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Prosodic and other paralinguistic features of speech differ across social contexts and roles

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Abstract

Prosodic (e.g., pitch, rhythm) and other paralinguistic features (e.g., laughter) shape speech dynamics, but the ways in which different communicative demands, such as social context and role, influence these features remain unclear. Using a podcast corpus, we analyzed speech across two contexts (monologue and dialogue) and roles (host and guest). We extracted 18 prosodic features (across pitch, rhythm, loudness, timbre, and voice quality) and annotated several paralinguistic features: proportion of laughter, proportion of interjections, and response offsets (inter-speaker gaps). Prosody differed reliably across contexts, such that dialogue exhibited more variable pitch, faster rhythm, narrower loudness range, more stable timbre, and rougher voice quality than monologue. Speakers also laughed more during dialogue than monologue. Additionally, hosts tended to laugh more and interject less than guests, but both groups had similar response offsets. Ongoing analyses will investigate role-based prosodic differences and the continuous relationship between these features and semantic meaning.

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