

NAME OF PRESENTING AUTHOR: José Juan Morosoli

EMAIL ADDRESS OF PRESENTING AUTHOR: Jose.MorosoliGarcia@qimrberghofer.edu.au

## Genetic prejudice as a cognitive bias: Evidence from a multivariate twin study

José J. Morosoli<sup>1,2</sup>, Lucía Colodro-Conde<sup>1</sup>, Fiona K. Barlow<sup>2</sup>, Sarah E. Medland<sup>1</sup>

<sup>1</sup> Psychiatric Genetics Group, QIMR Berghofer Medical Research Institute, Brisbane, Australia

<sup>2</sup> School of Psychology, University of Queensland, Brisbane, Australia

KEYWORDS: prejudice, need for closure, genetic determinism, moral values, twin study

### ABSTRACT:

Learning about someone's genetic predisposition could prompt prejudiced behaviors in others. For example, 20-25% of our survey participants declare that they would *not* choose a partner who has a strong genetic predisposition for depression. Previous research in social psychology suggests that prejudiced behavior could stem from an aversion towards ambiguity in social contexts. Moreover, genetic deterministic thinking has also been associated with both need for firm answers and prejudice, as well as with conservative ideologies. Need for certainty has been proposed as the general cognitive disposition underlying this type of categorical thinking. It has also been hypothesized that need for certainty, prejudiced thinking, and conservatism may be the product of overreliance on certain "innate" heuristics (i.e., mental shortcuts that allows make judgments quickly). Arguably, this could also be the case for genetic deterministic thinking. In the present study, we surveyed 3,974 Australian twins on genetic deterministic thinking, reliance on heuristics, need for certainty, conservative values, and attitudes towards partners with strong genetic predisposition for depression. Using a multivariate twin design, we tested the hypothesis of an innate cognitive mechanism underlying all five measures. Heritability was low to moderate ( $H^2 = 16-54\%$ ). Phenotypic correlations between measures were low to moderate ( $r = 0.01-0.20$ ). Genetic determinism showed little genetic influence and its genetic correlation with cognitive measures was non-significant. Genetic correlations were significant between need for certainty, conservatism, and heuristic thinking, supporting the hypothesis of shared innate mechanisms. Implications for research in prejudice and public understanding of genetics will be discussed.

GRANT SUPPORT: This study was funded by the John Templeton Foundation (Genetics and Human Agency Project).