

‘They squint, they stammer, they shuffle and shamble, they flounder like seals out of water’: Demonized for being different, left-handers are DNA puzzles

Being left-handed can be devilishly hard. In 1937, an educational psychologist whose work was later discredited [wrote of many left-handers](#) that “they squint, they stammer, they shuffle and shamble, they flounder like seals out of water.”

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Once we put aside the bigotry, we are left with interesting questions. Why is it that a small subset of the population prefers to use their left hand for manual tasks, and why do we even show a preference in the first place?

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[U]sing massive data sets issued from the UK Biobank, the International Handedness Consortium, and the direct-to-consumer service 23andMe, a team performed [the largest DNA analysis for left-handedness](#). They found not one, not two, but 41 spots in the DNA that were associated with the trait. Handedness, like asthma and height, turns out to be a polygenic trait: many genes are involved and each makes a tiny contribution.

However, this is not the end of the story. It turns out that it's not just the DNA that matters, but also what's sitting on top of it. Epigenetic marks can temporarily silence bits of DNA and are generally involved in regulating when DNA is active, and [these marks may have an influence on handedness as well](#).

Scientists have only just begun to understand the complex underlying biology of this very basic trait, and shedding light on left-handedness can hopefully blow away the superstitious and damaging myths that have long tainted people's perceptions.

[This is an excerpt. Read the original post here.](#)