

# New evidence that humans choose their partners through assortative mating

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Credit: AI-generated image ([disclaimer](#))

A team of Australian researchers have published a new paper that argues people choose their life partners through a form of assortative mating, which is having a distinct impact on the evolution of the human genome.

It is an accepted wisdom that people will eventual pair off and marry

someone who is very similar to themselves – similar levels of education, physical attractiveness, height, weight etc. The new study, published in the journal *Nature Human Behaviour* suggests that this really isn't an accident, that an educated person won't marry another educated person due to the fact they socialise with educated people, but because they actively seek them out.

This phenomenon, called assortative mating, is a mating pattern and a form of sexual selection in which individuals with similar traits mate with one another more frequently than would be expected under a random mating pattern. It has been documented in nature, such as when brightly coloured eastern bluebirds choose similarly brightly coloured mates, whilst the duller coloured birds tend to stick with each other. Another example is the Japanese common toad, where they are more likely to choose a mate of a similar size. Assortative mating is beneficial because it increases relatedness in families and can help offspring survive better, so long as the trait under selection, such as a larger size, continues to be beneficial.

The Australian team from the University of Queensland in Brisbane utilised large databases that include information on human physical and genetic traits, homing in on a person's genetic markers for traits such as height and [body mass index](#) (BMI) in order to predict the corresponding height and BMI of their partner. They theorised that if the underlying genetic traits suggested that an individual would be tall, their partner should also be tall.

Comparing the actual heights of 24 000 pairs of heterosexual married couples of European ancestry, they did indeed find a strong statistical correlation between people's genetic markers for height and the actual height of their partner. They also found a weaker but still statistically significant correlation between people's genes for BMI and the actual BMI of their partners.

The researchers didn't just look at physical traits, they also examined assortative mating in other traits, such as years in education. For this, they turned to a British database and examined 7 780 couples. They looked for concordance amongst partners in [genetic markers](#) previously linked to years of education and found an impressively high correlation. Matthew Robinson, a postdoc who led the study, argues that this is because people actively seek out mates who have similar interests, which are associated with an individual's level of education.

In their published paper, the research team argues that the choice of mate 'affects the genomic architecture of traits in humans', boosting the odds that a particular trait will be passed on to children. This is important as it has implications for genetic models that predict how likely it is that members of a particular family will inherit a certain trait, whether physical (such as [height](#)) but also a particular disease, such as mental disorders or cancer.

Moving forward, Robinson hopes to use his method to test more couples for other similarities that could better inform the development of [genetic models](#). He even wants to apply his method to his own partner, commenting: 'We both have PhDs and we're both tall. We fit the bill!'

Provided by CORDIS

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