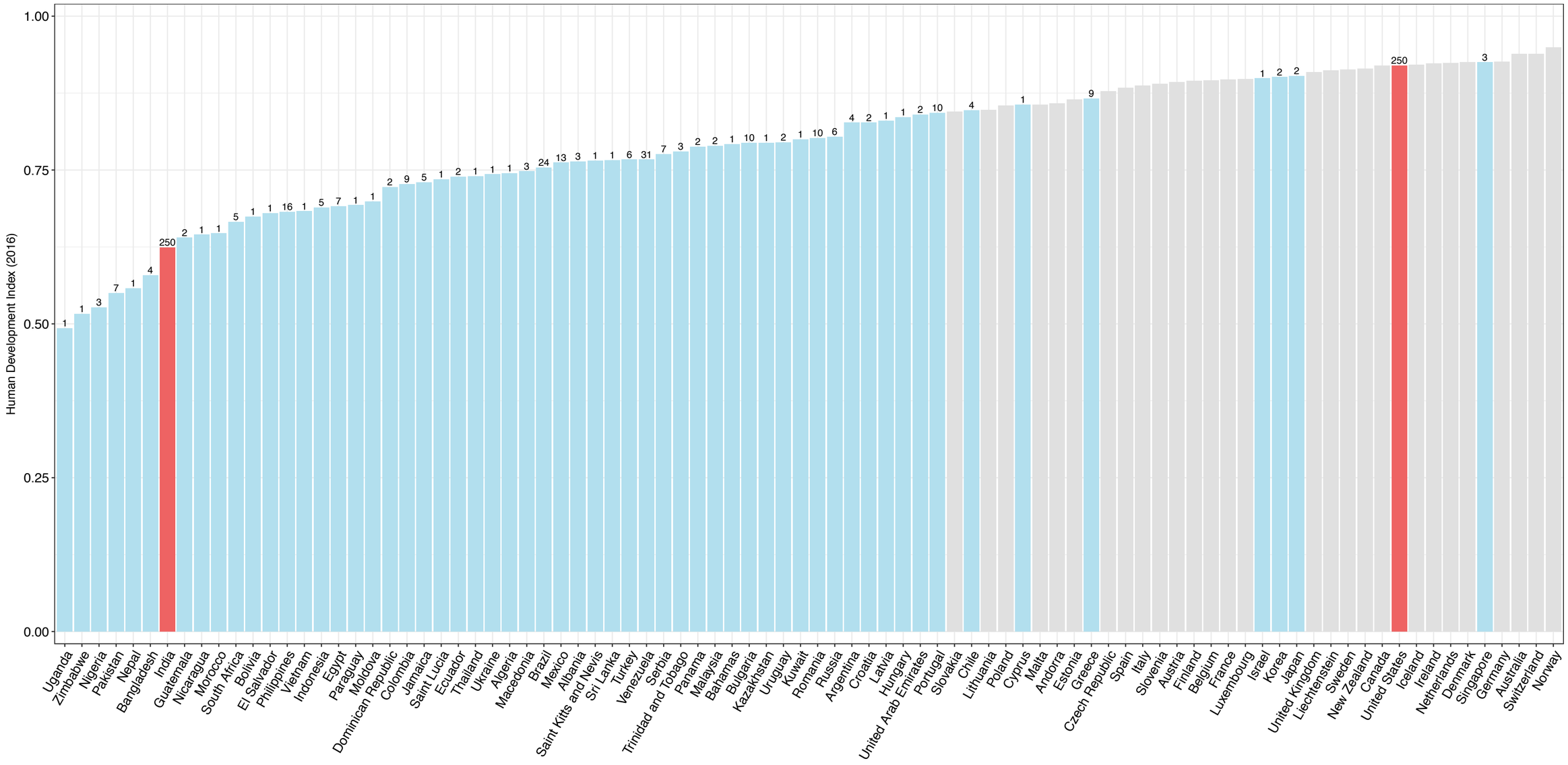

Figure S1. Human Development Index scores of countries included or excluded from MTurk recruitment. Related to Figure 1. The countries in the World cohort were determined by blocking participation on MTurk from 29 high-HDI [S1] countries and by further excluding any participants whose IP addresses geolocated to any high-HDI countries that are considered "Western" [S2]. The blocked countries' HDIs are depicted by the gray bars. The remaining low-HDI countries (depicted in blue) had an average HDI between that of the United States and India (depicted in red). The number of participants from each country is listed above each bar.

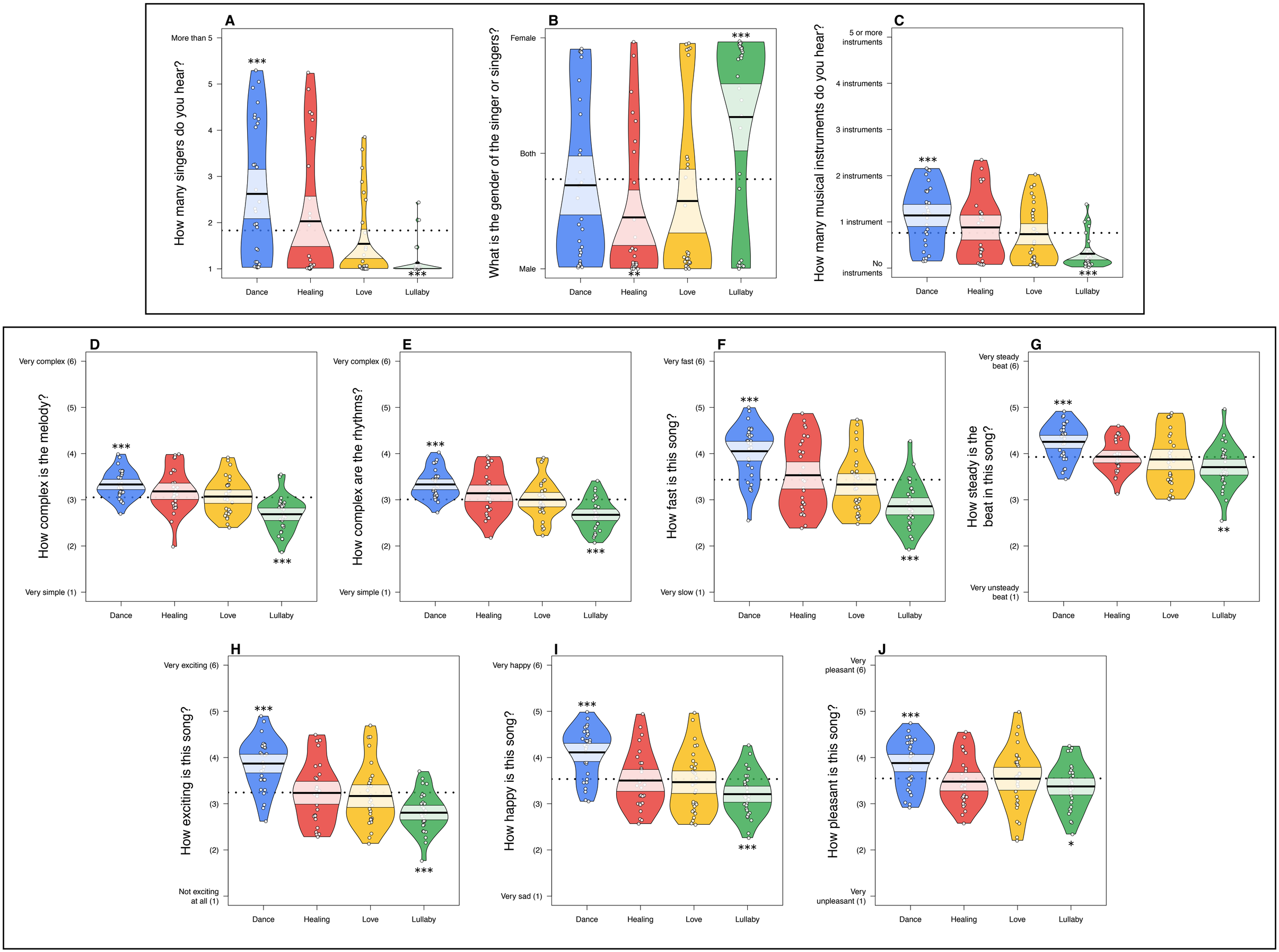

Figure S2. Feature ratings from Experiment 2. Related to Figure 4. Each panel shows the distribution of listeners' ratings of contextual features (**A–C**) and of musical features (**D–J**) for each song type. In each panel, each point represents a song's average rating, the violin plots are kernel density estimations, the black lines are means, and the shaded white areas are the 95% confidence intervals of the means. Dotted lines denote the grand mean on each feature. Asterisks denote p-values from t-tests comparing a target song type to the other three song types (***p < .001, **p < .01). Full reporting is in Table S1.

	M (SD)	M_{avg} (SD_{avg})	t	df	p	z-score
Dance songs						
Number of singers (1 = one; … ; 6 = six or more)	**2.62 (1.47)**	**1.56 (1.03)**	**3.70**	**39.2**	**.000679**	**0.86**
Gender of singer(s) (1 = all female; 0 = both; -1 = all male)	-0.28 (0.69)	-0.21 (0.81)	0.43	58.5	.666	-0.08
Number of instruments (0 = none; … ; 5 = five or more)	**1.14 (0.64)**	**0.64 (0.62)**	**3.74**	**48.6**	**.000491**	**0.76**
Melodic complexity	**3.33 (0.30)**	**2.97 (0.46)**	**4.85**	**77.9**	**6.18×10^{-6}**	**0.79**
Rhythmic complexity	**3.33 (0.31)**	**2.93 (0.45)**	**5.31**	**72.6**	**1.17×10^{-6}**	**0.87**
Tempo	**4.05 (0.57)**	**3.23 (0.69)**	**6.37**	**60.0**	**2.88×10^{-8}**	**1.09**
Steady beat	**4.25 (0.39)**	**3.84 (0.49)**	**4.77**	**63.4**	**.0000111**	**0.84**
Arousal	**3.87 (0.54)**	**3.07 (0.61)**	**6.76**	**56.0**	**8.66×10^{-9}**	**1.17**
Valence	**4.11 (0.54)**	**3.39 (0.60)**	**6.14**	**55.3**	**9.31×10^{-8}**	**1.09**
Pleasantness	**3.88 (0.51)**	**3.46 (0.57)**	**3.72**	**54.9**	**.000464**	**0.72**
Lullabies						
Number of singers	**1.13 (0.32)**	**2.06 (1.34)**	**6.06**	**109.3**	**1.94×10^{-8}**	**-0.76**
Gender of singer(s)	**0.31 (0.79)**	**-0.41 (0.69)**	**4.50**	**45.3**	**.0000475**	**0.93**
Number of instruments	**0.31 (0.35)**	**0.92 (0.67)**	**6.31**	**95.5**	**8.53×10^{-9}**	**-0.92**
Melodic complexity	**2.69 (0.37)**	**3.19 (0.40)**	**6.29**	**53.7**	**5.90×10^{-8}**	**-1.12**
Rhythmic complexity	**2.67 (0.34)**	**3.16 (0.43)**	**6.33**	**62.8**	**2.89×10^{-8}**	**-1.06**
Tempo	**2.86 (0.50)**	**3.64 (0.72)**	**6.51**	**72.0**	**8.78×10^{-9}**	**-1.04**
Steady beat	**3.71 (0.47)**	**4.02 (0.49)**	**3.14**	**51.7**	**.00278**	**-0.63**
Arousal	**2.81 (0.43)**	**3.43 (0.69)**	**5.78**	**82.0**	**1.32×10^{-7}**	**-0.90**
Valence	**3.21 (0.48)**	**3.70 (0.67)**	**4.33**	**70.5**	**.0000482**	**-0.74**
Pleasantness	**3.37 (0.50)**	**3.64 (0.60)**	**2.37**	**59.7**	**.0209**	**-0.45**
Healing songs						
Number of singers	2.03 (1.43)	1.76 (1.17)	0.89	38.9	.377	0.21
Gender of singer(s)	**-0.55 (0.63)**	**-0.13 (0.80)**	**2.95**	**56.5**	**.00462**	**-0.55**
Number of instruments	0.88 (0.70)	0.73 (0.65)	1.02	42.5	.311	0.23
Melodic complexity	3.18 (0.46)	3.03 (0.45)	1.53	43.6	.133	0.34
Rhythmic complexity	3.14 (0.47)	3.00 (0.45)	1.37	43.3	.177	0.30
Tempo	3.53 (0.77)	3.41 (0.75)	0.71	44.4	.479	0.16
Steady beat	3.93 (0.35)	3.94 (0.54)	0.14	69.9	.893	-0.02
Arousal	3.23 (0.65)	3.28 (0.71)	0.33	48.5	.745	-0.07
Valence	3.50 (0.62)	3.60 (0.68)	0.68	48.5	.500	-0.14
Pleasantness	3.48 (0.53)	3.60 (0.60)	1.02	50.4	.315	-0.21
Love songs						
Number of singers	1.54 (0.86)	1.92 (1.33)	1.81	78.4	.074	-0.31
Gender of singer(s)	-0.41 (0.74)	-0.16 (0.79)	1.56	52.9	.124	-0.32
Number of instruments	0.73 (0.63)	0.77 (0.67)	0.30	53.7	.767	-0.06
Melodic complexity	3.07 (0.40)	3.06 (0.47)	0.06	58.1	.952	0.01
Rhythmic complexity	3.00 (0.42)	3.05 (0.47)	0.50	54.9	.622	-0.10
Tempo	3.33 (0.63)	3.48 (0.79)	1.04	61.9	.301	-0.20
Steady beat	3.87 (0.60)	3.97 (0.46)	0.77	41.4	.446	-0.19
Arousal	3.17 (0.67)	3.30 (0.70)	0.97	52.4	.337	-0.20
Valence	3.47 (0.66)	3.61 (0.66)	1.02	50.4	.313	-0.21
Pleasantness	3.54 (0.67)	3.58 (0.55)	0.29	43.4	.773	-0.07

Table S1. Exploratory comparisons of feature ratings. Related to Figure 4. Feature comparisons are reported for each song type relative to the mean value across the other three song types (i.e., M (SD) refers to the target song group, while M_{avg} (SD_{avg}) refers to the average of the other song types). Statistics reported are from Satterthwaite's t-tests to correct for unequal variances across comparisons. Significant differences at alpha = .05 are bolded. Effect sizes are reported in feature-wise units of standard deviations (i.e., as z-scores, equivalent to Cohen's d). Unless otherwise noted, all variables are on a scale from 1 to 6, where 1 is low and 6 is high.

	Melodic complexity	Rhythmic complexity	Tempo	Steady beat	Arousal	Valence	Pleasantness
Melodic complexity	1						
Rhythmic complexity	.93	1					
Tempo	.73	.78	1				
Steady beat	.36	.38	.56	1			
Arousal	.76	.78	.83	.72	1		
Valence	.66	.71	.83	.61	.92	1	
Pleasantness	.49	.50	.52	.72	.82	.80	1

Table S2. Pearson correlations between musical feature ratings from Experiment 2. Related to Figure 4. All correlations are significant at $p < .001$.

	Component 1	Component 2
Melodic complexity	.83***	-.47***
Rhythmic complexity	.85***	-.46***
Tempo	.88***	-.19*
Steady beat	.71***	.57***
Arousal	.97***	.09
Valence	.93***	.09
Pleasantness	.81***	.45***

Table S3. Pearson correlations between principal components and the musical feature ratings from Experiment 2. Related to Figure 4. ***p < .001, **p < .01, *p < .05.

Variable	Model 1	Model 2	Model 3	Model 4
Number of singers	0.38***		0.15***	0.14***
	(0.05)		(0.04)	(0.04)
Gender of singer(s)	-0.10		-0.11*	-0.11*
	(0.08)		(0.05)	(0.05)
Number of instruments	1.25***		0.59***	0.59***
	(0.10)		(0.09)	(0.09)
Scores for principal component 1		0.51***	0.34***	0.31***
		(0.02)	(0.03)	(0.03)
Scores for principal component 2		-0.01	0.06	0.06
		(0.05)	(0.04)	(0.04)
Indicator variable: Dance song				0.33**
				(0.10)
Constant	1.24***	2.92***	2.16***	2.11***
	(0.11)	(0.05)	(0.12)	(0.11)
F	112	272	172	157
Degrees of freedom	3, 114	2, 115	5, 112	6, 111
p	8.07×10^{-34}	2.52×10^{-44}	7.48×10^{-51}	7.83×10^{-52}
R^2	.746	.826	.885	.895
Nested comparison to Model 1				
Change in R^2			.138	.148
F			67.3	52.0
Degrees of freedom			2, 112	3, 111
p			6.42×10^{-20}	4.59×10^{-21}

Table S4. Regression models testing relations between function ratings of "for dancing" to contextual features, musical features, and dance songs. Related to Figures 2 and 4.
Comparisons to Model 1 are nested general linear hypothesis tests. Standard errors are in parentheses. Partial correlations are in brackets. ***p < .001, **p < .01, *p < .05.

Variable	Model 1	Model 2	Model 3	Model 4
Number of singers	-0.20***		-0.14***	-0.12*
	(0.05)		(0.05)	(0.05)
Gender of singer(s)	0.58***		0.56***	0.46***
	(0.08)		(0.07)	(0.07)
Number of instruments	-0.57***		-0.38**	-0.35**
	(0.10)		(0.12)	(0.11)
Scores for principal component 1		-0.22***	-0.08	-0.05
		(0.03)	(0.04)	(0.04)
Scores for principal component 2		0.32***	0.24***	0.20***
		(0.07)	(0.05)	(0.05)
Indicator variable: Lullaby				0.50***
				(0.15)
Constant	3.34***	2.41***	3.09***	2.87***
	(0.11)	(0.07)	(0.15)	(0.16)
F	53.8	36.4	172	157
Degrees of freedom	3, 114	2, 115	5, 112	6, 111
p	8.07×10^{-34}	5.72×10^{-13}	5.13×10^{-24}	1.59×10^{-25}
R^2	.586	.388	.650	.683
Nested comparison to Model 1				
Change in R^2			.064	.097
F			10.2	11.3
Degrees of freedom			2, 112	3, 111
p			.0000821	1.55×10^{-6}

Table S5. Regression models testing relations between function ratings of "to soothe a baby" to contextual features, musical features, and lullabies. Related to Figures 2 and 4.
Comparisons to Model 1 are nested general linear hypothesis tests. Standard errors are in parentheses. Partial correlations are in brackets. ***p < .001, **p < .01, *p < .05.

Variable	Model 1	Model 2	Model 3	Model 4
Number of singers	-0.10*		0.00	-0.01
	(0.04)		(0.04)	(0.04)
Gender of singer(s)	-0.23***		-0.23***	-0.20***
	(0.06)		(0.05)	(0.05)
Number of instruments	-0.10		0.21*	0.19*
	(0.07)		(0.09)	(0.09)
Scores for principal component 1		-0.10***	-0.16***	-0.15***
		(0.02)	(0.03)	(0.03)
Scores for principal component 2		-0.07	-0.04	-0.02
		(0.04)	(0.04)	(0.04)
Indicator variable: Healing song				0.24*
				(0.10)
Constant	3.44***	3.23***	3.01***	2.99***
	(0.09)	(0.04)	(0.11)	(0.11)
F	8.92	15.7	12.9	12.3
Degrees of freedom	3, 114	2, 115	5, 112	6, 111
p	.0000233	.000000913	6.34×10^{-10}	1.45×10^{-10}
R^2	.190	.215	.366	.399
Nested comparison to Model 1				
Change in R^2			.176	.209
F			15.5	11.3
Degrees of freedom			2, 112	3, 111
p			1.13×10^{-6}	2.83×10^{-7}

Table S6. Regression models testing relations between function ratings of "to heal illness" to contextual features, musical features, and healing songs. Related to Figures 2 and 4.
Comparisons to Model 1 are nested general linear hypothesis tests. Standard errors are in parentheses. Partial correlations are in brackets. ***p < .001, **p < .01, *p < .05.

Variable	Model 1	Model 2	Model 3	Model 4
Number of singers	-0.04		-0.15***	-0.13***
	(0.04)		(0.04)	(0.04)
Gender of singer(s)	0.31***		0.30***	0.32***
	(0.06)		(0.05)	(0.05)
Number of instruments	0.08		-0.24**	-0.24**
	(0.08)		(0.09)	(0.09)
Scores for principal component 1		0.06**	0.17***	0.17***
		(0.02)	(0.03)	(0.03)
Scores for principal component 2		0.16**	0.11*	0.11**
		(0.05)	(0.04)	(0.04)
Indicator variable: Love song				0.30**
				(0.09)
Constant	3.12***	3.03***	3.55***	3.46***
	(0.09)	(0.05)	(0.11)	(0.11)
F	9.04	9.20	16.2	16.4
Degrees of freedom	3, 114	2, 115	5, 112	6, 111
p	.0000202	.000196	5.77×10^{-12}	1.78×10^{-13}
R^2	.192	.138	.419	.470
Nested comparison to Model 1				
Change in R^2			.227	.278
F			21.8	19.4
Degrees of freedom			2, 112	3, 111
p			9.81×10^{-9}	3.37×10^{-10}

Table S7. Regression models testing relations between function ratings of "to express love to another person" to contextual features, musical features, and love songs. Related to Figures 2 and 4. Comparisons to Model 1 are nested general linear hypothesis tests. Standard errors are in parentheses. Partial correlations are in brackets. ***p < .001, **p < .01, *p < .05.

Supplemental References

S1. UNDP ed. (2016). Human development for everyone (New York, NY: United Nations Development Programme).

S2. Huntington, S.P. (1997). The clash of civilizations and the remaking of world order (New York: Simon & Schuster).