

Sociological study finds genes play a significant role in shaping our cultural tastes

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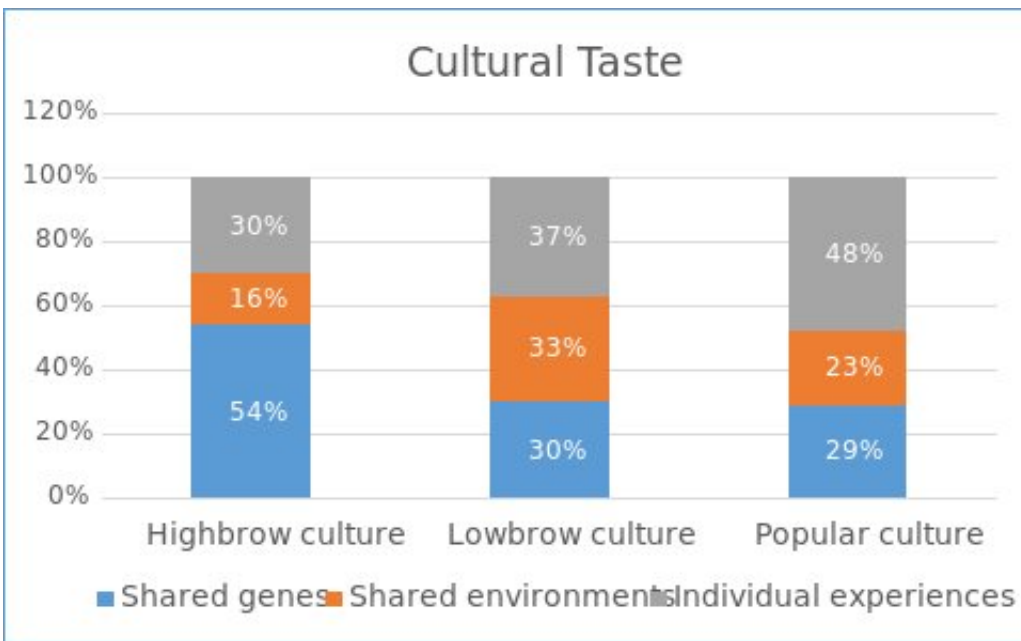


Figure 1: Factors behind cultural preferences (percent) The figure shows the extent to which genetic inheritance, socialization in the family, or factors outside the family explains variance in cultural preferences. While the exact numbers contain some statistical uncertainty, the overall finding is that the social imprint in the family has the least significance. Credit: University of Copenhagen

Do you like opera and classical music? Would you rather go to pop concerts? Or do you belong with those who are all-consuming when it comes to music, books, movies, and other cultural manifestations?

Regardless of taste and pleasure, our specific cultural preferences do not arise out of the blue but are formed in the encounter with our surroundings. But do we also have an innate tendency to prefer some forms of culture rather than others? A genetic predisposition that pushes us in certain directions—towards Wagner, Adele or something completely different?

Yes, a new study published in *Sociological Science* concludes. The study estimates the extent to which cultural preferences and activities are rooted in our [genes](#) or created by the environment. And the bottom line is that the genetic imprint is significant, Assistant Professor Stine Møllegaard from the Department of Sociology, UCPH, explains:

"It has been the common understanding in sociology that parents exclusively transfer their cultural preferences to their children through socialization and [social interaction](#). Our study paints a different picture," says Møllegaard, who has conducted the study in collaboration with Professor Mads Meier Jæger.

"We show that there is a significant genetic component to the overall cultural consumption. Within families, the cultural preferences for highbrow, lowbrow or popular culture are primarily transmitted by shared genes. That said, the individual experiences we encounter outside the family through friends, media and so on are also of great importance. So, it is not a question of either genetic heritage or the environment. It is both."

Twin study maps the importance of genes

In the study, the researchers estimate the degree to which the variation in cultural preferences and cultural participation can be explained by [genetic predisposition](#), socialization in the family or social influence outside the family.

The study did so by conducting a survey among 1,200 Danish twin pairs, 466 of whom were monozygotic and 734 dizygotic, mapping their taste for and participation in 12 cultural activities. Twin studies are a well-established method to uncover the relative influences of genes by comparing [monozygotic twins](#) who are genetically identical and [dizygotic twins](#) who share 50 percent of their segregating genes.

The study finds that 54 percent of the variation in the survey respondents' tastes for "highbrow culture" (like classical music, plays, ballet and art) can be attributed to genetic disposition. Only 16 percent is due to social influences from within the family. The remaining 30 percent is due to external social factors (Figure 1).

The factors behind a taste for popular culture (e.g. cinema and amusement parks) are more evenly distributed, whereas interest in popular culture such as rock/pop and stand-up comedy is mainly due to external social influence outside the family.

Looking at the respondents' actual cultural participation, the social impact within the family is even smaller. It is only in relation to participation in highbrow culture that the study finds a weak [social influence](#) through the family.

A similar picture emerges when the study tests the significance of genes in our development of wide musical and literary tastes across genres. Again, the genetic factor is significant, while there is no measurable social impact from the family environment (see Figure 2).

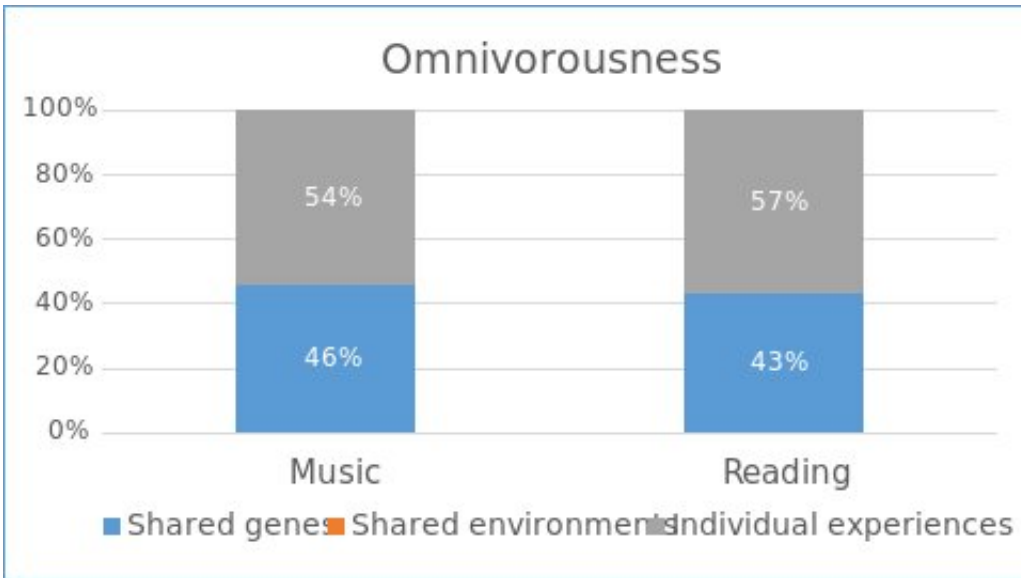


Figure 2: Factors behind broad cultural consumption (percent) The figure shows the factors behind a broad taste for music and reading material across genres. Note that only shared genes and social influence outside the family have a measurable effect on whether we are 'omnivorous' cultural consumers. Credit: University of Copenhagen

Do we have opera-friendly genes?

But how do our genes leave their mark on our cultural taste and behavior?

In the study, the researchers suggest that the heritable genetic influence on [cognitive skills](#) and personality traits lays the foundation for various cultural preferences. We may have individual predispositions which translate into taste for and participation in specific cultural activities and genres in our encounters with different environments.

If that is the case, there is no such thing as an "opera gene," but we might have "opera-friendly" genes. It requires patience to see a four-hour

opera, which a restless person does not have—to give one example. Similarly, one would expect outgoing people to be more open to a wide range of cultural genres than less curious people.

However, the researchers emphasize that the study cannot say anything certain about how genes precisely influence cultural taste. Still, the impact of genes on cultural behavior is an important finding, Stine Møllegaard believes:

"It could have importance for how we disseminate culture in different social contexts. It is not enough just to expose people to cultural interventions—such as to give a [family](#) an annual pass to an art gallery. The individual must have the right prerequisites, like cognitive abilities, patience or curiosity. Otherwise, such interventions will be of little use."

Liberating knowledge

It sounds restrictive, but Stine Møllegaard also sees a liberating aspect about the fact that the genetic inheritance gives us a certain predefined framework:

"There will be some who, regardless of their social background, are predisposed to cultural interests and who simply need to be exposed to culture. And as the influence from individual experiences still means a lot, there is also a chance that it will happen," she says.

"Furthermore, it is a consolation for the parents that they do not bear full responsibility for their children's cultural behavior. You cannot just sign your children up for a reading course and then expect them to become literary historians—to put it bluntly. Even in the field of [culture](#), we need to consider that we are predisposed differently."

Stine Møllegaard is now looking forward to seeing how this message will

be received in the field of sociology, where Pierre Bourdieu and other leading theorists have emphasized the social and cultural factors strongly.

"We have met resistance before, and when I ask my students if genes are important for our behavior, many respond 'not at all' and become very quiet when I state the opposite. But also in sociology, there is a growing acceptance that genes matter. Moreover, we do not claim that everything is controlled by genes. We simply say that it is a bit naive to claim that all children are born the same."

More information: Mads Jæger et al, Where Do Cultural Tastes Come From? Genes, Environments, or Experiences, *Sociological Science* (2022). [DOI: 10.15195/v9.a11](https://doi.org/10.15195/v9.a11)

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