

[TODAY'S E-PAPER](#) [SUBSCRIBE](#) [E-FLYERS](#) [OBITUARIES](#) [HOROSCOPE](#) [SUDOKU](#) [CROSSWORD](#) [CONTESTS](#) [CONTACT](#)

The ChronicleHerald.ca

SCIENCE

Halifax, NS | Sat, April 30th, 2011

Halifax

Currently



4.8°C

Latest Observation

weatheroffice
Environment Canada
[News](#) [Opinions](#) [Business](#) [Sports](#) [Arts & Life](#) [Community](#) [Wheels](#) [JobsPress](#) [Classified](#) [Archive](#)
[Jobspress](#) | [Salary Wizard](#) | [Resume Connector](#) | [Job Notifier](#) | [News & Resources](#) | [Advertising](#) | [Post a Job](#)

Text + -

[LOGIN/REGISTER](#)

Search this site:

Search

Bullying by the numbers

 By JASON BROWN
 Sat, Apr 30 - 4:54 AM


I am sitting at my desk, looking at a picture of Jenna Bower-Bryanton of Truro. Beautiful, talented Jenna, who took her own life after being on the receiving end of a lot of bullying.

I'm also cognizant of the fact that the memorial day for the Holocaust is May 2. The holocaust was bullying on an unspeakably enormous scale, and as a mathematician, I can't help but draw a connection.

I previously wrote about mathematical reasoning and morality. Here I want to speak about the numbers behind bullying — the social cost.

Ads by Google

[Film Ebraico](#)
[La Bibbia in Ebraico](#)
[Sabato in Ebraico](#)
[Studiare Ebraico](#)
[Traduzioni Ebraico](#)

Jews comprise about 0.2 per cent of the world's population. And yet, of 182 Nobel Prizes in physiology and medicine, 49 prizes went to Jewish people. What is the probability of this happening just by chance?

You would expect a group of only 0.2 per cent to win not even one of the 182 awards. I did a calculation. The chance that a random group of 0.2 per cent of the world's population receiving at least 49 out of 182 Nobel prizes in physiology and medicine is the same as the probability that purchasing a single ticket each week for Lotto 649, you win the top prize — every week for close to four years!

The figures are even more staggering if you consider all Nobel Prizes, where from 1901 up to and including 2008, 163 out of 750 were awarded to Jewish people. The chances of something this extreme happening are the same as winning Lotto 649 each week for over 10 years!

Along with the loss of six million Jews in the Holocaust, thousands of creative, brilliant ideas were lost as well. Did you lose someone in the Holocaust? Perhaps you think not. But if you have lost someone to a heart attack, stroke, cancer, diabetes or one of countless other diseases, you likely did.

I say this because the probability of humankind being much further ahead in treating (or even curing) such illnesses would have increased had the Holocaust not occurred. What a huge toll on all of us.

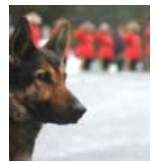
Back to the story of Jenna, which brings to mind Felix Hausdorff. Felix was a world-famous mathematician, discovering many results that had eluded others of his generation. Among many insightful ideas was his notion of dimension of a set that didn't need to be a whole number, like two dimensional or three dimensional. It could be any fraction.

This idea was essential in the development of fractals, which I mentioned in my last article. And fractal dimensions are showing great promise in recognizing pathology in various organs, such as the brain.

Felix was Jewish, and lived in Germany as the Nazis rose to power. His world-renowned

PHOTO GALLERIES


 Kate & William
 A royal wedding

 Week in Pictures
 April 17-23

 The week in Pictures
 April 10-16, 2011

 ANNOUNCEMENTS: [Obituaries](#) | [Births](#) | [Cards](#) | [InMemoriams](#) | [Milestones](#)

\$17,499
FREIGHT NOT INCLUDED

**BRAND NEW
2011
CHEVROLET
SILVERADO
REGULAR CAB 2WD**

CHEVROLET

MARITIMECHEVROLET.CA

WEEKLY SCIENCE

[New blood thinners on stream \(2011-04-30\)](#)
[Bullying by the numbers \(2011-04-30\)](#)
[Brain bypass surgery has unexpected benefit \(2011-04-30\)](#)
[SCIENCE QUESTIONS \(2011-04-30\)](#)
[RECOMMENDED](#) [EMAILED](#) [COMMENTED](#) [VIEWED](#)

- [Suspicious death probed](#) (10,177 views)
- [The Coast apologizes, retracts story on Kutcher](#) (6,252 views)
- [Welcome to Nova Scotia, 'Steven' Harper](#) (5,095 views)
- [Province mistakenly sells 7 bulletproof vests](#) (3,886 views)
- [Police arrest Cole Harbour man on child porn charges](#) (3,604 views)
- [Bullets shot through window of Halifax home](#) (3,294 views)
- [Big question day after royal wedding: Where's the honeymoon?](#) (2,809 views)
- [Satellite could hurt N.S. signal](#) (2,635 views)
- [ASTROLOGICAL FORECAST](#) (2,509 views)

research was deemed "Jewish" and therefore of "no use," by the German government. Feeling the anti-Semitic persecution intensely, Hausdorff took his own life as his deportation to a concentration camp became imminent.

10. [Man gets 10 years for 'reprehensible' sex crimes against children](#)
(2,499 views)

Bullying, on a grand scale, took a brilliant mind from us. Who knows what ideas were lost along with him? So this brings me around to Jenna again. Whatever great talent she had to give is lost, and that is a loss for all of us.

The world I want has the Jennas and the Felixes reaching their full potential. Bullying costs us all and we need to stand up for the victims.

On May 2, I encourage you to attend a service for Holocaust Memorial Day and recognize what we have all lost through bullying. Recognizing the magnitude of costs to all of us is the first step in changing the world.

Jason I. Brown is a professor of mathematics at Dalhousie University.

Mother's Day Gift Ideas

We Have The Gifts Your Mom Wants This Mother's Day! Find Her Gift
www.ATrueBeautv.ca



- | | | | | | |
|---|---|--|---|---|---|
| NEWS <ul style="list-style-type: none">-Front Page-Metro-Nova Scotia-Canada-World-Business-Sports-Arts & Life-Travel-Books-Religion-Science-The Nova Scotian | OPINIONS <ul style="list-style-type: none">-Editorials-Columnists-News Columns-Business Columns-Sports Columns-Arts & Life Columns-Community Blogs-Community Reviews-MacKinnon Cartoon | MULTIMEDIA <ul style="list-style-type: none">-Photos-Videos-Community Photos | NEWSPAPER <ul style="list-style-type: none">-Today's E-Paper-Classifieds-Place a Classified Ad-Subscribe-NIE-Professional Directory-South Shore Calendar | ADVERTISING <ul style="list-style-type: none">-Advertising Sales-Web Advertising-Media Kits, Etc.-Place a Classified Ad-Pay Your Account | USEFUL INFORMATION <ul style="list-style-type: none">-E-Flyers-Eye on Nova Scotia-N.S. Highway Cams-Horoscope-Lotteries-Tides-Weather-Movie Times-What's Happening-Mayflower TV Guide-Herald Archive |
| COMMUNITY <ul style="list-style-type: none">-Community News-NS Communities | ANNOUNCEMENTS <ul style="list-style-type: none">-Obituaries-Births-Cards-InMemoriams-Milestones-Contact us to place an Announcement | JOBSPRESS <ul style="list-style-type: none">-JobsPress-Advertising-Post a Job | ABOUT THE HERALD <ul style="list-style-type: none">-About Us-Contact Us-Work @ The Herald-F.A.Q-Library Services-Privacy Policy-Terms of Use | CLIENTS <ul style="list-style-type: none">-Print Upload-Web Upload-Real Estate Portal-Media Kits, Etc. | FUN & GAMES <ul style="list-style-type: none">-Lotteries-Sudoku-Crossword-Comics-Contests |