## **Abstract**

Most studies investigating birth order effects used between-family designs. Prior research suggested that they could hardly yield significant results as many confounds were involved. Within-family designs can eliminate some confounds but confounds including age gap and genetic effects still have not been controlled. This study used within-family design and selected twins as subjects. As there is no age gap in twin siblings, age gap confound can be avoided. No age gap is also desirable as birth order effects decrease with increasing age gap. Genetic effects can be controlled by comparing monozygotic and dizygotic twins. Secondary data analysis of a twin data set of 2956 Chinese was conducted. They were recruited from five provinces of China with age ranging from 16 to 62. Birth order effect on five basic emotions (sadness, fear, happiness, anger and disgust) was investigated by conducting two way repeated measures ANOVAs. Using Carstensen Emotion Questionnaire, emotional experience, external and internal emotional controls were measured. Results showed that when genetic influence was controlled, male first born had less favorable emotional experience (more sadness) and lower external emotional control (fear, happiness and anger) than later born. Opposite results were found for females. These findings suggest that male later born and female first born may have advantages in emotional experience and emotional controls. They partially confirm the Sulloway's model that first born is more neurotic, which might imply a more negative emotional experience and lower emotional control. However, these findings also suggest that the model may be moderated by gender.