Stylistic Coherence in Individual Prosodic Variability

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The past decade has witnessed an explosion of studies comparing speech rhythm across various language varieties, many using the Pairwise Variability Index (PVI, [6]). This renewal of interest in the cross-linguistic typology of prosodic rhythm has been accompanied by cautions that common acoustic measures of rhythm are highly variable between speakers ([5]). This paper introduces evidence that, far from representing noise or unreliability, such variability is itself meaningful.

Many PVI studies attempt to reduce between-speaker variability with controls on the materials used, and some ([1]) have assessed the relative suitability of different "versions" of the PVI according to their degree of inter-speaker stability. Even the numerous studies that have used the PVI to examine within-language variation, by dialect ([6], [8]), native speaker status ([7]), or other a priori criteria, have paid minimal attention to the meaning of individual differences on rhythmic measures, despite findings from [5], [4] and [2] clearly demonstrating the need for such considerations.

I examine data from three female and three male characters in the (Mandarin) Chinese serial TV drama Nü ren hua 'Woman flowers' in order to investigate individual variation in prosodic rhythm. I measured normalized syllabic PVI (nSPVI, [1], [7]), the variation coefficient of ΔS (VarcoS, [3]) and another, non-prosodic, suprasegmental variable, the presence of creaky phonation. Figure 1, below, summarizes the measurements of these variables for female speakers HMR (N = 230 syls), LXL (N = 244 syls), and OYX (N = 280 syls).

![Figure 1](image)

I find that variation between the speakers is quite pronounced, and in particular the speaker LXL is more "stress-timed" than OYX and HMR on both measures of durational variability. But this distinction is not random noise: a similar difference emerges between LXL and the others on the unrelated measure of creaky phonation, demonstrating a degree of stylistic
coherence for each speaker and suggesting that PVI variability is patterned even among speakers of almost identical language varieties and may be stylistically meaningful.

References


