

# Research demonstrates genetically diverse crowds are wiser

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A new study led by Dr. Meir Barneron from the Hebrew University of Jerusalem reveals that genetically diverse groups make more accurate collective judgments compared to genetically homogeneous groups.

The research, [published](#) in *Personality and Individual Differences*, provides new insights into the origins of the 'wisdom of crowds' phenomenon, emphasizing the role of genetic diversity in enhancing [collective intelligence](#).

Past studies have suggested that combining individual judgments can improve accuracy, especially when individuals differ in background, education, and demography. However, Dr. Barneron's research takes this a step further by proposing that genetic diversity itself contributes significantly to the accuracy of combined judgments.

The study involved 602 identical and fraternal twins, who participated by making numerical judgments in pairs. These pairs consisted either of co-twins (related pairs) or non-related individuals (unrelated pairs).

The results revealed that judgments made by unrelated (i.e., heterogenous) pairs were more accurate than those made by related (i.e., homogeneous) pairs. Theoretically, however, this finding could emerge either from environmental or genetic factors.

In order to distinguish between environmental and genetic factors, the study compared the performance of related and unrelated pairs, separately among identical and fraternal twins.

This comparison is relevant as genetic influences make [identical twins](#) more similar to one another compared to fraternal twins, because the former share virtually 100% of their genetic variance, whereas fraternal twins share, on average, 50% of the genetic variance.

The findings revealed that the superior performance of unrelated versus related pairs was evident for the identical twins. This underscores the impact of genetic relatedness on collective [judgment](#).

Dr. Barneron's research is the first empirical demonstration of the benefits of genetic diversity for collective judgments. The findings suggest that genetic diversity enhances the collective cognitive abilities of groups, providing a deeper understanding of how diverse crowds can achieve wiser outcomes. By uniquely highlighting the genetic aspect, this research adds a new dimension to the 'wisdom of crowds' phenomenon.

"These findings highlight the significant impact genetic diversity can have on collective decision-making, underscoring the importance of embracing diversity in all its forms to enhance our [cognitive abilities](#) and tackle complex challenges more effectively," said Dr. Meir Barneron, Hebrew University

Utilizing a sample of identical and [fraternal twins](#), the study effectively isolates genetic diversity, allowing for a clear comparison between genetically homogeneous and heterogeneous groups, and providing robust evidence for the hypothesis.

This [empirical evidence](#) supports the broader theory that diversity enhances decision-making, with significant implications for organizational management. It suggests that diverse teams may be better equipped to tackle [complex problems](#) and innovate effectively.

Moreover, the research contributes to our understanding of genetic diversity as a fundamental aspect of biodiversity, highlighting its crucial role in adaptation, resilience, and the long-term survival of populations in the face of environmental changes.

**More information:** Meir Barneron et al, Genetically-diverse crowds are wiser, *Personality and Individual Differences* (2024). [DOI: 10.1016/j.paid.2024.112823](#)

Provided by Hebrew University of Jerusalem

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