



NEWS, VIEWS & COMMENTS

Dvojčata Asociace: The First International Twins Conference in Prague, Czech Republic. Research Reviews: Twinning trends in East Flanders; Twinning trends around the world. Twins in the News: ‘Mixed race’ twins; Mysterious languages; Piano duo; Happiness and more

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Dvojčata Asociace: The First International Twins Conference in Prague, Czech Republic

The First International Twins Conference held in the Czech Republic (CR) took place in Prague on October 20–21, 2011. The conference, ‘Life With Twins’, was arranged under the auspices of the Parliament’s Commission for Family and Equal Opportunities. The setting was an auditorium in one of the Parliament’s magnificent old buildings. Mrs. Klara Vitkova Ruliková, mother of 18-year-old opposite-sex twins, chairperson of the Czech multiple birth association (CAKDAV) and member of the International Council of Multiple Birth Organizations (ICOMBO), was instrumental in organizing the meeting. Mrs. Vitkova Ruliková has also authored three books on twins and parenting, and was responsible for writing the Epilogue for my 2005 book, *Indivisible by Two: Lives of Extraordinary Twins (Ned litelná Dvěma: životy Výjimečných Dvojčát)*, which was translated into Czech by Triton Press in 2009. She is currently working in the Ministry of Labour and Social Affairs. She is shown in Figure 1 addressing the conference.

I was fortunate to be invited to present research at this conference, along with other psychologists, physicians, psychiatrists, social workers, and twin specialists. In addi-

tion to Mrs. Vitkova Ruliková (Mgr.¹) and me, the following individuals discussed their research findings and clinical observations: Dr Tat’jana Horká (CR), Dr Antonín Pařízek (CR), Dr Josef Vas (Hungary), Lynda P. Haddon (Canada), Dr. Pavlína Kallusová, Jaroslava Raudenská (CR), Mgr. Marie Fejtková (CR), Dr Pat Preedy (UK), Dr Kristína Tóthová (CR), Ing. Ludvík Pinc (CR), Mgr. Tereza Šašínková (CR), and Gail Moore (Canada). The conference began with a welcome from parliamentary member, Marek Benda.

Many familiar issues concerning twins and their families were addressed at the meeting, and I will briefly describe some of them below. However, one of the most interesting and informative talks was given by Mrs. Vitkova Ruliková, who presented a historical sketch of the

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**FIGURE 1**

Mrs. Klara Vitkova Ruliková addressing the First International Twins Conference, Prague, CZ, October 20–21, 2011. [Photo: Michal Fic].

events responsible for CAKDAV. It is important to tell her story because it may encourage other parents of twins to establish local and national organizations to benefit twin children and their families.

When Mrs. Vitkova Ruliková conceived opposite-sex twins nearly 20 years ago, there was very little information available to her regarding how to raise twins or how being a twin might differ psychologically from being a singleton. Dissatisfied with this situation, she decided to change it. In 1993, Mrs. Vitkova Ruliková began by obtaining relevant materials on twins from TAMBA (Twins and Multiple Births Association) in the UK. Over the next two years, she contacted other mothers of twins and, in 1995, the decision was made to formally establish a local twins club. In 1996 and 1997, the efforts of these mothers were made known to mothers in other Czech cities and, as a result, more and more twins clubs evolved. By 2000, advisory services were offered by telephone from Mrs. Vitkova Ruliková's home, but the

response was overwhelming. It was necessary to establish a website for this purpose, and others.

The year 2000 was also dedicated to distributing information to hospital staff in order to make it available to expectant mothers of twins. In 2002, the first book about twins was published in the Czech language. However, 2003 was the most pivotal year because the national Twins and Multiple Birth Association, or CAKDAV, was established and began coordinating the work of the smaller clubs. National conferences started to be held on a yearly basis, bringing together the members from 45 separate clubs. CAKDAV joined ICOMBO in 2006, and two new books on twins in Czech were published in 2008 and 2009. These efforts culminated in the first International Twins Conference in 2011.

The conference was organized into sessions covering the Prenatal Period, Birth and the Neonatal Period; Breastfeeding and the First Three Years; Psychological Aspects of Preschool and School Age Twins; Psychological Aspects of Adult Twins; and Organizations to Support Families with Twins. The diffi-

culties of twin pregnancies, especially early delivery, were discussed by Dr. Pa ízek, who noted that premature birth can be delayed, but not prevented. Marie Fejtková discussed educational issues regarding twins, indicating her preference for allowing classroom placement decisions to be made on a case-by-case basis. Czech parents have little input into this decision when children start school. Dr. Kristína Tóthová described counseling bereaved twins, calling them ‘forgotten mourners.’ It seems that the unique features of twin loss are often overlooked.

Dr. Pat Preedy described her new work with Movement for Multiples, a program that allows one twin to exercise independently while the parent attends to the cotwin. Linda Haddon presented an informative overview of her work with multiple pregnancy loss. Ludvík Pinc described twin studies of odor similarity, in which dogs have tried to distinguish between monozygotic (MZ) cotwins. Gail Moore discussed her efforts toward disseminating information on twins at home and abroad.

Information about CAKDAV is available on the association’s web site at www.dvojcata-asociace.cz. Several portions are presented in English. The association’s logo is a pair of dice that may show identical or contrasting sides when thrown. It is a clever choice — twins may be identical or nonidentical, paralleling tosses of 3–3 and 3–4, respectively. Nonidentical twins can vary along trait-related spectrums of similarity, such as showing relatively close resemblance (tosses of 4–5) or relatively marked disparity (tosses of 1–6).

Twin Research Reviews

Twining trends in East Flanders.

Two key questions regarding dizygotic (DZ) twinning have been recently addressed: (1) Were natural DZ twinning rates over the last four decades (1969 to 2009) influenced by increasing maternal age?; and (2) Did changes in the age-adjusted twinning rates reflect changes in the natural DZ twinning rates? (Derom, Gielen, Peeters, Frijns, & Zeegers, 2011). Data for 4835 naturally conceived twin pregnancies were used in these analyses as part of the East Flanders Prospective Twin Survey in Leuven, Belgium.

The natural DZ twinning rate rose from 4.3 to 6.1 per thousand pregnancies; a similar increase was seen in the total natural twin population. In contrast, the MZ twinning rate remained constant. Maternal age for mothers of both MZ and DZ twins also increased over the study period, with mothers of DZ twins being one year older, on average, than mothers of MZ twins. The natural DZ twinning rate did not show significant change following maternal age adjustment. Maternal age did not affect the natural MZ twinning rate.

The stability in the DZ twinning rate was interpreted as reflecting the high fecundity of the population under study. The decline in DZ twinning, apparent in Western Europe and in other Western nations during the 1950s through the mid 1970s, and variously attributed to environmental pesticides and emotional stress, seems to have been reversed (Segal, 2000). In fact, evidence of this reversal has been reported previously (James, 1995).

Twining trends around the world.

A paper reporting twinning rates across developing countries (Smits & Monden, 2011) is an excellent companion piece to the paper by Derom et al. (2011) reviewed above. The investigators, from the Institute for Management Research in Nijmegen, the Netherlands, and the Department of Sociology at Oxford University in Oxford, England, gained access to an unusual data set. They obtained information on twinning among women (15–49 years of age) who were interviewed in 150 demographic and health surveys across 75 low and middle-income nations. Data for China were also included in the study, based upon published figures from the 1990 census. Such data have never been reported previously on so grand a scale.

The data were gathered between 1987 and 2010. The sample was restricted to births occurring during the ten years prior to the interview to limit the timeframe of the study and to avoid selection difficulties. That decision yielded 2,473,209 births involving 1,379,694 mothers. There were 30,895 multiple births.

The results are fascinating, but I will highlight just a few. The low twinning rate of 6–9 per 1000 births observed in East Asian countries also characterizes the entire south and southeast Asian region. Nigeria turns out not to hold the highest record for DZ twinning, a distinction belonging to Benin, whose twinning rate is 27.9 per 1000 births. Lastly, twinning rates in Latin America are at the same low level as those in Asia. These regions may have unusually high MZ twinning rates; up to two-thirds of the 8 twin births per 1000 births are MZ.

The high twinning rate in Central Africa continues to pose serious health challenges, given the greater physical risks to which mothers and twins are subject. Identifying regions of increased twinning is key to introducing appropriate health care programs and support services.

Twins and Twin Topics in the News

‘Mixed race’ twins.

Eighteen-year-old twins, James and Daniel Kelly, are part of the unusual subset of fraternal twins who appear to belong to different racial groups (Moorhead, 2011). James

resembles their black Jamaican-born father and Daniel resembles their Caucasian British-born mother. Interestingly, each of their parents had had twin children in previous marriages — fraternal twin boys (their father) and identical twin boys (their mother).

University of Edinburgh population geneticist, Jim Wilson, offered reasons for the twins' marked physical differences. He explained that European DNA was introduced into the Caribbean gene pool by slave owners who raped female slaves. As such, James would have inherited his father's dark skin variants, whereas Daniel would have inherited those for lighter skin. Dr. Wilson believes that, because the twins' father probably has more African than European DNA, the chance of having a light-skinned child like Daniel was slim — the children in only 1 of 500 sets of twins with such interracial parents could be expected to look so different.

The twins, who were raised in southeast London, were ostracized by classmates when they were young, but Daniel faced greater difficulty than his twin brother. In particular, he had been accused of inappropriately calling himself white despite his black heritage. Daniel also experienced insensitivity from his nursery school teacher, who required that he draw a picture of himself with dark skin. Daniel's mother withdrew her sons from the school, saying that her son had a right to identify as white. She also felt that this situation made her feel irrelevant 'as though my color didn't matter.'

Mixed-race twins are a fascinating but understudied group of DZ twins. They are presumed rare, yet I suspect that a modest-sized, but informative, sample could be assembled, especially if individual cases were pooled collaboratively. Such twins could highlight factors associated with identity and self-esteem, if family background and other environmental factors were controlled.

Mysterious languages.

Ten additional 'mysterious ciphers and languages' were recently recognized (Weidinger, 2011). Among them were the Ptolemy Map Code, the Feynman Ciphers, and cryptophasia. Cryptophasia is the well-known private speech that may evolve between twins. Weidinger distinguished it from idioglossia because he claims the former also includes mirrored actions such as gestures and mannerisms.

Weidinger correctly writes that twins or other children who display cryptophasia do not truly invent a language, but use each other as linguistic models more often than they use adults, thus creating a unique vocabulary between them. Such speech is often unintelligible to others. He also indicates that cryptophasia occurs among 40% of twins, but does not cite a reference. I believe the original source of this much-quoted statistic is Bakker (1987), and is a figure that requires current confirmation. An informative source on twins' language development is a set of companion papers

by Rutter, Thorpe, Greenwood, Northstone, & Golding (2003) and Thorpe, Rutter, & Greenwood (2003).

Piano duo.

Unusual musical talent is rare and greatly admired, but even more so when that talent is repeated in two individuals. Identical twins, Christina and Michelle Naughton, from Madison, Wisconsin, are famous for piano duets, which they have performed all over the world (The Schubert Club, 2011). They began their musical studies at the age of four years.

In October 2011, the Naughton twins returned to the Midwest to appear at the Ordway Center for the Performing Arts, in St. Paul, Minnesota. They chose their pieces wisely, among them 'Andante and Allegro brilliant, Opus 92' (for four hands; Felix Mendelssohn); 'Variations on a Theme of Joseph Haydn, Opus 56b' (for two pianos; Johannes Brahms), and 'Variations on a Theme by Paganini' (for two pianos; Witold Lutoslawski).

Happiness and more.

Twin studies have been instrumental in identifying genetic influences on human happiness. A 1996 study of twins reared apart and together found that 48–52% of the variation in wellbeing is explained by genetic factors (Lykken & Tellegen, 1996). More recently, a collaborative study involving four universities and over 1000 twin pairs produced a working paper indicating that genetic factors account for about one-third of the variation (*The Economist*, 2011).

Other work on this topic does not involve twins directly, but will interest anyone concerned with the roots of happiness. A study of British adolescents found that variants of the serotonin transporter gene are associated with individuals' level of satisfaction; serotonin is involved in mood regulation. Specifically, those with one long allele were 8% more likely to be satisfied than those with two short alleles, and those with two long alleles were 17% more likely to be satisfied. Related work has revealed population differences in the frequency of the long and short serotonin genes and the associations with mood. No doubt, twins will contribute to research in this area in the future.

Endnote

- 1 Mgr. is a university degree awarded upon completing 5 years of study by a State Final Examination. Ing. is the same degree awarded upon completing Technical High School.

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