

# Supporting Information

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## SI Methods

We extracted fundamental frequency (F0), SD of fundamental frequency, formant dispersion and Harmonics-to-Noise (HNR) ratio values averaged across a given sentence clip. This yielded a total of 400 values per feature (10 sentences  $\times$  40 speakers) which were then reduced to 40 (one per speaker) by averaging each speaker's values for that feature over each of the recorded sentences.

Data from each feature were subjected to two-sample *t* tests, which indicated that Chinese and English speakers produced significantly different values for F0 [ $t(38) = 2.62, P = 0.01$ ] and SD of F0 [ $t(38) = 2.20, P = 0.03$ ]. No significant differences were found between the groups for formant dispersion or HNR ( $P$  values  $> 0.05$ ).

**Table S1. Selected acoustical features from stimulus battery (averaged over all 10 sentences produced by each speaker)**

	Chinese (Mandarin) speakers				UK (English) speakers			
	F0, Hz	SD of F0	Formant dispersion, kHz	HNR, dB	F0, Hz	SD of F0	Formant dispersion, kHz	HNR, dB
	224.57	33.92	1.06	13.18	251.83	42.42	1.06	14.76
	229.67	40.18	1.08	12.15	218.16	25.58	1.07	12.72
	230.27	45.49	1.01	12.19	174.31	41.78	1.01	9.99
	199.87	52.77	1.03	13.44	206.22	24.78	0.99	12.32
	197.43	28.92	1.07	12.49	213.58	37.60	1.07	12.57
	225.05	59.44	1.07	11.30	214.76	37.95	1.07	13.57
	221.89	43.33	1.09	11.83	169.44	47.94	1.02	10.29
	246.55	66.40	1.05	10.81	198.31	43.36	1.06	13.30
	188.68	43.93	1.03	9.65	184.95	30.16	1.05	10.95
	223.12	31.36	1.08	13.63	211.42	30.33	1.07	13.71
	176.75	28.68	1.09	11.16	177.98	38.40	1.02	11.89
	200.36	28.21	1.04	16.61	171.43	38.07	1.08	11.71
	208.59	44.81	1.07	9.99	193.04	28.75	1.03	11.99
	160.02	30.20	1.05	9.70	157.03	26.66	1.06	12.07
	238.02	35.29	1.06	13.97	195.79	18.77	1.09	14.71
	203.66	29.44	1.09	12.17	200.39	47.14	1.07	13.11
	265.72	61.79	1.01	13.22	216.28	21.57	1.05	12.79
	234.91	47.58	0.99	13.60	220.33	58.99	0.98	10.00
	214.22	48.55	1.09	11.97	186.75	28.14	0.97	10.67
	272.41	46.95	1.07	14.06	181.99	25.90	1.04	12.98
Mean	218.09	42.36	1.06	12.36	197.20	34.72	1.04	12.31
SD	27.58	11.68	0.03	1.70	22.53	10.30	0.03	1.41