviours is critical. Not only could it aid the treatment of mental health conditions like [depression](#) (see "[Your inner critic](#)"), but it can also help us react better to daily stress.

For instance, Kross tells me there are some simple ways of escaping my negative inner voice. One is to seek some perspective on how much your chatter actually matters. Mentally zooming out could be as simple as going for a walk in nature, or looking up at the stars. "When you're in the presence of something vast and indescribable, it's hard to maintain the view that you – and the voice in your head – are the centre of the world," says Kross.

If that doesn't work, have a word with yourself in the third person. In a series of studies, Kross and his colleagues selected volunteers by asking them to give a presentation at short notice. Half were told to prepare by silently talking to themselves using either their name or non-first-person pronouns, such as he, she or you. The other half were directed to use the first-person pronouns "I", "my" or "me". The [results showed that using non-first-person](#) pronouns not only provided psychological distance from the stress, but also improved their performance. Afterwards, these people were more likely to be proud of their presentation and spent less time picking it apart.

Now that I am well acquainted with my inner critic, it seemed worth a try. The next time I felt an impending inner scream, I made a decision to talk to myself like a friend: "Caroline. Scrolling won't help. If you need a break, go for a walk."

So I did. And somewhere along the way, my inner critic finally piped down and I managed to get back to work. I will let you be the judge of the result.

Your inner critic

Most research into inner speech assumes that deliberately talking to yourself is the same thing as those random voices that pop up to give an opinion. [However, brain imaging experiments](#) by Charles Fernyhough at Durham University in the UK and Russell Hurlburt of the University of Nevada, Las Vegas, show that this isn't the case, with implications for mental health.

In the experiments, volunteers were randomly prompted to report what was going through their minds while in an fMRI scanner. This revealed that deliberate inner speech engaged regions in the brain's [left hemisphere](#), involved in speech production, while spontaneous inner speech was accompanied by activity in regions important for auditory perception. When we spontaneously hear voices, it is more similar to listening than speaking, says Hurlburt.

This has implications for thoughts of depression, in which an overly critical inner voice is common. It is possible that turning spontaneous thoughts into a deliberate, more positive take may help turn an inner critic into an inner coach, by transforming passive opinions into more active advice.

A silent mind

Losing your inner voice is an experience that neuroanatomist Jill Bolte Taylor understands well. In 1996, a [stroke knocked out her ability to talk to herself in her head for five weeks](#). Now recovered, she describes the aftermath of her stroke as a "blissful silence" without the cacophony of internal speech. It created a feeling of being un tethered from her sense of self in a way that left her feeling peaceful. "It was liberating to not maintain the pressure of my ego self," she says.

But it also had downsides. Bolte Taylor says the lack of a coherent inner narrative left her unable to function. Among other things, she couldn't determine where her body was positioned in relation to the world around her, was unable to retrieve autobiographical memories and had a lack of self-conscious emotions, most notably embarrassment.

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