

CONTENTS

The features marked with a star (*) are based entirely on material taken straight from standard research (and other Official and Therefore Always Correct) literature. Many of the other articles are genuine, too, but we don't know which ones.

Special Section: Music

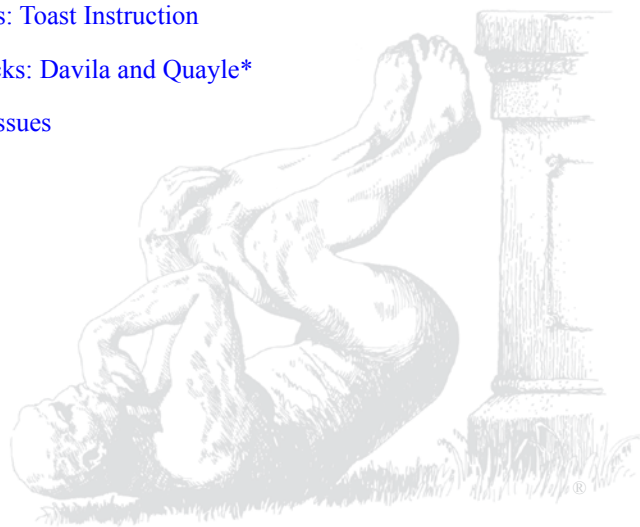
- 5 Music for Spies, Penguins, and Dreams*
- 7 How or Why Musicians Raise Eyebrows*
- 9 Can Sopranos Be Understood?*
- 12 Music Research Review*
- 15 Dangerous Trends in Oboe Playing*
- 17 Are People Bad Singers?*
- 19 Unperformable, Damaging, and Stolen Music*
- 21 Medical: Depression? Addiction? Deafness?*
- 23 Insects and Music Research*

Improbable Research Reviews*

- 3 Improbable Research: Unreadability, Candy-Snatching, Counter-Clockwise*
- 25 Improbable Sex: Stuck Toy, Fifty-Shades Boom Bust*
- 28 Icky Cutesy: Don't Bet, Need Shoe, Burnt Butt*

News & Notes

- 2 AIR Vents (letters from our readers): Baby Tongues and Johnny Cash
- 4 Editorial Board
- 4 AIR books
- 26 Puzzling Solutions: Toast Instruction
- 27 Ig® Nobel Limericks: Davila and Quayle*
- 28 Index of Special Issues
- IBC Teachers' Guide
- IBC Unclassified Ads



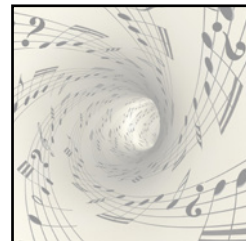
ANNALS OF

IMPROBABLE RESEARCH



On the Front Cover

Music is a source of confusion and thus inspiration, for some scholars.



On the Back Cover

Chocolates that resemble tools and hardware, on sale in a train station in Manchester, UK. Photo: Alice Shirrell Kaswell.



Some Coming Events

See IMPROBABLE.COM for details of these and other events:

March–April 2018

Ig Nobel EuroTour

July 2018

Ig Nobel Ceremony Tickets go on sale

September 13, 2018

Ig Nobel Prize Ceremony, Harvard U

September 15, 2018

Ig Informal Lectures, MIT

September 2018

Japan

October 10, 2018

Hartford, CT, USA

Autumn 2018

Ig Nobel Fall EuroTour

Where There's More

There's always new improbable — it's not what you expect! — stuff on the **Improbable Research** blog at IMPROBABLE.COM

ARE PEOPLE BAD SINGERS?

A question that has plagued listeners

by Fritz Frau, *Improbable Research staff*

Most People Are Not Horrible Singers

“Singing Proficiency in the General Population,” Simone Dalla Bella, Jean-François Giguère, and Isabelle Peretz, *Journal of the Acoustic Society of America*, vol. 121, no. 2, February 2007, pp. 1182-1189. The authors, at the University of Finance and Management in Warsaw, Poland, and the University of Montreal, Canada, report:

Most believe that the ability to carry a tune is unevenly distributed in the general population. To test this claim, we asked occasional singers ($n=62$) to sing a well-known song in both the laboratory and in a natural setting (experiment 1). Sung performances were judged by peers for proficiency, analyzed for pitch and time accuracy with an acoustic-based method, and compared to professional singing. The peer ratings for the proficiency of occasional singers were normally distributed. Only a minority of the occasional singers made numerous pitch errors. The variance in singing proficiency was largely due to tempo differences. Occasional singers tended to sing at a faster tempo and with more pitch and time errors relative to professional singers...

[Singing] appears to be a universal human trait. However, two of the occasional singers maintained a high rate of pitch errors at the slower tempo. This poor performance was not due to impaired pitch perception, thus suggesting the existence of a purely vocal form of tone deafness.



Isabelle Peretz, co-author of the studies “Singing Proficiency in the General Population” and “A Frog in Your Throat or in Your Ear? Searching for the Causes of Poor Singing.”

Singing proficiency in the general population

Simone Dalla Bella^{a)}

Department of Cognitive Psychology, University of Finance and Management in Warsaw, UL. 01-030 Warsaw, Poland

Jean-François Giguère and Isabelle Peretz

Department of Psychology, University of Montreal, Montreal, Canada

(Received 7 August 2006; revised 12 November 2006; accepted 22 November 2006)

Most believe that the ability to carry a tune is unevenly distributed in the general population. To test this claim, we asked occasional singers ($n=62$) to sing a well-known song in both the laboratory and in a natural setting (experiment 1). Sung performances were judged by peers for proficiency, analyzed for pitch and time accuracy with an acoustic-based method, and compared to professional singing. The peer ratings for the proficiency of occasional singers were normally distributed. Only a minority of the occasional singers made numerous pitch errors. The variance in singing proficiency was largely due to tempo differences. Occasional singers tended to sing at a faster tempo and with more pitch and time errors relative to professional singers...

continued >

ARE PEOPLE BAD SINGERS? [CONTINUED]

Some Explanations of Some Bad Singing

“A Frog in Your Throat or in Your Ear? Searching for the Causes of Poor Singing,” Sean Hutchins and Isabelle Peretz, *Journal of Experimental Psychology: General*, vol. 141, no. 1, 2012, pp. 76–97. The authors, at the University of Montreal, report:

To help discriminate between these causes of poor singing, we conducted 5 experiments testing musicians and nonmusicians in pitch matching and judgment tasks. Experiment 1 introduces a new instrument called a slider, on which participants can match pitches without using their voice. Pitch matching on the slider can be directly compared with vocal pitch matching, and results showed that both musicians and nonmusicians were more accurate using the slider than their voices to match target pitches, arguing against a perceptual explanation of singing deficits....

The pattern of results across experiments demonstrates multiple possible causes of poor singing, and attributes most of the problem to poor motor control and timbral–translation errors, rather than a purely perceptual deficit, as other studies have suggested.

Detail from the study “A Frog in Your Throat or in Your Ear? Searching for the Causes of Poor Singing.”

A Frog in Your Throat or in Your Ear? Searching for the Causes of Poor Singing

Sean Hutchins and Isabelle Peretz
Université de Montréal

Singing is a cultural universal and an important part of modern society, yet many people fail to sing in tune. Many possible causes have been posited to explain poor singing abilities; foremost among these are poor perceptual ability, poor motor control, and sensorimotor mapping errors. To help discriminate between these causes of poor singing, we conducted 5 experiments testing musicians and nonmusicians in pitch matching and judgment tasks. Experiment 1 introduces a new instrument called a slider, on which

