

Figure S1. Threshold, slope, and RT difference across auditory salience levels. Green: Enhancement group; Orange: Suppression group.

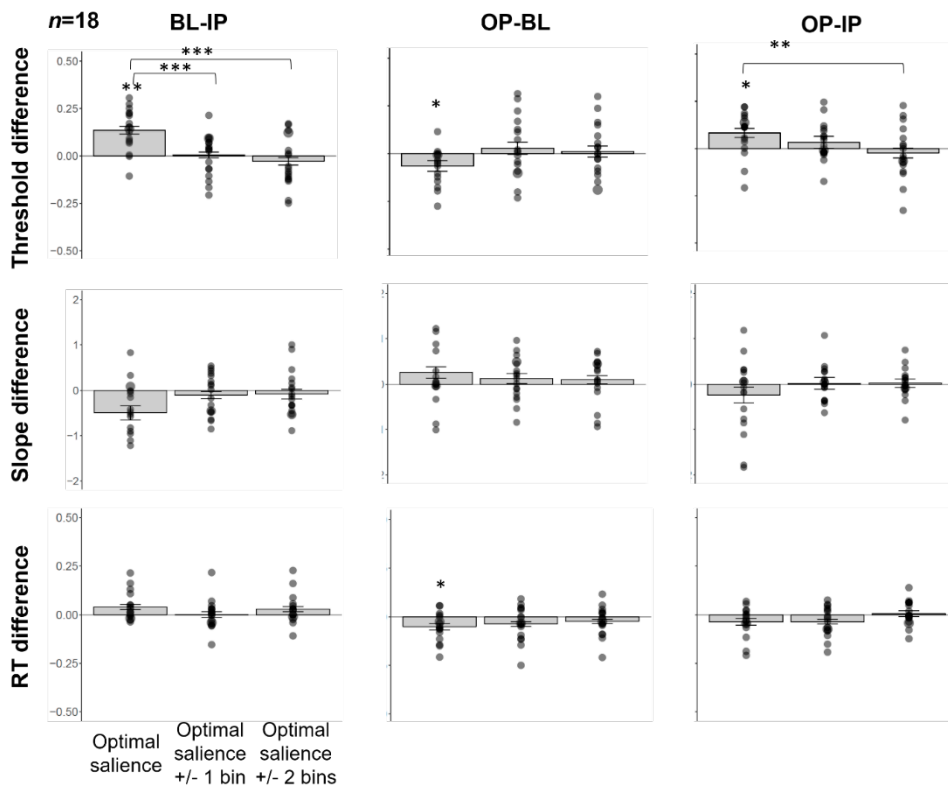


Figure S2. Threshold, slope, and RT difference aligned to individual participants' optimal auditory salience.

**Table S1.** Results of overall statistical analysis.

		<b>BL vs. IP</b>	<b>OP vs. BL</b>	<b>OP vs. IP</b>
Threshold difference	Mean threshold difference at mid-saliency ( <i>SD</i> )	-0.009 (0.137)	0.014 (0.144)	0.004 (0.172)
	t-test against zero for threshold difference at mid saliency	$t(17) = -0.292, p = 0.774$	$t(17) = 0.400, p = 0.694$	$t(17) = 0.103, p = 0.919$
	F-test for the main effect of saliency on threshold difference	$F(4,68) = 0.645, p = 0.632, \eta^2_G = 0.017$	$F(4,68) = 1.598, p = 0.185, \eta^2_G = 0.051$	$F(4,68) = 1.044, p = 0.391, \eta^2_G = 0.049$
		Intercept: $F(1,17) = 0.992, p = 0.333, \eta^2_G = 0.031$	Intercept: $F(1,17) = 0.005, p = 0.943, \eta^2_G < 0.001$	Intercept: $F(1,17) = 2.903, p = 0.107, \eta^2_G = 0.027$
Slope difference	Mean slope difference at mid-saliency ( <i>SD</i> )	-0.081 (0.563)	0.085 (0.714)	0.005 (0.511)
	t-test against zero for slope difference at mid saliency	$t(17) = 0.608, p = 0.551$	$t(17) = 0.508, p = 0.618$	$t(17) = 0.038, p = 0.970$
	F-test for the main effect of saliency on slope difference	$F(4,68) = 0.696, p = 0.598, \eta^2_G = 0.021$	$F(4,68) = 0.171, p = 0.953, \eta^2_G = 0.004$	$F(4,68) = 0.808, p = 0.524, \eta^2_G = 0.040$
		Intercept: $F(1,17) = 4.818, p = 0.042, \eta^2_G = 0.119$	Intercept: $F(1,17) = 0.777, p = 0.390, \eta^2_G = 0.026$	Intercept: $F(1,17) = 7.618, p = 0.013, \eta^2_G = 0.052$
RT difference	Mean RT difference at mid-saliency ( <i>SD</i> )	0.015 (0.066)	-0.029 (0.080)	-0.014 (0.073)
	t-test against zero for RT difference at mid saliency	$t(17) = 0.999, p = 0.332$	$t(17) = 1.549, p = 0.140$	$t(17) = 0.804, p = 0.433$
	F-test for the main effect of saliency on RT difference	$F(4,68) = 1.183, p = 0.326, \eta^2_G = 0.036$	$F(4,68) = 4.856, p = 0.002, \eta^2_G = 0.082$	$F(4,68) = 1.368, p = 0.254, \eta^2_G = 0.049$
		Intercept: $F(1,17) = 1.102, p = 0.308, \eta^2_G = 0.029$	Intercept: $F(1,17) = 5.028, p = 0.039, \eta^2_G = 0.169$	Intercept: $F(1,17) = 5.702, p = 0.029, \eta^2_G = 0.106$

**Table S2.** Results of statistical analysis based on data aligned by optimal auditory salience.

	BL vs. IP	OP vs. BL	OP vs. IP
Mean threshold difference at optimal salience ( <i>SD</i> )	0.135 (0.106)	-0.064 (0.91)	0.083 (0.114)
t-test against zero for threshold difference at optimal salience	$t(17) = 5.392, p < 0.002$	$t(17) = -3.002, p = 0.024$	$t(17) = 3.077, p = 0.021$
Threshold difference	$F(2,34) = 22.157, p < 0.001, \eta^2_G = 0.281$ * *Posthoc analysis: $ps < 0.001$ (Optimal vs. bin 1 & Optimal vs. bin 2) Intercept: $F(1,17) = 2.640, p = 0.123, \eta^2_G = 0.098$	$F(2,34) = 2.777, p = 0.076, \eta^2_G = 0.091$ Intercept: $F(1,17) = 0.197, p = 0.663, \eta^2_G = 0.004$	$F(2,34) = 3.774, p = 0.033, \eta^2_G = 0.127$ * *Posthoc analysis: $p = 0.009$ (Optimal vs. bin 2) Intercept: $F(1,17) = 3.747, p = 0.080, \eta^2_G = 0.066$
Mean slope difference at optimal salience ( <i>SD</i> )	-0.497 (0.826)	0.259 (0.797)	-0.239 (0.793)
Slope difference	t-test against zero for slope difference at optimal salience $t(17) = -2.555, p = 0.062$ F-test for the main effect of salience on slope difference $F(2,34) = 3.858, p = 0.031, \eta^2_G = 0.092$ * *Posthoc analysis: FDR-adjusted $ps > 0.098$ Intercept: $F(1,17) = 4.506, p = 0.049, \eta^2_G = 0.128$	$t(17) = 1.376, p = 0.654$ $F(2,34) = 0.620, p = 0.544, \eta^2_G = 0.014$ Intercept: $F(1,17) = 2.059, p = 0.169, \eta^2_G = 0.069$	$t(17) = -1.278, p = 0.405$ $F(2,34) = 1.159, p = 0.326, \eta^2_G = 0.050$ Intercept: $F(1,17) = 1.189, p = 0.291, \eta^2_G = 0.016$
Mean RT difference at optimal salience ( <i>SD</i> )	0.040 (0.070)	-0.051 (0.070)	-0.036 (0.073)
RT difference	t-test against zero for RT difference at optimal salience $t(17) = 2.418, p = 0.081$ F-test for the main effect of salience on RT difference $F(2,34) = 2.306, p = 0.115, \eta^2_G = 0.050$ Intercept: $F(1,17) = 3.009, p = 0.101, \eta^2_G = 0.098$	$t(17) = -3.068, p = 0.021$ $F(2,34) = 1.050, p = 0.361, \eta^2_G = 0.023$ Intercept: $F(1,17) = 6.868, p = 0.018, \eta^2_G = 0.202$	$t(17) = -2.100, p = 0.081$ $F(2,34) = 2.551, p = 0.093, \eta^2_G = 0.075$ Intercept: $F(1,17) = 4.021, p = 0.061, \eta^2_G = 0.098$