

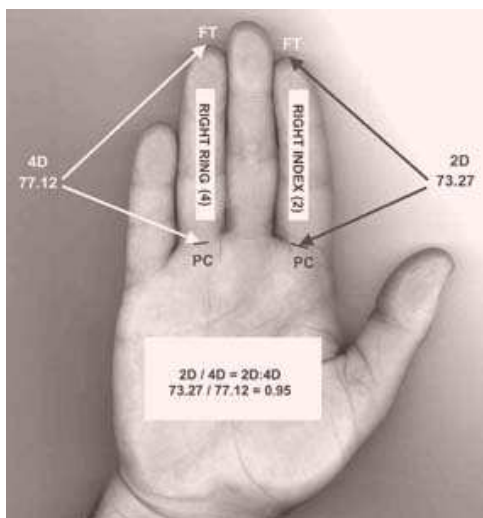
# The T-Factor: Finger ratios and success in a talent show

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There has been a proliferation of television talent shows in recent years. Many focus on one form of ability such as singing (e.g. Fame Academy, Pop Idol, Pop Star – The Rivals, The X Factor) or dancing (e.g. So You Think You Can Dance, Strictly Come Dancing) while others include many different types of act (e.g. Britain’s Got Talent). While in later rounds it is clear that many of the contestants genuinely have talent, it is equally clear that many people who put themselves through initial auditions do not have talent. Often this fact is in contrast to the belief many have in their ability.

There are likely to be many factors that influence contestants’ abilities including practice, determination, co-ordination, even ability to withstand the effects of nerves. In this study we explored whether there are biological underpinnings to talent, specifically the effect of exposure to testosterone while in the foetus.

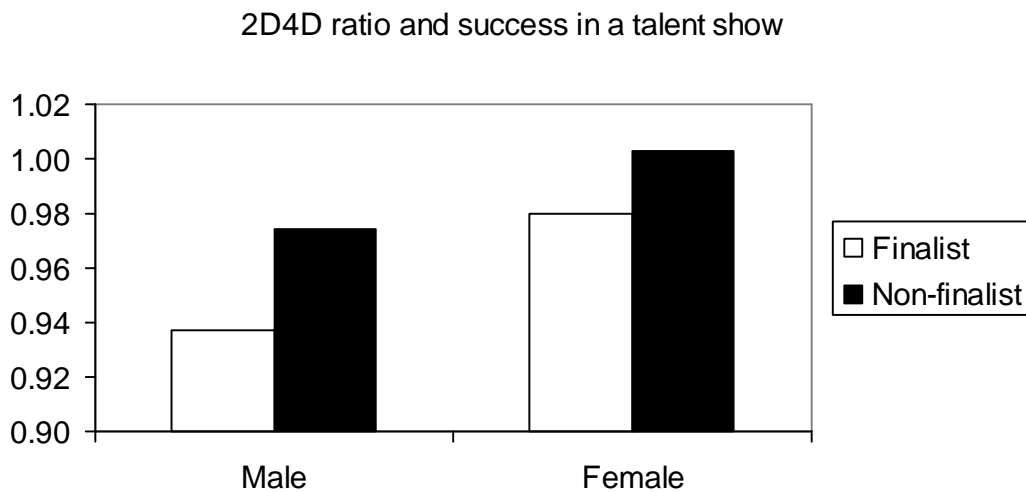


2D:4D ratio is the ratio of the lengths of the second and fourth fingers of each hand and is an indicator of the level of exposure to testosterone during the first 12 weeks of foetal development. A low ratio indicates exposure to high levels of testosterone and a high ratio indicates exposure to low levels of testosterone with men typically having a lower ratio than women.

A low 2D4D ratio (higher testosterone) is related to greater ability in a number of domains such as rank within an orchestra (which is dependent on musical ability) and women’s ratings of the quality and attractiveness of men’s dancing. This study explored differences in 2D4D ratio in contestants in a talent show to explore whether contestants who got through to the final differed from those who did not.

All entrants in a talent show to mark the opening of The Forum, a new entertainment venue at the University of Hertfordshire, were approached: 14 singing acts, 6 dance acts, 2 jugglers, 2 rap acts, 1 comedian and 1 performance poet. Of the 26 acts recruited, 8 made it into the final (4 solo acts and 4 group acts).

Finalists had significantly lower 2D4D ratios (indicating higher levels of testosterone) than non-finalists. The figure below shows that men had lower ratios (more testosterone) than women. However, the effect of 2D4D ratio on success in the talent show was found in both men and women.



Although we also tried to identify what aspects of performance it was that judges saw that might relate to 2D4D ratio (e.g. originality, perceived confidence, charisma etc) this was largely unsuccessful. In other words, while judges' ratings were clearly influenced by the amount of testosterone people were exposed to during foetal development, it is not clear what it was they were seeing that influenced their ratings.

Maybe it really does just come down to "the X-factor" where no-one knows what "it" is but we know "it" when we see it. Nevertheless, "it" is dependent to some extent on the amount of testosterone we were exposed to before we were even born.