

## Music-Emotion Matching Study: Supplementary Materials

### Supplementary Table S1

*Full Baseline-Adjusted ANCOVA Results for All Affective Outcomes*

<b>Outcome</b>	<b><i>b</i></b>	<b><i>SE</i></b>	<b><i>t</i>(144)</b>	<b><i>p</i></b>	<b>Partial <math>\eta^2</math></b>
Panicky	0.03	0.06	0.45	.656	.00
Anxious	0.06	0.05	1.23	.220	.01
Worried	-0.01	0.04	-0.20	.838	.00
Nervous	0.02	0.04	0.54	.593	.00
Annoyed	-0.00	0.04	-0.06	.950	.00
Bitter	0.04	0.04	0.98	.330	.00
Angry	-0.03	0.02	-1.45	.150	.01
Bad-tempered	0.00	0.03	-0.12	.908	.00
Depressed	-0.02	0.03	-0.59	.558	.01
Downhearted	0.03	0.05	0.60	.552	.01
Unhappy	-0.04	0.03	-1.07	.285	.02
Miserable	0.02	0.03	0.95	.344	.00
Worn out	-0.14	0.16	-0.85	.396	.01
Exhausted	-0.20	0.15	-1.36	.177	.01
Sleepy	-0.33	0.10	-3.17	.002	.06
Tired	-0.07	0.15	-0.44	.658	.00
Lively	0.35	0.16	2.22	.028	.03
Energetic	0.33	0.16	2.08	.040	.03
Active	0.22	0.16	1.39	.168	.01
Alert	0.03	0.16	0.19	.849	.00
Confused	0.09	0.06	1.58	.116	.03
Muddled	0.09	0.05	1.79	.075	.02
Mixed up	0.08	0.05	1.48	.140	.02
Uncertain	0.00	0.05	-0.04	.967	.00
Tension	0.03	0.03	0.81	.422	.00
Anger (subscale)	0.00	0.02	0.16	.874	.00
Depression (subscale)	0.01	0.03	0.31	.760	.00
Fatigue (subscale)	-0.18	0.11	-1.76	.081	.02
Confusion (subscale)	0.06	0.03	1.70	.092	.03
Vigour (subscale)	0.24	0.13	1.86	.065	.01
Total Mood Disturbance	-0.26	0.21	-1.24	.216	.01

*Note.* N = 147. Models regressed post-exercise scores on condition with corresponding pre-exercise score as covariate.

### Supplementary Table S2

*Descriptive Pre–Post Means for Key Psychological Outcomes by Condition*

<b>Outcome</b>	<b>Group</b>	<b>n</b>	<b>Pre M (SD)</b>	<b>Post M (SD)</b>
Liveliness	Control	74	2.84 (1.01)	2.92 (1.07)
Liveliness	Emotion-matched	73	2.71 (1.06)	3.22 (1.02)

Energetic	Control	74	2.81 (0.87)	2.97 (1.05)
Energetic	Emotion-matched	73	2.78 (0.90)	3.29 (1.06)
Vigour	Control	74	2.86 (0.77)	3.00 (0.98)
Vigour	Emotion-matched	73	2.76 (0.79)	3.17 (0.82)
Sleepiness	Control	74	1.53 (0.76)	1.50 (0.83)
Sleepiness	Emotion-matched	73	1.59 (0.70)	1.19 (0.46)
Fatigue	Control	74	1.52 (0.57)	1.98 (0.74)
Fatigue	Emotion-matched	73	1.54 (0.61)	1.80 (0.62)
RPE	Control	74	12.57 (1.69)	12.89 (1.87)
RPE	Emotion-matched	73	12.53 (1.72)	13.04 (1.70)

Note. Descriptive values only. Inferential tests reported in main text.

### Supplementary Table S3

#### *Robustness Checks for Peloton Performance Outcomes*

Measure	Specification	Welch $p$	Mann–Whitney $p$	Cohen’s $d$	Direction Consistent
Cadence	Outliers retained	.491	.27	−0.12	Yes
	Winsorized (1–99%)	.418	.27	−0.14	Yes
Active calories	Outliers retained	.458	.44	0.12	Yes
	Winsorized	.436	.44	0.13	Yes
Distance	Outliers retained	.258	.16	0.19	Yes
	Winsorized	.258	.15	0.19	Yes
Speed	Outliers retained	.209	.16	0.21	Yes
	Winsorized	.235	.16	0.20	Yes
Resistance	Outliers retained	.056	.08	0.33	Yes
	Winsorized	.059	.08	0.33	Yes

### Supplementary Table S4

#### *Robustness Checks for Heart-Rate Outcomes*

Measure	Specification	Welch $p$	Mann–Whitney $p$	Cohen’s $d$	Direction Consistent
Mean HR	Outliers retained	.020	.03	0.42	Yes
	Winsorized	.031	.03	0.39	Yes
HRV	Outliers retained	.033	.06	0.39	Yes
	Winsorized	.081	.07	0.31	Yes
Maximum HR	Outliers retained	.505	.48	0.12	Yes
	Winsorized	.517	.49	0.11	Yes

### Supplementary Table S5

*Intercorrelations Among Mechanical Output Variables*

<b>Measure</b>	<b>Resistance</b>	<b>Speed</b>	<b>Distance</b>	<b>Calories</b>
Resistance	1.00	.88	.89	.44
Speed	.88	1.00	1.00	.58
Distance	.89	1.00	1.00	.60
Calories	.44	.58	.60	1.00

**Supplementary Table S6**

*Composite Total Work Index*

<b>Measure</b>	<b>Control <i>n</i></b>	<b><i>M</i> (<i>SD</i>)</b>	<b>Emotion- matched <i>n</i></b>	<b><i>M</i> (<i>SD</i>)</b>	<b><i>t</i>(126)</b>	<b><i>p</i></b>	<b><i>d</i></b>	<b>95% CI</b>
Total work ( <i>z</i> )	75	-0.10 (0.78)	67	0.14 (0.98)	-1.64	.103	0.28	[-0.61, 0.06]