

How clear speech equates to clear memory

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Some conversations are forgotten as soon as they are over, while other exchanges may leave lasting imprints. University of Texas at Austin researchers Sandie Keerstock and Rajka Smiljanic want to understand why and how listeners remember some spoken utterances more clearly than others. They're specifically looking at ways in which clarity of speaking style can affect memory.

Keerstock, a UT Austin doctoral student, and Smiljanic, an associate professor and linguist who heads UTsoundLab, will describe their work at the Acoustical Society of America's 176th Meeting, held in conjunction with the Canadian Acoustical Association's 2018 Acoustics Week in Canada, Nov. 5-9 at the Victoria Conference Centre in Victoria, Canada.

In one experiment, 30 native and 30 nonnative English listeners were presented with 72 sentences, broken down into six blocks of 12 sentences each. These sentences—such as "The grandfather drank the dark coffee" or "The boy carried the heavy chair"—were alternately produced in two different styles: "clear" speech, in which the speaker talked slowly, articulating with great

precision, and a more casual and speedily delivered "conversational" manner.

After hearing each block of a dozen sentences, listeners were asked to recall verbatim the sentences they had heard by writing them down on a sheet of paper, after being given a clue such as "grandfather" or "boy."

Both groups of listeners, native and nonnative, did better when sentences were presented in the clear speaking style. This is in line with their previous study in which clearly spoken sentences were recognized better than casual sentences as previously heard by both groups of listeners. The UT Austin researchers offer a possible explanation for these results: When a speaker is talking faster or failing to enunciate as crisply, listeners have to work harder to decipher what's being said. More mental resources, consequently, are drawn toward that task, leaving fewer resources available for memory consolidation.

Clearly produced speech could benefit students in the classroom and patients receiving instructions from their doctors, Smiljanic said. "That appears to be an efficient way of conveying information, not only because we can hear the words better but also because we can retain them better."

In their next round of experiments, she and Keerstock will focus on the speakers rather than the listeners to see whether speaking clearly affects their own memory. "If you're rehearsing for a lecture and read the material out loud in a hyperarticulated way," Keerstock asked, "will that help you remember better?"

Provided by Acoustical Society of America

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