

Nina Salmon

Notes for SPHEX talk

November 2, 2023

Sinister, or just out in Left Field?

The basis for this inquiry is my own left-handedness and long-time interests in marginalization and minority responses to a dominant culture.

As a lefty, I wouldn't say that I've ever felt oppressed by right handers--but I do understand what it means to navigate a world created with someone else in mind.

Topics for tonight's discussion:

- Left in language
- Metrics of Left-handedness
- Famous and infamous lefties
- Cultural understandings of Lefties
- Lefties in the world
- Medical implications
- Some takeaways
- A hypothesis and some research

There are many negative slurs against lefties. Our contemporary use of derogatory expressions has nothing on the translation of "left" in Latin, where the word for left is *sinister* (hence the title of this talk) and only mildly better, because it's synonymous with awkward or unsophisticated instead of downright evil, is the French word, *gauche*.

In English, the word left is derived from OE *lyft*, *weak*

Causes of left-handedness

What causes it? In the 90s, a theory emerged that lefties die sooner than right-handed people. That's been debunked but several studies have pursued this line of research. One researcher (Porac 2016) examines the reasons for these premises and puts forward several theories:

1-One-type model: right is normal; left is abnormal

2-Two-type model: lefties who switched because of early damage to the left hemisphere: low injury less prone to future problems; high risk, more susceptible to "neural assault"

3- **GBG Theory:** high levels of fetal testosterone

4- **Fluctuating asymmetry:** right-handedness and left hemisphere speech is the norm;
the model predicts that about half of those who do not
develop “normally” in the early developmental stages will
become left-handed

5-**Social prejudice theory:** Left-handedness is linked to psychological and emotional disorders

(Left Handed bec of disorders or disorders bec of left-handedness and social scrutiny/pressure?)

Porac concludes that there are too many inconsistencies and mitigating factors to link left-handedness to pathologies. (She also notes a tendency of lefties to respond to surveys and data-collecting instruments at higher rates because of their special interest.) She concedes that there are links to mixed or ambiguous handedness and suggests that emerging research paradigms may help clarify the many conflicting pieces of research that exist to this point.

(Three major studies looking at links to schizophrenia--no links to left-handedness, but one did find links to mixed-handedness/ambidextrous.)

Additional studies:

Nat'l Geographic--19th century rates (US) of left-handedness @ 2%--collected data from over 1 million participants, ages 10-86--increased to present rate of @ 10% beginning in the last decade or so of the century. Researchers came to two possible conclusions: lefties die younger so weren't alive for the survey (see 1990s study); societal pressure.

833 schoolchildren in
New Jersey, 36 of whom (4.32%; SE 0.71%) were left-handed.

Burt--5000 also @10--4.8

What is left-handedness?

Measures of handedness (chart in slides)

Table 1.1: Clare Porac. *Laterality: Exploring the Enigma of Left-Handedness*. Academic Press, 2016.

What causes left-handedness?

Many studies, but little that is definitive. Some variables include birthweight (lefties skew slightly to lower birth weight); age of mother--smoking or non smoking; breast fed or not; month of birth (testosterone?)(great variability among studies)

Cultural

Handshake

Associations with evil

Associations with cleanliness

Wedding rings are traditionally worn on the left hand, at the 3rd ring finger.

Ancient Greeks believed that a “lover’s vein” connected the fourth finger on the left hand to the heart. <https://facts.net/left-handed-facts/>

Left hand viewed as the hygiene hand, therefore dirty

Approximately 17.39% of U.S. presidents have been left-handed.

This percentage does not include Thomas Jefferson, who used his left hand following an injury and was effectively ambidextrous. Woodrow Wilson wrote legibly, even well, with his left hand following a stroke.

Medical

Links between left-handedness and ADHD, autism...

Better health overview

Creativity

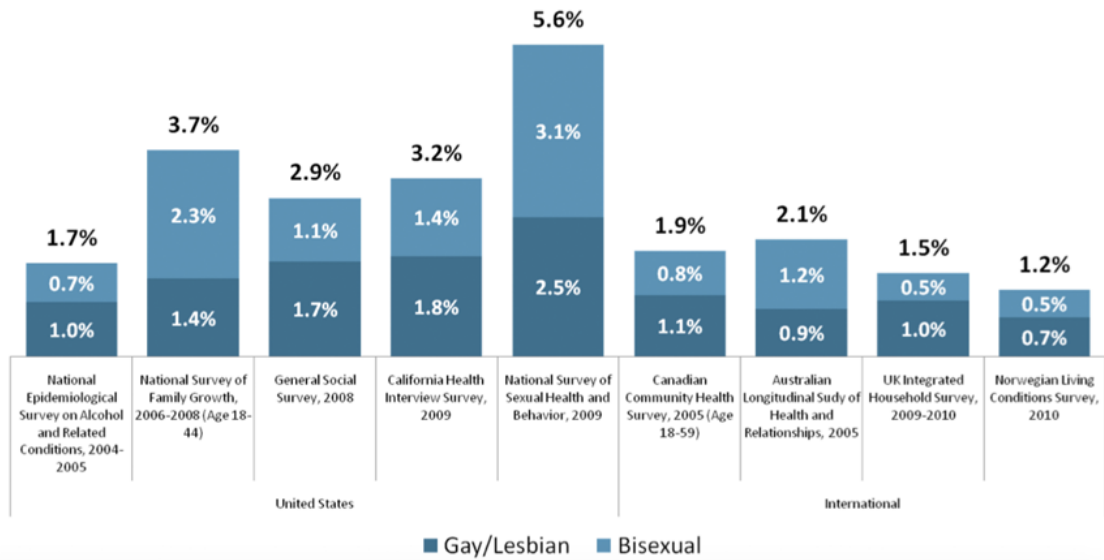
Take aways

Lefties notice lefties

A way to understand privilege that is not politically charged. Lefties operate in a right-handed world. They are born into left-handedness and are a minority.

Think also about homosexuality--like left-handedness, it’s not linked to genetics

Figure 1. Percent of adults who identify as lesbian, gay, or bisexual.



How Many People are Lesbian, Gay, Bisexual, and Transgender? (April 2011)
THE WILLIAMS INSTITUTE

Hypothesis: SPHEX members will exceed the 10% average. (Proven correct: 37% of those attending were left-handed or ambidextrous.)

References

McManus, I. C. *Right Hand, Left Hand : the Origins of Asymmetry in Brains, Bodies, Atoms, and Cultures*. Harvard University Press, 2002.

McManus, I. C., et al. "Science in the Making: Right Hand, Left Hand. III: Estimating Historical Rates of Left-Handedness." *Laterality (Hove)*, vol. 15, no. 1-2, 2010, pp. 186–208, <https://doi.org/10.1080/13576500802565313>.

Porac, Clare. *Laterality: Exploring the Enigma of Left-Handedness*. Academic Press 2016. *ProQuest*. <https://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=4307811>. Accessed 9 Oct. 2023.

And also...

ChatGpt (sports list)

Images from Shutterstock and other royalty free resources.

Internet Movie Database (IMDb)

Lots of Googling

Lott, Jr., James. *Lefthanded with A Lott to Say*. podcast. JLJ Media. 2020-23.

Slides:

Sinister, or just out in left field?

11/13/2023
November 2, 2023

Possibly in this order, but maybe not...

- Left in language
- Medical implications
- Metrics of Left-handedness
- Famous and infamous lefties
- Cultural understandings of Lefties
- Lefties in the world
- Some takeaways
- A hypothesis

Left as 'other' ...

- Out in left field
- Two left feet
- Left-handed compliment

Insults in many languages...

Lyft (weak)	Old English
sinister	Latin
gauche	French
mão esquerda	Portuguese
vånsterprassel (adulterous)	Swedish
vasemällä (defective)	Finnish

TABLE 1.1 Example of Handedness Measures

Hand preference measures	Hand performance measures
Writing preference (ambidextrous)	Hand preference questionnaire
Shoe	Clasp button
Write	Pick up book
Throw ball	Open in right hand
Use scissors	Use publication phone
Hammer nail	Throw golfball
Thread needle	Use stapler

Theories on left-handed pathologies

- One-type model: right is normal, left is abnormal
- Two-type model: lefties who switched because of early damage to the left hemisphere; low injury rate prone to future problems; high risk, more susceptible to "traumatic assault"
- CGC Theory: high levels of fetal testosterone
- Fluctuating asymmetry: right-handedness and left hemisphere speech is the norm; the model predicts that about half of those who do not develop "normally" in the early developmental stages will become left-handed
- Social prejudice theory: Left-handedness is linked to psychological and emotional disorders

A minority: the numbers

NJ school children (Parsons, 1924)
6.3%

London school children (Burt, 1937)
4.8%

National Geo survey (Gilbert & Wysocki, 1946)
10.0% (2%)

1990s (up to 10%)
Repeat studies remain constant @ 10-15% of the population is left-handed

Some facts about left-handedness

- About 10% of the population
- Slightly higher of men
- Higher wages* (c.195)
- Links to creativity

*male lefties only

Some famous lefties

THE MOST INTERESTING MAN IN THE WORLD

Albert Einstein
Leonardo da Vinci
Marie Curie
Ben Franklin
Lewis Carroll
Bill Gates
Ruth Bader Ginsburg
Mark Zuckerberg

A few of the celebrity lefties

U.S. Presidents - handedness, not political persuasion

James A. Garfield
Herbert Hoover
Harry S. Truman
Gerald Ford
Ronald Reagan
George H.W. Bush
Bill Clinton
Barack Obama

*all three candidates in 1992
**John McCain in 2008

Left-handed Musicians

Sergei Rachmaninov

Mozart, Beethoven, and Carl Philipp Emanuel Bach were possibly lefties.

Sinister, or just out in left field?

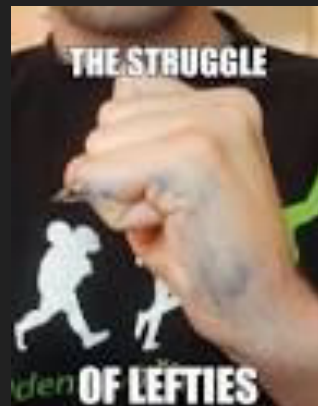
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Left as 'other'...

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Insults in many languages...

<i>Lyft</i> (weak)	Old English
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Theories on left-handed pathologies

- | | |
|---------------------------|--|
| 1-One-type model | right is normal; left is abnormal |
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| 3- GBG Theory | high levels of fetal testosterone |
| 4- Fluctuating asymmetry | right-handedness and left hemisphere speech is the norm; the model predicts that about half of those who do not develop “normally” in the early developmental stages will become left-handed |
| 5-Social prejudice theory | Left-handedness is linked to psychological and emotional disorders |

TABLE 1.1 Examples of Handedness Measures

Hand preference measures		Hand performance measures	
Strong preference (consistent)	Weak preference (inconsistent)	Hand strength	Hand skill
Draw	Comb hair	Grip strength	Place pegs in holes rapidly
Write	Pick up book		
Throw ball	Screw in light bulb	 RIGHT HAND • WRITER • ARTIST • GREATEST DEXTERITY & STRENGTH	Dexterity with fingers or tweezers
Use scissors	Use pushbutton phone		Tap fingers rapidly
Hammer nail	Wave goodbye	 LEFT HAND • HAS TROUBLE WITH DOOR KNOBS • TRIES HIS BEST	Maneuver items in rapid sequence
Thread needle	Pet dog/cat		Mark dots rapidly

A minority: the numbers

NJ school children (Parson, 1924)

4.32%

London school children (Burt, 1937)

4.8%

National Geo survey (Gilbert & Wysocki, 1986)

1800s (2%)

1900s (up to 10%)

Repeat studies remain constant @ 10-12%

of the population is left-handed



Some facts about left-handedness

- ❖ About 10% of the population
- ❖ Slightly higher % of men
- ❖ Higher wages* (4-15%)
- ❖ Links to creativity

*male lefties only

If the right side of the brain controls the left side of the body,

Mathematics		Emotional Expression
Language		Spatial Awareness
Lists		Creativity
Logic		Music
Writing		Imagination
Scientific Skills		Whole Picture

then only left-handers are in their right minds!

August 13th www.lefthandersday.com #lefthandersday 

Some famous lefties



Albert Einstein
 Leonardo da Vinci
 Marie Curie
 Ben Franklin
 Lewis Carroll
 Bill Gates
 Ruth Bader Ginsburg
 Mark Zuckerberg

A few of the celebrity lefties



U.S. Presidents - handedness, not political persuasion

James A. Garfield
 Herbert Hoover
 Harry S. Truman
 Gerald Ford
 Ronald Reagan
 George H.W. Bush
 Bill Clinton
 Barack Obama



*all three candidates in 1992
 **John McCain in 2008

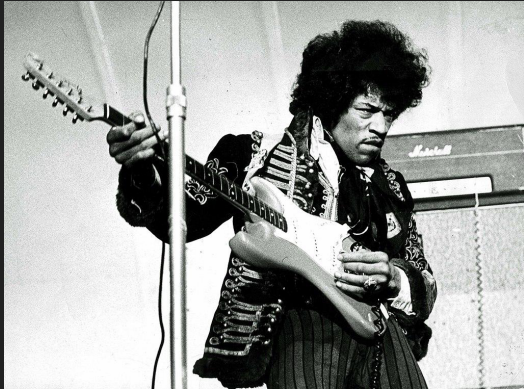
Left-handed Musicians

Sergei Rachmaninov

Mozart, Beethoven,
 and Carl Phillip
 Emanuel Bach were
 possibly lefties.

Wachet auf ruft uns die Stimme
 BWV 645 (Schüler-Choräle)
 J. S. Bach (1685-1750)

Paul McCartney
 Jimi Hendrix
 Kurt Cobain
 David Bowie
 Coco Montoya
 Albert King
 Otis Rush



Elizabeth Cotten
 Bobby Womack
 Paul Simon
 Phil Collins
 Malina Moya
 Justin Bieber
 Miley Cyrus

Athletes

“Lefties make up one-third of Major League Baseball players, 20 percent of the top-ranked boxers, and 20-25 percent of ... fencers.”

Rafa Nadal (Tennis), Diego Maradona (Soccer), Ken Griffey Jr. (Baseball), Sandy Koufax (Baseball), Greg Rusedski (Tennis), Phil Spector (Music), Sir Garfield Sobers (Cricket), Bob Gibson (Baseball), C. J. Van Zant (Soccer), Phil Esposito (Hockey), (Cricket), . M. (Baseball), Na (Baseball), (Baseball), Le (Baseball), Odeh Beckham Jr. (American Football), Luck (American Football), Robert Hood (Baseball), Brett Gardner (Baseball), Barry Lutz (Baseball), Jason Pierre-Paul (American Football), Adam Gotsis (Australian Rules Football), and Nicole Powell (Basketball), Monica Seles (Tennis)

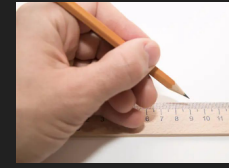
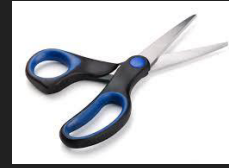
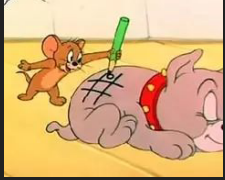
TV lefties



Not all were the good guys...

- Jack the Ripper
- Billy the Kid
- Adolf Hitler
- Osama bin Laden

Fictional lefties



Life isn't always easy for lefties in a right-handed world



Some takeaways

- ❖ we don't yet know all the things
- ❖ how we think about privilege
- ❖ how we search for genetic/medical understanding of sexuality

With lingering questions about marginalization and oppression...

A hypothesis...

References

McManus, I. C. *Right Hand, Left Hand : the Origins of Asymmetry in Brains, Bodies, Atoms, and Cultures*. Harvard University Press, 2002.

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Random blogs, memes, places I didn't write down, even wikipedia