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Musical twins

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Variations in individual [pitch perception](#) ability could be exploited to search for genes related to this complex musical trait. In the March 9 [Science](#), Dennis Drayna and colleagues describe a large [twin study](#) aimed at determining the genetic contributions to musical pitch recognition abilities (*Science* 2001, **291**:1969-1972). Drayna *et al* used an updated '[distorted tunes test](#)' (DTT) in which subjects listened to popular melodies and were asked to recognize notes inserted into these melodies that were of incorrect pitch. They tested female twin pairs (136 monozygotic, MZ, and 148 dizygotic, DZ) for pitch recognition ability, and applied genetic model-fitting techniques to ascertain the genetic and environmental contributions. They obtained a DTT correlation score of 0.67 for the MZ pairs, and 0.44 for the DZ pairs. The heritability was estimated at 71-80%. The poor correlation between DTT scores and peripheral hearing abilities suggest that musical pitch recognition is independent of peripheral hearing and may use different physiological mechanisms.

References

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