

## Supplementary Material

Supplementary Table 1. Correlations between music training, musical aptitude, melody discrimination, pitch discrimination, rhythm discrimination, verbal ability, spatial ability, logical ability and technical ability. Above the diagonal full correlations and below the diagonal partial correlations while controlling for general intelligence.

	Music training	Musical aptitude	Melody discrimination	Pitch discrimination	Rhythm discrimination	Verbal ability	Spatial ability	Logical ability	Technical ability	General intelligence
Music training	-	.35**	.27**	.33**	.18**	.11*	.07*	.09**	.08*	.07*
Musical aptitude	.35**	-	.79**	.75**	.76**	.36**	.31**	.39**	.33**	.38**
Melody discrimination	.27**	.78**	-	.41**	.42**	.24**	.21**	.24**	.21**	.27**
Pitch discrimination	.33**	.73**	.36**	-	.33**	.25**	.22**	.30**	.28**	.30**
Rhythm discrimination	.17**	.73**	.37**	.26**	-	.33**	.27**	.37**	.26**	.31**
Verbal ability	.08*	.25**	.16**	.15**	.24**	-	.48**	.68**	.45**	.38**
Spatial ability	.02	.14**	.10**	.07*	.13**	.35**	-	.58**	.54**	.54**
Logical ability	.06	.24**	.12**	.16**	.25**	.60**	.41**	-	.52**	.55**
Technical ability	.05	.20**	.12**	.17**	.15**	.33**	.41**	.38**	-	.45**

\*\* $p < .001$ , \* $p < .05$ . Note that melody, pitch and rhythm discrimination form part of the overall musical aptitude score.

Supplementary Table 2. Twin correlations per zygoty group for musical aptitude, verbal ability, music training and general intelligence.

	Musical aptitude	Verbal ability	Music training	General intelligence
<b>MZ male twins</b>	.72 (.65-.77)	.74 (.67-.79)	.59 (.51-.66)	.63 (.56-.69)
<b>DZ male twins</b>	.53 (.40-.62)	.46 (.32-.58)	.38 (.23-.51)	.39 (.28-.49)

Supplementary Figure 1. The relationship between musical aptitude and verbal ability ( $r = .36$ ), music training and verbal ability ( $r = .11$ ) and their best linear fit when adjusting for general intelligence ( $r = .25$  and  $.08$  respectively).

