

Perceptual Similarity in Dysarthria

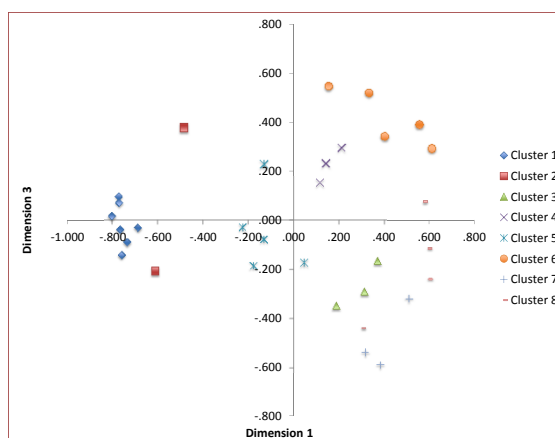
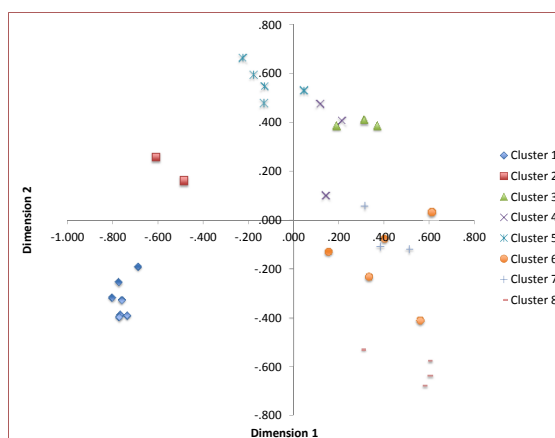
Classification of dysarthria, a motor speech disorder, is based on the underlying damaged component of motor control. This method of classification has provided a convenient framework but is limited in that 1) not all speakers with a similar etiology exhibit similar speech symptoms, 2) speech symptoms within a given classification may differ along the severity dimension, and 3) there is considerable overlap in speech symptoms among the classification categories.

The current study used a free classification task to investigate the construct of perceptual similarity in dysarthria in order to 1) reveal acoustic/perceptual dimensions salient to listeners, and 2) investigate whether or not listener-based clusters adhered to the etiology-based dysarthria diagnoses.

The results of this work suggest that experienced listeners relied on speaking rate, overall severity of the disorder and vocal quality to make their similarity judgments. In addition, the listener-derived clusters did not adhere to traditional dysarthria categories.

Future investigations will continue this work to advance a complementary approach to dysarthria diagnosis. One that more accurately captures the nature of the communication disorder associated with dysarthria

Cluster	Dysarthria subtypes
1	Hypokinetic ($n = 7$)
2	Hypokinetic ($n = 1$), Hyperkinetic ($n = 1$)
3	Ataxic ($n = 2$), Mixed ($n = 1$)
4	Ataxic ($n = 2$), Mixed ($n = 1$)
5	Ataxic ($n = 4$), Hyperkinetic ($n = 1$)
6	Mixed ($n = 3$), Ataxic ($n = 2$)
7	Hyperkinetic ($n = 2$), Ataxic ($n = 1$)
8	Mixed ($n = 3$), Ataxic ($n = 1$)



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