Our Brains May Process Silence and Sounds the Same Way

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Can you hear the sound of silence? It’s a question that may seem better suited to a philosophy class (or a Simon & Garfunkel concert) than a science lab, but a new study published today in the Proceedings of the National Academy of Sciences suggests people really can “hear” the absence of noise. If the finding holds up, it could help researchers better understand the way the human auditory system processes sound, as well as the lack thereof.

“We can certainly appreciate silences, cognitively,” says Ned Block, a philosopher at New York University who wasn’t involved in the work. “But the question of whether we appreciate them perceptually is another matter.”

For decades, auditory scientists, psychologists, and philosophers have debated how the mind responds to the absence of sensory input. But these debates have often been sidelined in favor of learning how our cognitive systems interpret incoming signals from our eyes, ears, and senses, says Anya Farennikova, a philosopher at the University of Amsterdam. “There was a lot of research focusing on perception of objects, like tables, clouds, and trees, but absences were treated as something really abstract. They are treated as something exotic, like a black hole.”

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