

# Twin Study Shows that Link between Harsh Parenting and Youth Antisocial Behavior is Environmental, Not Genetic, in Origin

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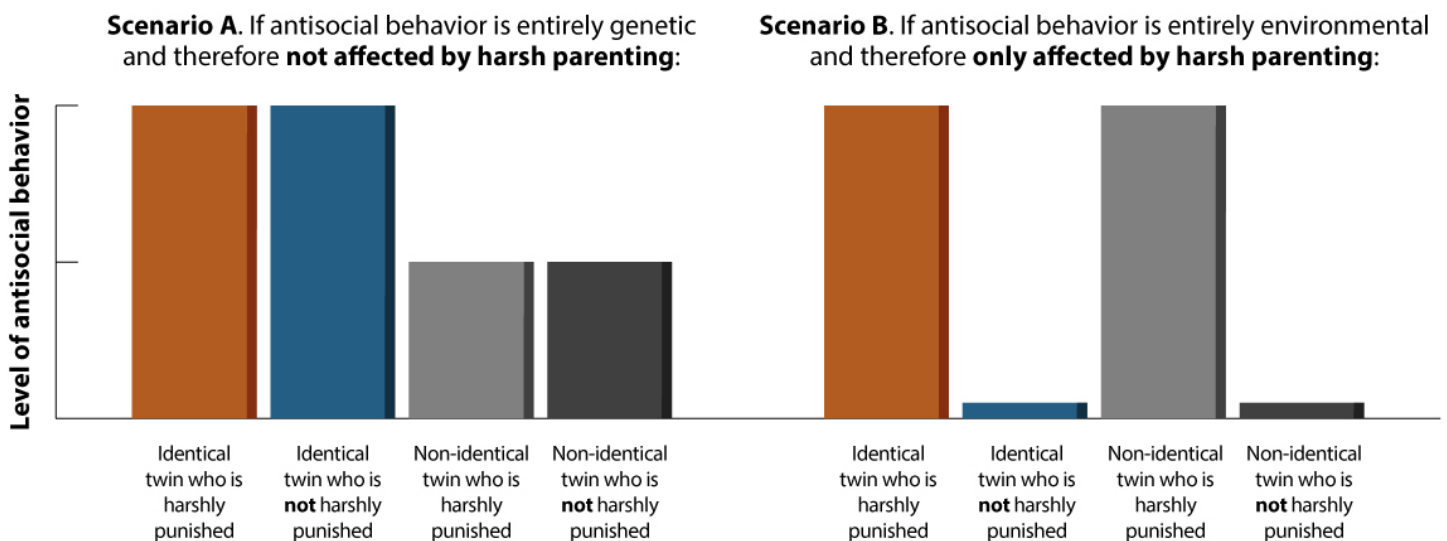
## INTRODUCTION

Harsh parenting, and especially hitting children in anger, has been linked to children’s antisocial behavior, such as lying, stealing, or displaying aggressive behavior. However, while these relationships have consistently been shown across multiple studies, they have not been definitively shown to be the result of environmental (“nurture”), rather than genetic (“nature”), factors. That is, it might be possible that genes shared by parents and children could predispose parents to treat their children harshly and predispose children to exhibit antisocial behavior.

Studying twins can help researchers disentangle genetic and environmental effects. Identical twins (also known as monozygotic twins because they develop from one fertilized egg) are genetically identical and differ only in the ways that they are exposed to different environmental factors, such as differential parenting or unique peer groups. In fact, it is not uncommon for identical twins to experience different levels of harsh parenting, with one twin often being more likely than the other twin to be yelled at, hit in anger or otherwise treated harshly. Therefore, if one identical twin experiences harsher parenting than her co-twin and goes on to exhibit higher rates of antisocial behavior than her co-twin, then the likely explanation is that the between-twin differences in harsh parenting are the cause of the between-twin differences in antisocial behavior.

In this study, the authors studied both identical and non-identical twins (also known as dizygotic twins because they develop from two fertilized eggs and thus share approximately 50% of their genetic material) from the Michigan State University Twin Registry (ages 6-15 years). Including both types of twins allowed a further examination of nature vs. nurture. If the association between harsh parenting and antisocial behavior is genetic, then identical twins would have identical levels of antisocial behavior. On the other hand, non-identical twins would only be 50% likely to have the same levels of antisocial behavior because they share roughly 50% of their genes (see *Figure*, Scenario A). However, if the association is entirely environmental, then the more harshly treated twin would exhibit more antisocial behavior than their co-twin whether or not they were identical or non-identical twins (see *Figure*, Scenario B).

## Two hypothetical associations—one entirely genetic, the other entirely environmental—between harsh parenting and children’s antisocial behavior for identical and non-identical twins



## KEY FINDINGS

- ▶ Results of the study matched Scenario B: There were significant differences in antisocial behavior among twin pairs based on whether they had been harshly punished.
- ▶ The harshly punished identical twins were more similar to non-identical twins who had been harshly punished than they were to their own co-twins who had not been harshly punished.
- ▶ That is, sharing 100% of genes did not explain levels of antisocial behavior for identical twins. Instead, how much they were hit or yelled at – the environment they were exposed to – predicted their levels of antisocial behavior.

## POLICY IMPLICATIONS

This American Academy of Pediatrics, and the American Psychological Association have called on parents to stop using physical punishment, and 60 countries have banned all physical punishment of children. This study provides strong evidence that harsh parenting causes harmful effects among children and supports further efforts to prevent antisocial behavior by decreasing the use of harsh parenting techniques. The finding also emphasizes that physicians and public health officials should work to change attitudes and behaviors related to harsh parenting in order to promote the health and wellbeing of children.

## REFERENCE

Burt, S.A., Clark, D.A., Gershoff, E.T., Klump, K.L., & Hyde, L.W. (2020). Twin differences in harsh parenting predict youth antisocial behavior. *Psychological Science* 32(3): 395-409.

## SUGGESTED CITATION

Burt, S.A., Clark, D.A., Gershoff, E.T., Klump, K.L., & Hyde, L.W. (2021). Twin study shows that link between harsh parenting and youth antisocial behavior is environmental, not genetic, in origin. *PRC Research Brief* 6(4). DOI: 10.26153/tsw/12055

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## ACKNOWLEDGEMENTS

This research was supported by R01-MH081813 from the National Institute of Mental Health (NIMH) and R01-HD066040 from the Eunice Kennedy Shriver National Institute for Child Health and Human Development (NICHD) (to SAB). The content is solely the responsibility of the authors and does not necessarily represent the views of the National Institutes of Health. Preparation of this manuscript was supported by the National Science Foundation (Award 1519686 to ETG) and an NICHD award to the Population Research Center at the University of Texas at Austin (P2CHD042849). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Institutes of Health or the National Science Foundation. The authors thank the staff of the twin projects for their hard work, and thank the families who participated in these twin studies for sharing their lives with researchers.