



NEWS, VIEWS & COMMENTS

Reunited Twins: Spouse Relations / Twin Research Reports / Timely Topics

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The present article explores the social attraction that may evolve on the part of reared apart twins' spouses toward their brothers- and sisters-in-law, that is, their spouses' newly found co-twin. This topic was inspired by the fascinating story of monozygotic reared apart (MZA) twins who were reunited in Perth, Australia in 2008, at age 50. It is followed by brief reviews of twin research articles concerning divorce rates among mothers of multiples and X-chromosome inactivation in MZ female twin pairs. The final section presents informative human interest stories involving twins.

Reunited Twins: Spouse Relations

In February 2010 I received an e-mail message from Dorothy Loader, a reared-apart monozygotic twin (MZA) who had been reunited with her twin sister Rosabelle (Belle) Glasby two years earlier. The twins were 50 years of age when they first met one another. They were originally from Malaysia, but the reunion took place in Perth, Australia on September 27, 2008. Dorothy forwarded the link to her online memoir, *Buy One Get One Free*, co-authored with her sister and her sister's husband, Marc Glasby.

The book's subtitle is *A Book About Fact Being Stranger Than Fiction*, and in some ways it was. The subtitle did not reflect the twins' striking behavioral and physical similarities (e.g., facial features, mannerisms and nausea triggered by stress); instead, it was a reference to Marc's immediate and overwhelming attraction to his newly found sister-in-law and the intimate relationship that developed between them. The present article examines this occurrence in light of Lykken and Tellegen's 1993 research on social attraction between twins' spouses and their brothers- and sisters-in-law. I will first describe the circumstances of the twins' separation and reunion.

The twins, Dorothy and Belle, were born on February 12, 1959 in a small mining community in the state of

Trengganu, in Malaysia. There were other children in the family and their parents were unable to provide financially for two premature infants. Belle was adopted by an Anglo-Dutch family that eventually left Malaysia for Singapore. She learned that she had a twin sister when she turned seven. Dorothy was adopted by a British father and Chinese mother and was raised in Malaysia. She did not learn that she had a twin sister until she was a teenager and discovered her adoption papers accidentally while cleaning out a room in her home.

Searches for biological family members were not as easy in the 1980s as they are today because Internet resources were not available for public use until 1992 (Questions and Answers, 2011) and adoption details were often kept secret. It therefore took Belle 20 years to find her sister. However, the Internet was ultimately responsible for the twins' reunion — an article from the *Malaysian Star* newspaper about Dorothy and her husband, including a photograph, had been posted on a website, leading

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Belle to her twin. The twins were reunited at the airport in Perth with the assistance of the Australian Broadcasting Commission's program *Can We Help?*

The social relationships between co-twins have been extensively studied by now (Segal, 2000). The generally closer associations between MZ twins, regardless of their rearing status (reared apart or together), have been well demonstrated (Segal et al., 2003). The close social relationship that developed quickly between Belle and Dorothy was, therefore, not surprising. However, much less research has been conducted on relationships between the spouses of twins and their brothers- and sisters-in-law, that is, their spouses' co-twin. In fact, the only such study of which I am aware was completed by Lykken & Tellegen (1993), and was limited to twins reared together.

Belle's husband Marc's response to Dorothy suggests that investigating relationships between the spouses of reunited twins and the newly found co-twin would be fascinating and informative. Marc noted that, 'After all that has happened we have come to believe that since the first moment Dorothy and I met, the same sort of chemistry that exists between Belle and [me] started to develop. Even Dorothy admits that she felt some kind of connection even though it took time for it to develop into love.' The intimate relationship that evolved between Marc and Dorothy took place with Belle's consent and understanding, although she experienced occasional emotional difficulties because of it.

A brief review of Lykken & Tellegen's (1993) findings provides context for a discussion of the unique in-law relationships that emerge when MZA twins meet. Based on data from the Minnesota Twin Registry, it was found that 13% of MZT twins' husbands and 7% of MZT twins' wives said they 'could have fallen for their spouse-to-be's identical twin'. These percentages are strikingly low, given that MZ twins' choices in many other domains, including friendships, are so similar. Lykken and Tellegen concluded that romantic infatuation is chiefly responsible for mate choice and that this phenomenon is inherently random. However, they acknowledged that limitations of their study did not rule out contributions to mate selection from some, as yet, unidentified lawful processes.

Twins Raised Apart

Does it work this way when twins are reared apart? No one has investigated that question and the single example provided by the reunited Malaysian twins must be viewed cautiously. Their experience may not be characteristic of separated twins in general, especially because Dorothy was in a troubled marriage when the twins met. However, the immediate attraction Marc felt for his wife's twin, and the fact that she reciprocated his feelings, provides grounds for examining and reconciling their responses with Lykken and Tellegen's research.

Future spouses of MZT twins often share considerable time with their fiancée's co-twin, raising the possibility that a kind of 'incest taboo' between the future spouse and in-law becomes established, blocking the development of potential attraction. The situation would be different for the spouses of reared-apart twins because they would have lacked opportunities to interact with the twin brother or twin sister. Perhaps when a spouse meets this brother-in-law or sister-in-law for the first time (and this person is identical to his or her husband or wife) it rekindles the feelings of attraction that were present at the start of their relationship. These ideas are speculative and in need of considerable study.

Relaxation of the incest taboo has been evident in cases involving reared-apart opposite-sex twins who unknowingly marry. I described this situation in an earlier article in *Twin Research and Human Genetics* (Segal, 2008). The incest taboo, or Westermarck Effect, comes from growing up with opposite-sex family members and is believed to provide the psychological basis for choosing mates who differ genetically from the self. It is adaptive in the sense that close relatives are likely to carry single copies of the same detrimental recessive genes, so a child they might conceive would have a 25% chance of expressing the relevant disorder; this would be avoided by mating with non-relatives. Given that marital partners show positive assortment for height, intelligence and social values, opposite-sex twins could be attracted to one another partly due to similarities in these traits and others. Brief life stories of reared apart opposite-sex co-twins who married were described in my earlier article and in Segal (2000).

Twins Raised Together

Both MZA and MZT twins make similar choices across a wide range of behavioral domains, as I indicated above. Thus, the finding that most MZT twins lack interest in their co-twins' spouse seems surprising. Perhaps the right experiments have not yet been conducted and significant information has been overlooked. However, I believe that the right study has been attempted, albeit on a very small scale, but many people are unaware of it. An experiment conducted by the British Broadcasting Company (BBC) for a 2003 program in which several twin researchers and I participated was quite revealing. Identical twins were placed in separate rooms so that each could be introduced to one member of several sets of identical twin pairs in succession. The experiment was designed to determine if MZ twins are attracted to the same person as a potential dating partner. It turned out that most of the twins did favor members from the same pair, suggesting that twins are often attracted to the same person or type of person in dating situations. This outcome, and the fact that Dorothy was meeting her twin's spouse for the first time, makes her attraction to Marc comprehensible. Of course, most

potential spouses are not identical twins, so only one twin can pursue the relationship. Marriages between identical couples would seem to be the solution to this situation, but these arrangements include complexities we have yet to understand.

There have been documented cases of identical twins who marry identical twins (Segal, 2007; Taylor, 1971), but the frequency of this type of marriage is unknown. In addition, it is not the case that the individuals are equally attracted to their spouse and their spouse's twin. As an example, I am aware of a twin who strongly denied feelings of attraction to his wife's twin sister, identifying differences in the twins' seemingly identical facial features

that strongly influenced his perception of the two sisters (Segal, 2007). It is interesting to speculate as to whether or not he would have been attracted to his sister-in-law had he never met her twin.

It would be informative to repeat the BBC's experiment with larger twin samples and under more controlled conditions. Extending this line of research to reared apart twins and their spouses would also tell us a great deal about to whom we are attracted, and why. Distinguishing between 'liking' and 'feeling attracted to' the spouse's co-twin would be an important element of such a study.

Twin Research Reports

Divorce Risk I

There is a common belief among many psychological professionals and parents of twins that the divorce risk is higher among mothers with multiple birth children. Reasons cited mainly include the financial and emotional strains of rearing two children of the same age. I had never seen any confirmatory data until I recently discovered research that both supported and refuted this view. Rainer Walke at the Max Plank Institute for Demographic Research in Rostock, Germany addressed this issue using women from the Swedish population registers, born between January 1945 and December 1985. He created a data subset of 14,536 mothers whose twins were their first-born children and a random sample of 104,970 other mothers with two single children.

Walker's three main findings were: (1) mothers with a singleton birth have the lowest divorce rate in the months following the birth, (2) the divorce risk is higher for mothers with twins than for mothers with one singleton and (3) the divorce risk is highest for mothers who had a second singleton child.

Divorce Risk II

Opposite findings on divorce risk in multiple birth families were described in a 2011 study by Steven McKay, a Professor at Birmingham University's School of Social Research in the UK (Collins, 2011). McKay's report examined data provided by the Millennium Cohort Study and the annual Family Resources Survey. The analysis showed that 28% of parents with twins or triplets had separated or divorced, compared with 24% of parents with singletons.

Parents of twins indicated increased stress and financial hardships associated with the birth of twins and higher-order multiples. McKay noted, however, that parents of twins tended to be married and employed, factors that should have partly buffered the stresses involved in raising multiple birth children; thus, his divorce risk findings need to be reconciled with these factors. It may be that in addition to stresses from rearing, stresses surrounding twins' medical problems are responsible for marital conflict. Unfortunately, I did not have access to McKay's original report which was supported by TAMBA.

Clearly, the impact of twins on marital satisfaction is a complex issue that deserves increased attention. Additional cross-cultural research will help to pinpoint the nature of the problems and identify solutions.

X-Inactivation in Female Twins

Differential X-inactivation has been responsible for some co-twin differences in female twins. Examples include color-blindness (Walls, 1959) and Lesch-Nyhan syndrome (DeGregorio et al., 2005). A recent study addressed the question of whether or not X-inactivation influences the pituitary-thyroid axis (PTA) set point (Brix et al., 2010). The investigators looked specifically at within-cohort and within-pair differences in X-inactivation patterns to see if they correlated with serum concentrations of thyrotropin, free triiodothyronine and free thyroxine. No associations emerged from this analysis, even after controlling for age, body mass index, smoking and zygosity. The genetic and environmental factors underlying the PTA continue to remain unknown.

Timely Topics

Twin Astronauts

The January 2011 shooting of Arizona Congresswoman Gabrielle Giffords and others outside a supermarket in Tucson shocked the nation and the world (Sunseri & Forer, 2011). We also learned that Congresswoman Giffords was married to identical twin, Mark Kelly. Mark and his brother Scott have the rare distinction of being the only identical twin pair in which both co-twins are astronauts. Mark will be aboard the space shuttle's final mission in April 2011, while Scott will have completed his orbit around the earth in the shuttle Discovery in March. However, Mark and Scott are not the only twins to fly in space (Segal, 2000). On April 16, 1972, identical twin Charlie Duke left the earth on Apollo 16 to become the tenth human to reach the moon's surface. His brother, Bill, was born with a heart defect so was unable to pursue the physically demanding lifestyle required of an astronaut. Bill became a doctor specializing in gastroenterology, and assisted in the building of a medical clinic for citizens of Togo.

Twin Businessmen

Thirty-eight-year-old Shane and Shawn Ward are the creators of Shane & Shawn shoes, a high fashion line of comfortable footwear (Ward, 2011). The twins, raised in Detroit, Michigan, were two of six children and had younger twin brothers Eric and Derrick. The twins appear to be identical based on inspection of their photographs. They are a good example of how natural talents and preferences often overtake those that are self-imposed.

The twins always showed a special fondness for drawing so when they entered the University of Michigan on academic scholarships, Shane 'followed his heart' and chose the School of Art and Design. However, Shawn chose the 'safe route' and studied mechanical engineering. After graduating from college in 1996, Shane began designing sneakers for Adidas, while Shawn pursued a Master's degree in engineering. Both twins moved to New York in 2001 where Shawn became an independent day trader and Shane became a freelancer in design for several shoe companies. Today, however, the twins are doing what they both love — designing shoes. According to Shawn, 'Having a twin is the luckiest thing that's happened to me'. He was lucky because his brother was doing what they both loved to do all along.

Twin Film I

Clint Eastwood's 2010 film, *Hereafter*, received only one nomination from the Academy of Motion Picture Arts and Sciences — special effects — an honor it did not receive. However, it is a powerful film about possible life after death, based on three interwoven life stories. One of

the stories involves the relationships between young identical twins, Marcus and Jason, played by the real twins Frankie and George McLaren. In the film, one of the twins is killed in an accident and the other twin is placed with foster parents when his mother is unable to care for him. The relationship between the brothers is close and extends in a fascinating way to the time after the death.

Hereafter is available on DVD and I highly recommend it for people who have not seen it. The DVD comes with an additional hour of commentary from experts, including one on twins.

Twin Film II

September 11, 2011 will be the tenth anniversary of the attack on the World Trade Towers in New York, the Pentagon in Washington, DC and United Airlines Flight 93 over Pennsylvania. Sally Lisk-Lewis, a surviving opposite-sex twin, is producing a film that will tell the life stories of the twins who lost their co-twins on that tragic day; also see Segal (2006) and Segal (2007). It is estimated that approximately 40 twins lost their lives at that time. Lisk-Lewis lost her twin brother Neil in September 2010, due to a rare heart condition. Neil was a cinematographer who lived and worked in Los Angeles. This film will also honor Neil's memory.

If anyone knows surviving twins from 9/11 who would like to participate in this project, please contact Nancy Segal at the e-mail address provided in this article.

Juggling Team

Jake and Mart LaSalle are identical twins in their late twenties whose joint juggling act was appreciated by thousands (Nir, 2010). They performed in the Big Apple Circus in New York City, and were chronicled in a six-part public television series called *Circus*. The twins had juggled together for years, their hand-eye coordination exemplifying identical twins' matched physical skills that are largely genetically based. They stopped performing together in 2009 because they no longer sought fame and attention in the same way and were ready to independently pursue different lines of work. Jake is now in medical school and Mart is considering business school.

The twins say there was no defining moment that was responsible for their decision, but it seemed that small events that had accumulated over time had a significant impact. Both twins were also daunted by the prospect of facing life alone. Jake said it well by explaining: 'Part of me [was] protecting myself, trying to abstract myself so that when the day came and there [was] no more juggling it [wouldn't] be so difficult.' I suspect that many identical twins experience similar thoughts, testimony the benefits and difficulties of being an identical twin.

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