

In noisy situations, your words and gestures help you to be understood

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Communication seems natural to us, but there are plenty of situations where background noise makes it hard for us to understand each other. In those moments, gesturing can come in handy, particularly if



conversations in your native language are taking place in the background. This has been shown in research by psycholinguist Veerle Wilms in cooperation with Susanne Brouwer and Linda Drijvers. Their paper is published on 19 April in the *Journal of Speech, Language, and Hearing Research*.

Suppose you want to order a drink in a busy pub or you are trying to explain something on a noisy train. You cannot always do this by just talking. Brouwer's research has already shown that background speech influences intelligibility. Drijvers has also concluded in earlier research that iconic gestures—gestures that carry meaning and where the shape of the gesture indicates what you are talking about—are useful for making yourself clear in noisy environments.

Wilms combined these findings in a new experiment. She recorded 180 videos in which an actress says a short sentence in Dutch, such as "He is ready to pray," or "She is very good at swimming."

"The last word was always an action verb; this verb was sometimes spoken by itself, or combined with an iconic gesture. The Dutch participants saw various videos with and without gestures. In the background, you could hear people speaking in Dutch or French, or nothing at all," Wilms says.

Listener benefits

Wilms wanted to test the extent to which gestures actually help with understanding words and sentences while conversations are taking place in the background, and whether it makes a difference whether the mother tongue (Dutch) or a foreign language (French) is heard in the background.

"Participants understood the verbs better when they were combined with



a gesture than when no gesture was shown," says Wilms. "Furthermore, participants found words easier to understand when there were French conversations in the background, rather than Dutch ones." That is because the participants were familiar with Dutch and because the Dutch sentences and Dutch <u>background noise</u> are very similar. That is not the case with Dutch sentences and French background noise.

Whether in cafés, restaurants, or shops, there are a lot of situations in which this knowledge is useful. "Both speakers and <u>listeners</u> can benefit from this: <u>speakers</u> by gesticulating and listeners from paying attention to their interlocutor's hands, particularly where conversations taking place in the background are in your mother tongue."

More information: Veerle Wilms et al, The Effects of Iconic Gestures and Babble Language on Word Intelligibility in Sentence Context, *Journal of Speech, Language, and Hearing Research* (2022). DOI: 10.1044/2022 JSLHR-21-00387

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