

Journalism v Science

Why can't they be friends?

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The curious case of Lee Spievack's finger



Live, from the Magic Forest

“You might become a believer in the power of magic dust, when you see how a special powder re-grew the tip of Lee Spievack's finger”

- CBS Evening News, February 7, 2008

Pixies, the future of medicine

“ ‘Pixie’ dust helps finger grow”

– BBC News, April 30, 2008

“ ‘Pixie Dust’ From Pig’s Bladder Regrows Man’s
Finger”

– Fox News, May 1, 2008

Paging a hand specialist

“Doctors though believe that within the so called pixie dust lies an amazing medical discovery”

– BBC News

“Wave Goodbye to the USA”

headline – Daily Express, October 11, 2000

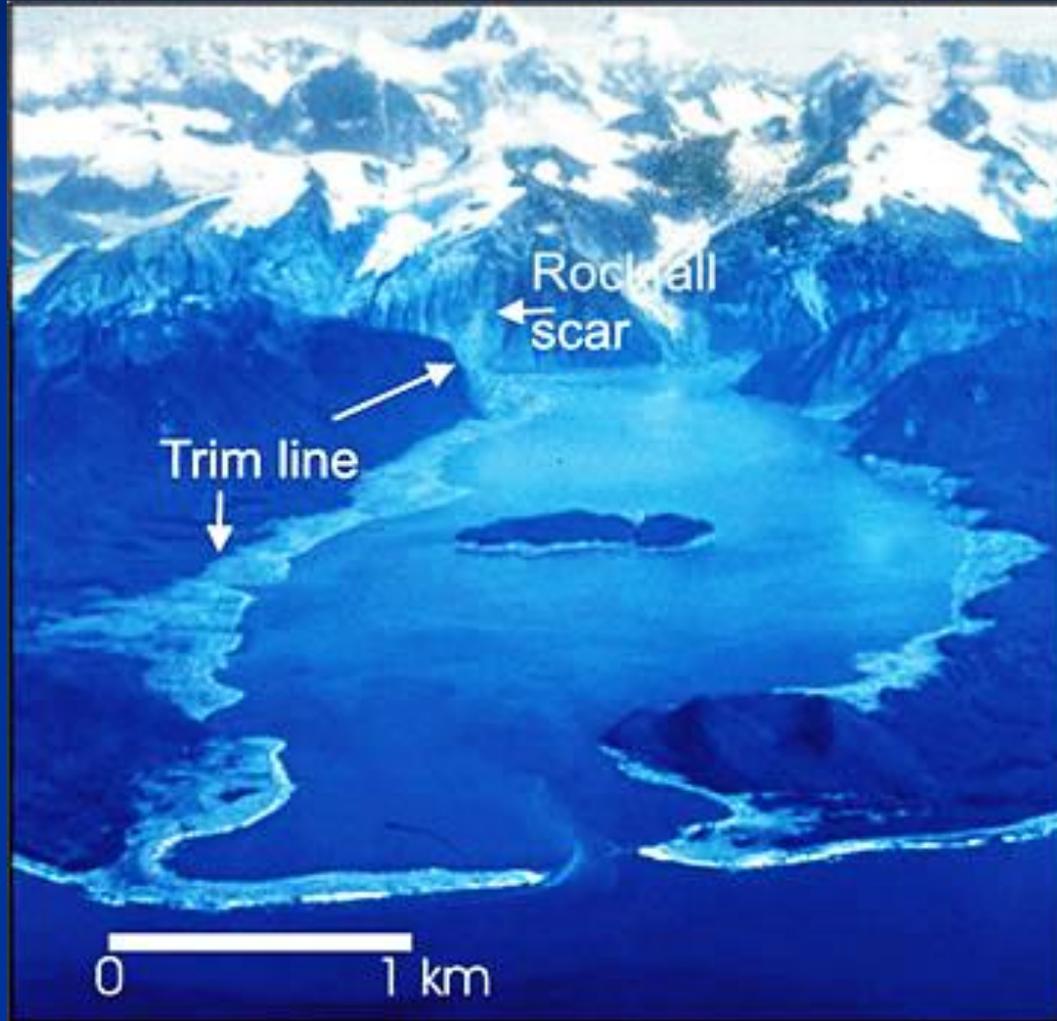


How big?

“...the Americas are under threat from a monster wave of Hollywood -- even Biblical -- proportions, scientists have warned...A wall of water 164ft high... would smash into the coasts of Florida and the Caribbean islands, the forecast predicts.”

- CNN, August 29, 2001

Lituya Bay, 1958



Gnarly!

- 300 feet – Daily Mail (UK)
- 80 feet – Newsweek
- 75 feet – New York Daily News
- 60-160 feet – National Post (Canada)
- 30-70 feet – Washington Post
- 26 feet – New York Daily News

And then there's the New York Times...

“[La Palma] would likely create a wave mass never before known to written history, many times bigger than the wave at Lituya Bay. The wave would diminish a little as it crossed the Atlantic, but if it hit the Atlantic Seaboard it could be higher than the skyscrapers of Boston, New York, Washington and Miami.”

- Dennis Smith, New York Times 2004

...higher than Hollywood



A tidal wave of baloney

- Media coverage relied on authors of the study as sources.
- The authors had lost their funding to study the fault.
- Other tsunami experts were not interviewed
- The model of the collapse and wave maximized all the relevant values – speed of descent, cohesion of the block – and minimized or ignored all the confounding factors.

A “cold fusion” tsunami

This is “what we call a 'cold fusion tsunami' - it puts out more energy than it takes in from the collapse.”

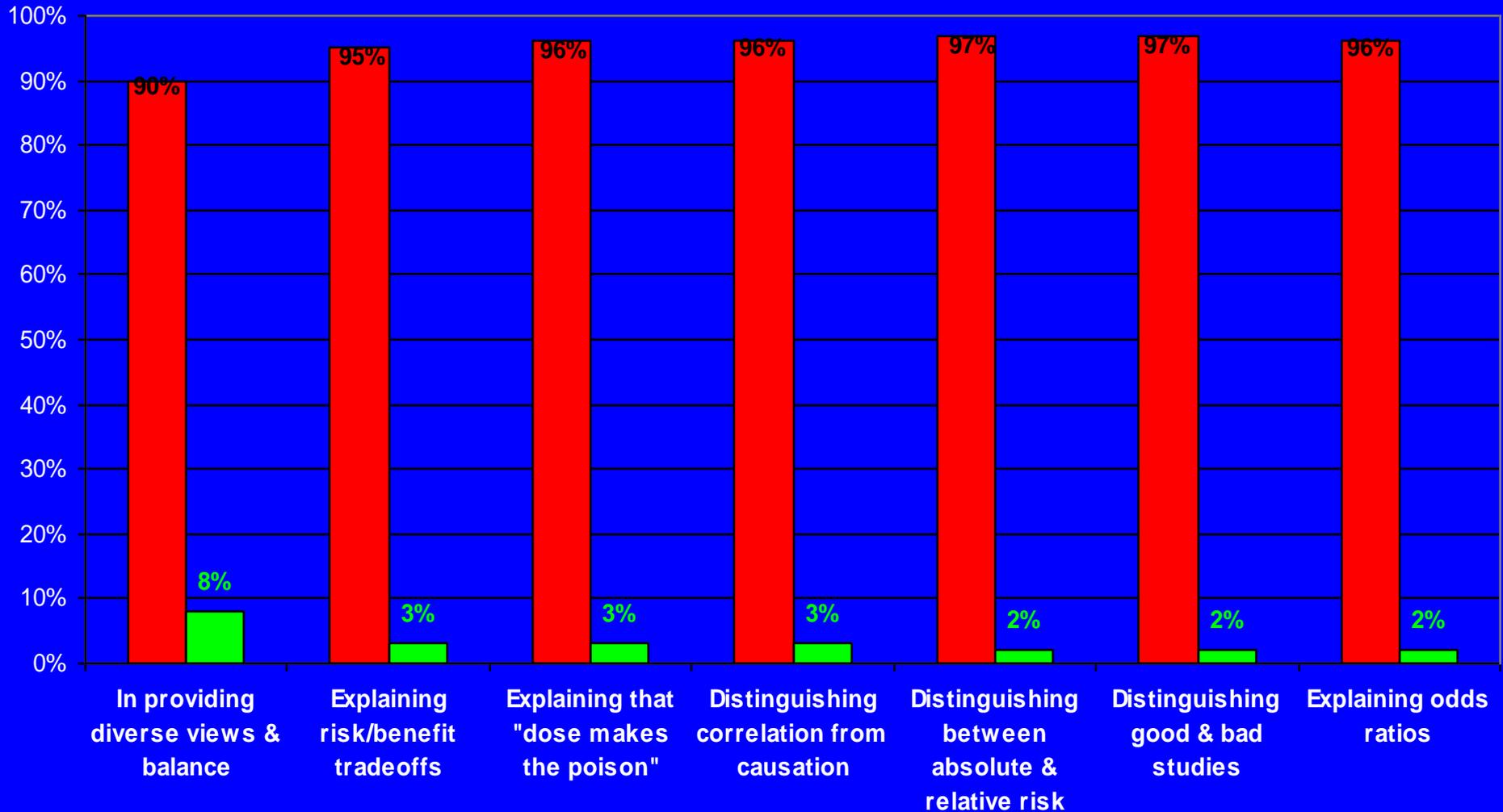
- Charles Mader, Editor of the journal the
Science of Tsunami Hazards

A history of inaccuracy

- 8.8% science stories judged error free by scientists
 - 40-59% for other subjects
 - 42 “types” of error
 - Lack of methodological detail worst error
 - Lack of context – earlier research on issue ignored
- Tankard and Ryan, 1974

How SOT Members Rate the Accuracy of the Media's Reporting on Certain Scientific Issues and Principles

Percentage Rating Poorly/Well



POORLY

WELL

What the public thinks

- 29% believe news organizations get their facts straight
- 63% say stories are inaccurate (up from 34% in 1985)
- 70% believe news orgs try to cover up mistakes
 - Pew Research Center for the People and the , 2009

Journalism is hell

“Lasciate ogni speranza, voi ch'intrate”



What makes journalism tick?

- Novelty
- Relevance
- Sourcing
- Conflict
- Rewards

What journalists avoid - numbers

- How to count
- Percentages
- Calculating risk
- Study design and statistics

The good news...

“Reasonable criticism of news coverage can now be published as easily online as the original reports, and the public expects media outlets to respond. Many editors and reporters understand that a new approach to accountability simply makes sense.”

- Scott Rosenberg, co-founder
Salon.com, MediaBugs

For example...

The Burger That Shattered Her Life

By MICHAEL MOSS

Published: October 3, 2009

Stephanie Smith, a children's dance instructor, thought she had a stomach virus. The aches and cramping were tolerable that first day, and she finished her classes.

[Enlarge This Image](#)



Ben Garvin for The New York Times

Stephanie Smith, 22, was paralyzed after being stricken by E. coli in 2007. Officials traced the E. coli to hamburger her family had eaten.

Then her [diarrhea](#) turned bloody. Her kidneys shut down. [Seizures](#) knocked her unconscious. The [convulsions](#) grew so relentless that doctors had to put her in a [coma](#) for nine weeks. When she emerged, she could no longer walk. The affliction had ravaged her nervous system and left her paralyzed.

Ms. Smith, 22, was found to have a severe form of food-borne illness caused by E. coli, which Minnesota officials [traced](#) to the hamburger that her mother had grilled for their Sunday dinner in early fall 2007.

"I ask myself every day, 'Why me?' and 'Why from a hamburger?' "Ms. Smith said. In the simplest terms, she ran out of luck in a food-safety game of chance whose

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CYRUS
NOW PLAYING

“Meat companies and grocers have been barred from selling ground beef tainted by the virulent strain of E. coli known as O157:H7 since 1994, after an outbreak at Jack in the Box restaurants left four children dead. Yet tens of thousands of people are still sickened annually by this pathogen, federal health officials estimate, with hamburger being the biggest culprit. Ground beef has been blamed for 16 outbreaks in the last three years alone, including the one that left Ms. Smith paralyzed from the waist down. This summer, contamination led to the recall of beef from nearly 3,000 grocers in 41 states.”

You are all journalists now

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