

Novel Approach Earns USU Assistant Professor National Recognition | CEHS

11/12/2015



When two people talk, words are just one part of the conversation.

Another important part is “entrainment,” which refers to the natural tendency for conversational partners to modify their speech to sound more like one another. This involves adjusting elements such as speaking rate, tone and inflection, vocal loudness, and the overall melodic rhythm of speech. Entrainment is important for many cognitive, social, and emotional functions, leading either to successful conversation or, if disrupted, to conversational breakdowns. Despite the importance of entrainment to successful conversation, it has received limited attention in the field of speech pathology and the study of communication disorders.

Recently, Dr. Stephanie Borrie proposed that entrainment deficits are likely a common feature of a range of communication disorders characterized by pathological speech behavior. As a first step to exploring speech entrainment in speech pathology, Dr. Borrie examined whether the presence of neurologically degraded speech,

dysarthria, had any measureable effect on the spoken productions of healthy subjects. In this study, Dr. Borrie and co-author Dr. Liss (at Arizona State University) found that healthy people modified their speech in the direction of the pathological speech, supporting examination of entrainment as a viable target of investigation, with implications that could lead to new ways of diagnosing communication breakdowns. This paper, “Rhythm as a Coordinating Device: Entrainment with Disordered Speech”, earned her research resulted in national recognition from the **American Speech-Language-Hearing Association** by being awarded the Editors Award for best article published in the speech section of the journal during 2014. An article selected for an Editor's Award is the one that the Editor and Associate Editor feel meets the highest quality standards in research design, presentation, and impact for a given year.

“The bulk of the message comes in the way we say things, not what we say,” Borrie said. “If we don't entrain, there's a general breakdown in the conversation.”

Borrie has gone on to study entrainment in real-life face-to-face conversations between healthy people, people with speech disorders, and people with foreign-accent. In a recent study published in *Frontiers in Psychology*, she showed that conversations involving people with speech disorders have much less entrainment than conversations with healthy native speakers. Further, she showed that conversational partners with less entrainment are also less effective in their communication exchange.

More study is needed before entrainment can be used as a diagnostic tool, but Borrie said she and other researchers are following up on the findings. She and Liss will be presented with their article award during the American Speech-Language-Hearing Association Convention in Denver later this month. Borrie currently directs the [Human Interaction Lab](#) in the Department of Communicative Disorders and Deaf Education at Utah State University.