

Twin Facts

- New Jersey, Massachusetts and Connecticut have the highest rate of twin births in the United States, with an average of 4 out of 100 live births in these states resulting in twins!
- If a fertilized egg splits later than usual, identical twins' appearance and other traits can mirror each other.
- About 1 in 285 pregnancies result in identical twins.
- 22% of twins are left handed.
- By studying birth and death records between 1800 and 1970, researchers at the University of Utah found that mothers of twins tended to live longer than mothers that didn't have twins.
- Mei Lun and Mei Huan, the only pair of giant panda twins in the United States, turned three years old on July 15th! The pair celebrated with frozen birthday "cakes."

Introduction

Welcome to the 11th edition of the Michigan State University Twin Registry (MSUTR) Newsletter! This edition includes research findings from our studies, articles on twins in the Olympics and in film, and information about participating in our current twin studies.

First, we would like to share with you a few of the recent milestones reached by the MSUTR:

- Over 4,700 twins have now participated in the Children of Twins Project (COT) study!
- Over 24,000 twins have participated in a Michigan Twins Project (MTP) study.

This research would not be possible without the generosity of the twin participants, their parents, and the 150+ research assistants who dedicated over 70,000 hours of their time to the projects! Thank you for making our research possible and for making a difference in our quest to understand the origins of major medical, psychological, and social difficulties!

As always, feel free to contact us about anything in this newsletter or any of our studies.

Sincerely,
Drs. Alex Burt and Kelly Klump
(Directors of the MSUTR)

Research Findings from Our Studies!

The MSUTR researchers were interested in exploring the relationship between twin social behavior and the behavior of their friends. Previous studies have shown that children who are friends with deviant peers are likely to engage in deviant behavior themselves. However, these previous studies primarily investigated the relationship between peer behavior and physical aggression, which means that they did not examine other behaviors, such as social aggression. Additionally, we were interested in exploring whether having deviant friends was associated with socially aggressive behavior in boys and girls equally.

To answer these questions, we examined a sample of 1,014 twin pairs from the Twin Study of Behavioral and Emotional Development in Children. The twins' mothers, fathers, and teachers each filled out two surveys. The first survey asked the adults to rate the twins' social behaviors with peers. The second survey asked the adults to rate the antisocial and prosocial behavior of the twins' friends.

We found that both male and female twins who were friends with deviant peers were more likely to engage in socially aggressive behavior themselves. Furthermore, twins whose friends were popular and/or academically successful were less likely to engage in socially aggressive behavior. These associations were true for maternal, paternal, and teacher reports of twin and peer behavior.

These results suggest that children who engage in deviant behaviors are more likely to be friends with peers who behave similarly. This could be because children actively seek out friends who are similar to themselves on certain behavioral characteristics, such as aggression. It also may be due to socialization, which means similarity among friends develops over time. Moving forward, we hope to be able to continue investigating these questions and the development of similar social behaviors using data collected from the MSUTR.

	Maternal Report	Paternal Report	Teacher Report
Male	.289**	.443**	.319**
Female	.255**	.339**	.328**

** $p < 0.001$

Table 1. The associations between peer and twin behavior according to maternal, paternal, and teacher reports

Multiples in the Olympics

The Summer Olympic Games taking place this month in Rio de Janeiro will feature the first known set of triplets to qualify for an Olympics. Liina, Leila and Lily Luik are marathoners who will be representing Estonia at the games. A total of over 200 twins have competed throughout the history of the modern Olympic Games! Notable twin pairs that have represented Team USA include:

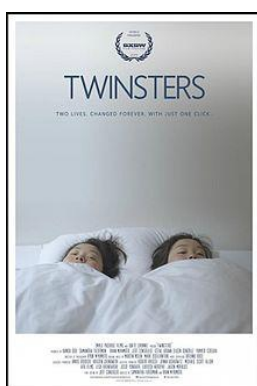
Paul and Morgan Hamm – The Hamm brothers competed in the Summer Olympic Games in Sydney in 2000 and in the Athens Games in 2004 as part of the men’s gymnastics team. Paul won the gold medal in the individual all-around competition in Athens, and both brothers also won the silver medal in the team event that year.

Jocelyn and Monique Lamoureux – The Lamoureux sisters represented Team USA in the Winter Games in Vancouver in 2010 and in the Sochi Games in 2014. They won the silver medal during both games as members of the women’s ice hockey team.

Bob and Mike Bryan – The Bryan brothers won the bronze medal in Beijing 2008 and took home the gold medal in London 2012 in men’s doubles tennis.



Twins in Film



Premiering at the 2015 South by Southwest Film Festival, the documentary *Twinsters* tells the story of identical twins born in South Korea and separated at birth that reconnected by chance 25 years later. While studying in London, Anaïs Bordier was watching YouTube videos and happened upon a clip that featured Samantha Futerman, an actress living in Los Angeles. Anaïs felt that the resemblance between her and Samantha was incredible and proceeded to get in touch with her via social media. The girls eventually meet and after a DNA test, confirm that they are twins. The film details their journey and showcases the remarkable bond that can exist between twins.

To learn more about the film and to view the trailer, please visit:

<http://edu.passionriver.com/twinsters.html> or contact Kimberly Balao of Passion River Films at kim@passionriver.com.

Our Current Studies

Study 1. Female Twin Study of Hormones and Behavior: This project investigates changes in mood and behavior across the menstrual cycle in female twin pairs ages 15-25 who have at least one twin taking hormonal contraceptives. The study includes three meetings and one phone interview, scheduled around the twins’ availability. All three appointments can take place at MSU or in the twin’s home. Participating twins are paid up to \$140 for completion of the study.

Study 2. Michigan Twin Neurogenetics Study (MTwins): In collaboration with researchers at the University of Michigan, this project examines how differences in behavior emerge at the level of the brain by following up with families with twins ages 7-15 that have previously participated in our Twin Study of Behavioral and Emotional Development in Children (TBED-C). This study includes one visit to the University of Michigan where families engage in an MRI session, clinical interviews, family interactions, and self-reports from the child and parent. Participating families are paid up to \$400 for the completion of this study.

Study 3. Michigan Twins Project & Children of Twins Project: These related studies are focused on developing a registry of twins ages 3-55 born in Michigan. To participate, adult twins and parents of child twins complete a brief questionnaire that assesses family composition and health status. The questionnaire may be completed using our online system or via the mail. Participating twins/families are sent a gift card to thank them for their participation and are given the opportunity to be contacted about future twin studies.

If you are interested in Study 1, or know someone who is, please contact us at: msutr@msu.edu or call (517) 432-3665

We are currently contacting families that are eligible for Study 2. For more information, please contact us at: burtlab@msu.edu or call (517) 355-6878

If you are interested in Study 3, or know someone who is, please contact us at: msutr@msu.edu or call (517) 432-5604