

Supplementary material 6

Analyses of the average length of Utterances and Intonation Phrases based on several measures in Sec. IV D

We measured the average length of Utterances and IPs based on several measures. The tables below show the length of Utterance measured by duration in milliseconds, the number of morae, the number of SUWs, the number of IPs, the number of APs, and the number of lexical pitch accents. The results of paired t -tests are reported in the right panel of the tables.

TABLE 1: Utterance Length. Standard deviations in parentheses.

	ADS		IDS		t (20)
Duration (ms)	1556.46	(200.62)	1020.17	(166.84)	-11.595***
N of morae	11.60	(1.53)	6.92	(1.10)	-15.008***
N of SUWs	6.39	(0.81)	3.39	(0.55)	-17.136***
N of APs	2.55	(0.29)	1.73	(0.19)	-12.569***
N of IPs	1.71	(0.20)	1.39	(0.12)	-7.625***
N of accents	1.89	(0.24)	1.07	(0.18)	-13.715***

The table below shows the average length of IPs measured by duration in milliseconds, the number of morae, the number of SUWs, the number of APs, and the number of lexical pitch accents, as well as the results of paired t -tests.

TABLE 2: IP Length. Standard deviations in parentheses.

	ADS		IDS		t (20)
Duration (ms)	916.26	(99.28)	733.20	(88.25)	-6.666***
N of morae	6.81	(0.51)	4.97	(0.49)	-12.851***
N of SUWs	3.75	(0.27)	2.44	(0.27)	-15.359***
N of Aps	1.50	(0.06)	1.24	(0.07)	-11.225***
N of accents	1.11	(0.07)	0.77	(0.09)	-11.758***

As can be seen from the tables, all the measures show significantly larger values in ADS than IDS, confirming that Utterances and IPs are significantly longer in ADS than IDS according to all of the measures we used.

As shown in the histogram in the figure below, more of the IDS IPs are shorter, while more of the ADS IPs are longer. 35.92% of IPs in IDS have no pitch accents, while such phrases make up only 21.37% of ADS speech. In contrast, only 10.97% of IPs in IDS contain two or more pitch accents, while 25.67% of IPs in ADS contained two or more pitch accents.

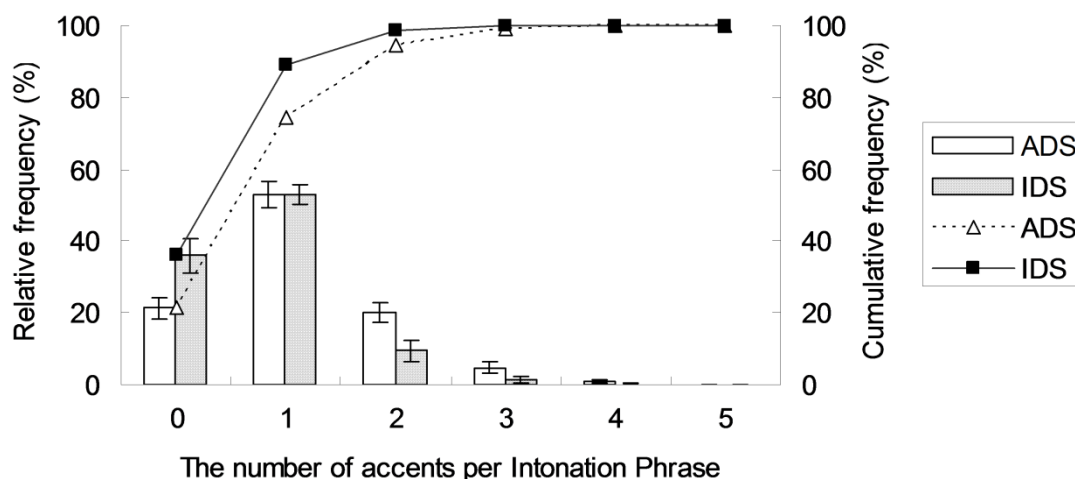


FIG 1. Relative (bars, left axis) and cumulative (curves, right axis) frequencies of IPs as a function of the number of accents per IP. Error bars represent standard deviations.

Note: This is a supplemental material to the following paper. Please refer to it when referring to the information contained in this Supplemental Material.

Igarashi, Y., Nishikawa, K., Tanaka, K., & Mazuka, R. (2013). Phonological theory informs the analysis of intonational exaggeration in Japanese infant-directed speech. *The Journal of Acoustical Society of America*, 134(2), 1283-1294.

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