

Twins and Politics: Political Careers and Political Attitudes / Twin Research Reviews: Pair-Bonding; Facial Expressivity in Reared Apart Twins; Educating Multiples / Stories That Move and Amaze Us: A Military Funeral; A Twins' Reunion; Egyptian Septuplets; Rare Occupations

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Twins and twin research are providing fresh insights into the roots of political behavior. This topic is approached from dual perspectives: why some individuals choose to become politicians, and why individuals vary in their political attitudes and interests. Reviews of timely twin studies in the areas of pair-bonding, facial expressivity and education follow. Finally, some extraordinary events in the lives of twins and their families are revealed.

Keywords: DZ twins, mixed couples, mirror-image effects

Twins and Politics: Political Careers and Political Attitudes

The November 4, 2008 United States presidential election raises many questions, among them the origins of political interest and activity. This topic is approached from two perspectives: why some individuals choose to become politicians, and why individuals vary in their political attitudes and interests.

Politicians

A select subgroup of individuals seek the offices of president or prime minister, and fewer realize that goal if they pursue it. This explains the attention given to monozygotic (MZ) twins, Lech and Jaroslaw Kaczynski, who held positions as President and Prime Minister of Poland, respectively.

Lech was inaugurated as President in December 2005; Jaroslaw was appointed Prime Minister by his twin brother in July 2006. Jaroslaw was ousted by Donald Tusk from the opposition party in October 2007.

The twins had an early flair for the theatrical. In 1962 they were cast in the roles of Jacek and Placek in a popular children's movie entitled *The Two Who Stole the Moon*. Stage presence is a quality that serves future politicians well.

Another pair of MZ twin politicians includes Julian and Joaquin Castro, from San Antonio, Texas (Gold, 2005). The twins were born in 1975 to a single mother who was Chairperson of the local La Raza Unida

(race united) Party. (This party was organized in January 1970 in Crystal City, TX. It was the first third party to be formed around ethnic lines; see Wikipedia, 2008.) The twins excelled early in their political careers after graduating from Stanford University and Harvard Law School. Julian became a member of the City Council and later ran for Mayor in 2005; he was ultimately defeated. He currently practices law in San Antonio. Joaquin became

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one of the youngest state legislators in Texas, an office he still holds.

In 2005, the twins made national headlines because of an incident that occurred during Julian's mayoral run, which was dubbed 'Twinsgate'. Julian was scheduled to ride on a city council barge as part of a parade, but changed plans at the last minute to attend a neighborhood forum. His twin brother Joaquin was on the barge and was mistaken for Julian. Joaquin shouted to the crowd that he was not Julian, but noise prevented onlookers from hearing him. Some people were later amused by the confusion, while others were offended. Regardless, it appeared to be an innocent mistake.

Fraternal twins have participated in politics at the highest level, but this has usually involved only one twin. For example, the late Senator Paul Tsongas had a twin sister (Thaleia Schlesinger); and University of Miami President Donna Shalala (former Secretary of Health and Human Services) has a twin sister (Diane Fritel).

The MZ and DZ twins described above are well known, but an Internet search identified only two other political pairs: Jerry and Terry Kilgore, and Ron and Don Mosbaugh (www.twinstuff.com/twinpolitics.htm). Jerry Kilgore is the former Attorney General of Virginia. He ran for governor of that state in 2005, but was defeated ([en.wikipedia.org/wiki/Jerry_Kilgore_\(politician\)](http://en.wikipedia.org/wiki/Jerry_Kilgore_(politician))). His twin brother Terry is serving his eighth term as delegate of Virginia's first legislative district (www.terrykilgore.net). Don and Ron Mosbaugh both ran for Jasper County, Missouri coroner in 2000 — Don as a Democrat and Ron as a Republican ([/findarticles.com/p/articles/mi_m2519/is_10_21/ai_70655024](http://findarticles.com/p/articles/mi_m2519/is_10_21/ai_70655024)). They shared their campaign manager. Ron (the incumbent) defeated Don with a total vote count of 22,859 to 13,247. There were accusations that Don crossed out his brother's name on lawn signs and replaced it with his own. (Note that the first letters of their first names correspond to the first letters of their party affiliations.)

It would be of great interest to know the relative proportions of MZ and DZ twin pairs in which one or both co-twins choose political profes-

sions. However, if we consider traits that generally characterize politicians (e.g., social dominance, extraversion, verbal ability), it is reasonable to expect more matched participation by MZ than DZ twins, because these traits have demonstrated genetic components. MZ twins also show greater similarity in vocational interests (Moloney et al., 1991) and job satisfaction (Arvey et al., 1989) than do DZ twins.

The Voting Public

'Hot topics' in twin research erupt periodically and the origin of political participation is one of them. Previous attempts to understand why people vote yielded few definitive findings. It now seems that investigators omitted a key variable from their equations: genetically based individual differences. This becomes clear from two recent twin studies.

Fowler et al. (2008) reviewed electronic voter registration records for 3.8 million Los Angeles voters. These records spanned eight different elections. Names were matched to the 878 same-sex twins enrolled in the Southern California Twin Registry; voting information was available for a reduced sample size of 396 twins (168 MZ and 102 DZ in intact pairs, plus 79 individual MZ twins and 47 individual DZ twins).

Correlations for voting behavior were significantly higher for MZ twins than for DZ twins (.71 and .50, respectively), indicating genetic influence. Model fitting (ACE model) showed that 53% of the variance could be explained by genetic factors, 35% could be attributed to shared environmental factors and 12% could be attributed to nonshared environmental factors. However, an AE model (one that did not include shared environmental components) provided a better fit to the data. This study was replicated using twins from the National Longitudinal Study of Adolescent Health (Add Health). The sample included 442 MZ twins and 364 same-sex DZ twins in intact pairs. Twins in this study were asked if they had voted in the last presidential election, and also responded to five questions concerning political participation. The results yielded a close match to those

from the first analysis: An ACE model showed that 72% of the variance could be attributed to genetic factors, 20% to shared environmental factors and 9% to nonshared environmental factors. Again, an AE model showed a better fit to the data.

The origins of partisanship strength and direction were addressed in a subsequent twin analysis (Settle et al., in press). Data were gathered from twins attending the 2006 and 2007 Twins Days Festival in Twinsburg, Ohio. The sample consisted of 353 same-sex twin pairs (278 MZ and 75 DZ). Zygosity was assigned via self-report, but showed perfect agreement with genotypic assessments of a subsample of 86 twins. Twins responded to the question: "Generally speaking, do you usually think of yourself as a Republican, Democrat, or what?" The seven response categories (later reduced to four) were Strong Democrat; Democrat; Independent, but closer to Democrats; Independent; Independent, but closer to Republicans; Republican; Strong Republican.

Genetic effects were found for partisan strength, but not for partisan direction. With respect to the former, 46% of the variance was attributed to genetic factors, while 54% of the variance was attributed to nonshared environmental factors; shared environmental effects made virtually no contribution. Failure to find a significant heritable component for partisan direction is consistent with previous studies in this area. For example, Alford et al. (2005) found a sizable shared environmental component for party affiliation (.41), (nearly as high as the .46 figure for educational attainment) among twins in the Virginia 30K Registry. Alford et al. (2005) did, however, find genetic influence on political attitudes and ideologies, consistent with the studies by Fowler et al. (2008) and others (Martin, Eaves, Heath, Jardine, Feingold, & Eysenck, 1986; Tesser, 1993). This work also parallels twin research on religiosity that has generally found genetic effects on religious participation (Koenig et al., 2005; Waller et al., 1990), but not on affiliation (D'Onofrio et al., 1999).

Are there genes for political participation? Evidence from a study of

twins, half-siblings and unrelated siblings points to two such genes: One form of the MAOA allele appears to be associated with voter turnout; a polymorphism of the 5HTT gene and

voter turnout appear to be moderated by religious attendance (Fowler et al., 2008). These results are exciting. Of course, replication of the findings with independent samples is necessary.

However, given the results from this latest study, as well as those cited above, twin studies promise to elucidate many aspects of political behavior in the future. It is the new 'hot topic'.

Twin Research Reviews

Pair-Bonding

An international team of investigators has conducted twin research suggesting an association between the vasopressin receptor 1a genes and human pair-bonding. Walum et al. (2008) examined 552 twin pairs (238 MZ and 314 DZ) from Sweden's Twin and Offspring Study (TOSS). Participants were required to have been in a partner relationship for 5 years, or longer. They and their spouses completed a series of pair-bonding questionnaires and provided mouthwash samples for extraction of DNA. Analyses revealed associations between the RS3 genotype and partner bonding, perceived marital problems and marital status in men. This gene was also associated with perceptions of marital quality by spouses. A relationship between this gene and pair-bonding in voles had been reported previously.

Facial Expressivity in Reared Apart Twins

The extent to which genetic factors affect emotional expressivity was recently reported (Kendler et al., 2008). Twenty-eight reared apart twin pairs, who participated in the Minnesota Study of Twins Reared apart (18 MZA and 10 DZA), were videotaped with a

hidden camera while they viewed three short films. The first film included three 1-minute segments with material that was pleasant in content. The other two films lasted for 2 minutes and included content that was unpleasant to watch; for example, an accident, injuries and surgeries. Raters' judgments were made in two broad categories (*positive emotions* and *negative emotions*) and in more specific categories (*happy, surprise, sad, anger* and *disgust*).

Genetic factors appeared to influence facial expressivity in some, but not all, categories of emotion. For example, counts of positive and happy expressions were more alike for DZA twin pairs than for MZA twin pairs. However, resemblance in the duration of general and specific emotions was greater for MZA twin pairs than for DZA twin pairs. It was also noted that only a small proportion of family resemblance in facial expressivity was affected by major personality dimensions. Despite the modest sample size, this is a unique study that should encourage further efforts.

Educating Multiples

The debate over whether to separate twins in school continues, but could

possibly be settled by a recent article on the topic. DiLalla & Mullineaux (2008) analyzed the problem behaviors of 1941 MZ twin pairs. Twins placed in the same classroom were rated more similarly by teachers with respect to problem behaviors. Interestingly, parents' ratings were lower for twins who shared a classroom. The authors emphasized the importance of parental input with reference to decisions concerning twins' classroom placement.

The following news brief appears especially perplexing in view of the research reported above. British twins Lexus and Amber Conway were born 45 minutes apart, but on opposite sides of midnight. As such, they do not share their birthdays, or even their birth months (Daily Mail Reporter, 2008). Lexus was delivered naturally on August 31, 2008 at 11:40 pm, and Amber was delivered by C-section on September 1. The cutoff date for school attendance is August 31, so in 4 years one twin will be able to attend school, while the other twin will have to wait another year. The twins' parents plan to challenge this policy, and have indicated their intention to move to Spain if their wishes are unsatisfied.

Stories That Move and Amaze Us

A Military Funeral

F-16 Fighter Pilot Dan Rooney described a life-changing experience on board a United Airlines flight from Chicago, Illinois to Grand Rapids, Michigan (Raymond, 2008). He learned that a young army corporal in dress uniform, Brad Bucklin, was accompanying the remains of his twin brother, Brock Bucklin, who had been

killed in Iraq. When the plane landed, an honor guard was present to remove the casket from the cargo hold. Cpl. Brock Bucklin's young son, Jacob, was among the family members waiting on the tarmac. Rooney watched from the window of the plane and what he saw gave him a new mission: developing FoldsoffHonor.org, an organization that donates funds to assist military families in need. Jacob was the first recipient.

A Twins' Reunion

Identical twins Ulrike Reichenbach and Conny Holzbrecher were born in 1969, in East Germany (Sheaves, 2007). The communist state forced their mother to put them up for adoption at the age of 3 months — she had three older children to raise and had to work. State policy did not allow twins to be adopted together, but a sympathetic

nurse encouraged Ulrike's adoptive father to take both twins. However, by the time he returned to the orphanage to claim her, Conny had been promised to another family. Consequently, the twins grew up separately in East Germany. However, when Ulrike turned 12 her family moved to Mainz in West Germany; her parents were political dissidents who were imprisoned, then expelled. Ulrike subsequently enjoyed holidays, cultural events, and recreational activities, while Conny grew up with limited personal freedoms and none of these benefits. Still, she felt as loved and wanted by her parents as did her sister.

The twins met for the first time when they were 26. Ulrike, who was told about her sister as a teenager, finally decided to locate her. They discovered that they had married at ages 18 and 19, had children of nearly the same age, wore their blonde hair long, had matching voices and worked as event managers. Both have separated from their husbands since meeting and are with new partners. They have also co-written a book about their lives.

MIT's Quads

The Massachusetts Institute of Technology (MIT) admitted their first set of male quadruplets into the incoming freshman class (MIT News, 2008). The quadruplets (whose zygosity was not revealed) come from the Los Angeles, California area. Given the wealth of studies showing genetic effects on general intelligence and special mental skills, it would not be surprising to learn that they are MZ — although MZ quadruplets are rare. If the quads are DZ, the acceptance of all four into such a select academic program would be somewhat unusual, but not completely unexpected.

News of the quads reminds me of other distinguished multiple individuals who both graduated from MIT — DZ twins David H. Koch (Co-Founder and Executive Vice-President of Koch Industries) and Bill I. Koch (Founder of the Oxbow Corporation and 1992 Winner of America's Cup). I wrote extensively about the Koch brothers in *Entwined Lives* (Segal, 2000). Both twins are high achievers, but their differences are more apparent than their similarities.

Egyptian Septuplets

Twenty-seven-year-old Ghazala Khamis delivered septuplets (four boys and three girls) on August 16, 2008, in Alexandria, Egypt (Al-Shalchi, 2008). The pregnancy lasted 34 weeks, and the infants weighed between 3 pounds, 3 ounces and 4 pounds, 10 ounces. Khamis had received hormone treatments when she failed to conceive after five years. (She already had three daughters, but she wanted a boy.) The first time she saw her multiple birth children was when they were on television (*Los Angeles Times*, 2008), still in their incubators. Four of the babies were then taken to another hospital because there was a shortage of incubators at the Shatby Maternity University Hospital where they were born.

Rare Pair of Occupations

I. 'Shoot the Freak' is a popular game that can be played along the Coney Island Boardwalk, in New York (Kilgannon, 2008). It involves shooting paint balls at a living human target who runs around a vacant lot wearing protective padding. Targets are encouraged to act 'freakish' to make customers want to shoot them. The game may not sound appealing to most people, but it is attractive to 17-year-old twin brothers, Eric and Jose Pico, who make a living at it. Both twins like the \$7.50 hourly pay (more than Jose was earning at his job taking inventory at a beauty products store), the outdoor setting and the opportunity to meet women. Jose also wants to become a police officer, and claims that this game provides good practice for avoiding shots. It is unclear if the twins are identical or fraternal, but the former is likely.

II. Identical British twins, Howard and Austin Raishbrook, have been called 'LA's twin paparazzi of pain' (Rubin, 2008). They are freelance videographers who separately drive through Los Angeles at night, capturing fires, car accidents, murders and other such newsworthy events for television broadcasting. Each twin keeps a laptop computer and radio scanner in his car in order to be alerted instantly to breaking news. The twins own RMG News, an agency that supplies video footage to local and national news networks for broadcasting.

The twins enjoy the lucrative aspects of their work, but that is not what keeps them engaged. They both like living on the edge and being close to action. As children they constantly toured their neighborhood, looking for trouble spots. Not finding the kind of excitement they craved, they left their home for Los Angeles where they found it. They work late hours and get little sleep. They derive genuine satisfaction from a job that would not attract most people. One twin described himself as a gambler who cannot walk away from the table.

It may be hard to understand why someone would seek the work of the Raishbrook twins, but easier to understand when we consider its appeal for identical co-twins. A blend of extraversion and thrill-seeking (traits with genetic components as demonstrated by twin studies; see Plomin et al., 2008) most likely combined to produce the twin paparazzi of pain.

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