

Causes of speechlessness



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Speechless

The language loop is located between the prefrontal cortex and the superior posterior temporal lobe of the left hemisphere of the brain, otherwise known as Broca and Wernicke's areas. These parts of the brain were named after the scientists who discovered the role of these regions in producing and processing language, respectively. Broca and Wernicke made their discoveries by dissecting cadavers of those who had speech impediments and noting the abnormalities within their respective zones. With the advent of scanning technology, however, we have been able to pinpoint more closely the behavior of the brain as it processes and produces speech. Turns out, far more areas of the brain are involved in verbal communication than we thought, including the motor cortex. Neurologists and linguists alike are stumped by how and why so many areas of the brain are stimulated by speech, but they agree that this calls for an interdisciplinary approach.

Human speech production is a complicated operation and a highly developed skill. According to Charles Berger, "typically, people generate speech at the rate of 120 to 180 words per minute, and they make very few lexical errors, even though they know tens of thousands of words." There are many operations that occur simultaneously in our minds which enable the formation of a sentence before the words even escape our mouths. First the concept must be formulated, assigned to the corresponding vocabulary, and encoded grammatically, then recast into phonetics before turned into speech.

Thanks to Broca and Wernicke's discoveries, we know where to look in the brain for disorders and impediments regarding speech and language processing, but even those without complications in the language loop can find themselves at a loss for words sometimes. For some, they could be fully aware of what they want to say at the conceptual level, but incapable of assigning the appropriate vocabulary to express themselves. For others, the problem lies within their inability to represent their intentions through concrete concepts. At such moments, no words seem to do the situation justice. Basically, sometimes we don't know what we want to say and sometimes we just can't find the right words to say it.

Speechlessness, when not a physical impediment, is rooted in surprise or intense emotion. In fact, many dictionary definitions of the term emphasize that this temporary state of voicelessness generally “arises from shock and other strong emotional states.”^[1] Consider all the people today who have received a phone call from the hospital at two in the morning, a dire diagnosis from a doctor, or news that their sister has died; consider the depth of the silence that surrounds those first moments of realization that life has changed in the span of one breath. Or consider also those who are surprised by a beloved soldier who comes home early and safe, a long awaited “congratulations! we're happy to announce that you...” message, or unwrapping the tonka truck you always wanted when you were little (he remembered). Humbled and mute is how we often meet the joy that transforms us.

Language, a construct that mankind has created and continues to hone, is so wholly imperfect. We have yet to master the ability to speak in the face of

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intense emotion to accurately convey those feelings. A person can be extremely happy, delighted, and overjoyed, but, depending on the context in which that individual fits any one of those descriptions, the feelings become further nuanced. For instance, you couldn't understand the guilt I felt after I misunderstood a situation and proceeded to make unfair and underhanded attacks in an argument with my best friend. The silence of my utter shame was palpable. Sometimes, we want a time machine, certain that if we went back we would have known what to say or how to respond. Or if Broca and Wernicke could have gotten inside and fixed the abnormalities of misperception, the right words would have flowed.

In speechlessness, we find meaning. Especially in western culture, we are prone to view our body as a machine, performing its duties like clockwork, with little consideration for the abstruse nature of our being. When there is a glitch in this system, when we find we are not equipped to respond, we have come face to face with something bigger than ourselves, something larger than life. Moments of aphonia come with a pause, a hiatus, a space of stillness in the barrage of thoughts and words that define our days and our lives. In this space there is a clearing; time itself seems suspended. We see something in a new light; something about ourselves, or the nature of love, or the depth of despair. True, our bodies and brains are highly functioning mechanisms, but industrializing our bodies in this way leads us to view other perfectly natural occurrences, such as speechlessness, as “breakdowns” in the system. This well-oiled machine of a being does so much more than preform jobs and duties to keep us running and contributing to society. We live with emotion so strong that it can overtake our mechanisms and leave

us, just for a moment, in our most vulnerable and authentic self. Savor those moments where you find yourself speechless, because in those moments you know you are truly alive.

Works Cited

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[1] Berger, Charles R. “ Speechlessness.” *Journal of Language and Social Psychology* , vol. 23, no. 2, 2004, pp. 147-179 .