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Twins

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Twins are a biological fact. As such, they occur in at least two different ways. One pattern involves one egg, fertilized by one sperm, which splits sometime during the first fourteen days after fertilization, thus producing *monozygotic* (uniovular) or “identical” twins. These twins have the same genetic make-up as each other and are always the same sex, being both boys or both girls.

The other twin pattern involves two eggs, each egg fertilized by a separate sperm. Eventually they produce *dizygotic* (binovular) or “fraternal” or “nonidentical” twins. Nonidentical twins may either be of the same sex, that is, two boys or two girls, or unlike sex pairs, that is, a boy and a girl. Genetically, either type of nonidentical twin, same sex or unlike sex pairs, are genetically as similar as any other two siblings. This genetic relationship can range from 25% to 75% of genetic similarity.

There are also some rarer types of twins. These categories include: mirror-image twins, who are identical twins; polar body twins, called half-identical twins; or conjoined (Siamese) twins, who are identical twins.

With the increasing use of ultrasound scans, twins have been detected early in a pregnancy but have “vanished” according to subsequent ultrasounds. This phenomenon has been termed the vanishing twin syndrome.

The incidence of identical twins has remained more or less constant; this constancy applies to most cultures over any given time period. Roughly about one third of all twins are identical and two thirds of all twins are fraternal.

In both the United States and the United Kingdom, the probability of having twins as of 1999/2000 is roughly 1 in 35 pregnancies. The chances of having twins in these two countries has risen recently mainly due to older mothers having babies and the increasing use of fertility treatments.

Rates of fraternal twins vary in different countries, with African countries producing the highest rates and Asian countries the lowest rates of twinning.

Myths about Twins

Myths about twins picture twins as being both positive and negative, harmonious and rivalrous, happy and unhappy, divine and human. Throughout the world's cultures, myths identify twins as gods who are deified men or women (such as in North and South American cultures). Other twin myths are foundation myths such as in the Biblical story of Jacob and Esau, indicating that two nations are to be born, or the most famous myth about the founding of Rome by twins Romulus and Remus.

Still other myths treat the issue of double paternity; that is, one twin is depicted as the child of a human father while the other twin has a different and divine father. One version of the *Dioscuri*, Castor and Pollux, otherwise known to us as the Heavenly Twins constellation, Gemini, falls into this group. Some myths attempt to provide answers to the culturally unanswerable. Some North American indigenous peoples, such as the Mohave, believe twins function as rainmakers; others believe that human twins are sent from heaven to bring both rain and fertility.

Thus the very many mythologies and cultures of the world contain quite a considerable

number and diversity of myths about twins.

Explaining Twin Birth

The birth of twins occurs in all cultures of the world. In most, the appearance of twins itself is a matter of surprise, even shock, both for the parents and the community at large.

In more traditional, nonindustrial societies, the birth of twins often disrupted the structure of the family and the position of individuals within the family. Twins caused a disturbance to the normal order of things. Sometimes this even involved a potential threat to the social order, so that in some extreme cases one or both twins were faced with infanticide; occasionally, the mother also faced death or, at the very least, ostracism. In these societies, concern about the question of who actually fathered the twins and the ensuing anxiety about the real (or even the imagined) disruptions to the established social system were expressed.

In more industrialized societies, due to the intervention of hospital equipment such as scanners and the increasing use of fertility drugs, which are one of the main reasons for the recent increase in twins and higher multiples, dealing with twinship begins at a much earlier stage, although some parallels with nonindustrial societies can be made.

Attitudes toward twins in different societies are mixed: Whether positive, negative or even ambivalent, these attitudes have been and are currently complex and intense. These qualities of complexity and intensity may include feelings of disturbance, anxiety, and unease about identity, especially individual identity.

Twins in the Media

Twins have provided an endless source of fascination for writers over the centuries. Initially, the overwhelming focus of attention was on the comic potential of mistaken identity, especially for monozygotic or “identical” twins. Subsequently, however, writers began to explore stereotypical—opposite—characteristics of twins, such as moral opposites of good versus evil, or opposites of identity, like versus unlike, twins as same versus twins as fundamentally different. Fiction writers also used the double (or the *doppelganger*) in their writing.

Alongside questions of identity, twins have been used by writers to illustrate a range of human behavior associated with twinship. One ever-present theme of this type would be the closeness of twins, such as is found in Bruce Chatwin's famous novel *On the Black Hill*. Another example of the very strong bond thought to exist between twins is found in Thornton Wilder's *The Bridge of San Luis Rey*. In children's literature, we find *Sweet Valley Twins*, where identical twin girls look so much alike it is virtually impossible to tell them apart, but yet they are described as having very different personalities.

In films, twins have been used in general to illustrate and explore themes of personal, psychological, and social identity. Several look at mistaken identity and its consequences, such as in *The Parent Trap*; others explore the indelible effects of twinship, such as Jodie Foster's twin portrayal in *Nell*. But the very refreshing and recent expression of the dichotomy of twins is Ivan Reitman's *Twins* where Danny

DeVito and Arnold Schwarzenegger play twin brothers, causing the audience to think that they can't be twins because they do not look anything alike, let alone look identical!

Twins in the press fare somewhat differently. Articles often appear about famous twins and famous parents of twins, such as agony aunts Ann Landers and Abigail van Buren or parents of twins Mia Farrow or James Stewart. Other articles focus on the unusual nature of being a twin, exploring the possible psychic affinity between twins, especially looking at those twins who were separated for one reason or another early in their lives. The actual birth of twins and the subsequent parenting of twins forms another category, followed by articles explaining or exploring what it is actually like to be a twin. Finally there are articles revolving around science and nature, often using twins to measure intelligence.

Unique Relationships and Characteristics

The bottom line for analyzing the unique relationship between twins must be the fact that unlike singletons, twins are two babies who are born more or less at the same time. This biological fact has consequences for the twins from the first prenatal stages of their lives, through the birth itself, and quite obviously for their subsequent development as children, as young people, and eventually as adults.

Scientists studying twins are currently debating about the role that genetics plays in relation to environment, also known as the nature versus nurture debate. Twins have been used to prove the greater influence of either nature or nurture on behavior, although more and more studies accept the interplay between the two (influences). This is vital for actually understanding the determinants of behavior of different sets of twins.

Knowing whether a twin is identical or fraternal is also vitally important for those scientists hoping to explain behavior and development by twin type. The most popular current method of *zygosity* determination (determining whether twins are fraternal or identical) is by DNA testing; a swab of cheek cells from each twin will determine whether they are identical or not.

Much twin research has focused on the different types of twins, hoping to establish relationships concerning the role that genetics plays. Other social scientists are concentrating on the role that environment plays, but they are now not assuming that twins necessarily share the same environment, any more than any other sibling in a family shares the same environment. In other words, each twin has another person (his or her twin) directly or immediately in their environment, virtually from the moment of conception. And this other person, the twin, modifies and determines the environment in which they both live. They are defined and often treated as twins, although like other siblings they also face varying environments due to gender differences, positions in the family, relation to parents, and so on. Nonetheless, they share the "twin factor."

Summary

Twins are different, distinct, special, and fascinating. They have been studied, analyzed, and written about for a long time in all cultures, yet there is still a great deal to learn both about twins and from twins.

- twinning
- identical twins

- fraternal twins
- myths
- ultrasound
- world cultures
- eggs

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See also

- [Fraternal Twins](#)
- [Identical Twins](#)

Further Readings and References

Bryan, E. (1995). *Twins, triplets and more: Their nature, development and care*. London: The Multiple Births Foundation.

Farmer, P. (1996). *Two or the book of twins and doubles*. London: Virago Press.

Freidrich, E. and Rowland, C. (1990). *The parenting guide to raising twins*. New York: St. Martin's Press.

Multiple Births Association, <http://www.mbf.org>

National Organisation of Mothers of Twins Clubs, <http://www.nomotc.org>

Sandbank, A. C. (1999). *Twin and triplet psychology*. London: Routledge.

Siegel, N. (2000). *Entwined lives: Twins and what they tell us about human behavior*. New York: Plume.

Stewart, E. A. (2003). *Exploring twins: Towards a social analysis of twinship*. New York: St. Martin's Press.

Twins and Multiple Births Association, <http://www.tamba.org>