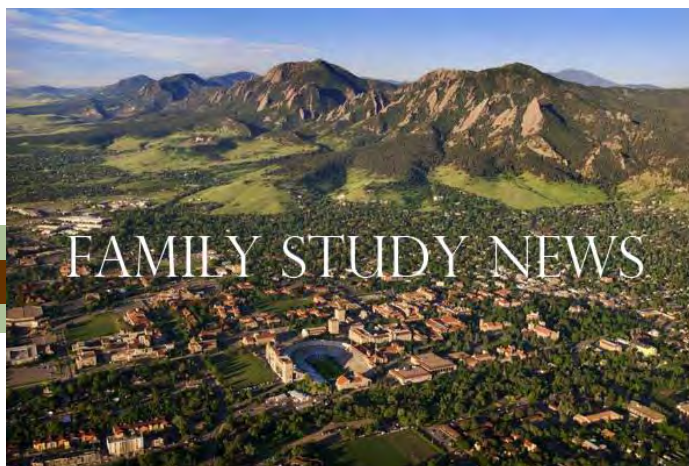




Summer 2011



Your participation makes us jump for joy!



- Your time, interest, and years of participation are very much appreciated.
- This research is only possible with your continued involvement.
- If you are interested in any of the papers or articles featured in this newsletter, please contact us.
- If you have moved, please let us know.

21ST CENTURY PALM READING

If you were to draw a line down the middle of your body and look at both halves, how would they compare? If you had perfect symmetry the halves would be completely in sync – everything would be the same length, down to the length of the ridges in your thumbprints. Of course this is not the case, as no human has perfect symmetry.

In a study with some twins in the CADD project, we are measuring levels of symmetry to see how they correspond to other people's perceptions (like attractiveness ratings) as well as to fitness levels and behaviors.

Using a scanner to take close up images of hands, we are able to compare one side to the other.

By measuring palm lines, the length of fingers, and the number of ridges in the fingerprints, we can assign a level of similarity, or symmetry. As expected, identical twins have more similar levels of symmetry than do fraternal twins.

In theory, our levels of symmetry correspond to our general health. The more symmetrical we are, the higher our level of "developmental stability". Someone with a high level of developmental stability is able to resist and correct the small changes and mutations that naturally occur in our DNA. This makes their bodies more symmetrical.

As we collect more of this symmetry data we will begin to look

at how it predicts general health as well as how symmetry may be related to certain behaviors. Evidence from other studies suggests that individuals with low levels of developmental stability are more prone to bipolar disorder and schizophrenia. We plan to compare our symmetry data to behavioral data such as risk behavior and conduct disorder to see if they are related to one another.

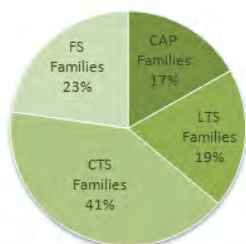


IBG research focuses on the
symmetry of twin hands.

Image: hinnanmaisuy/FreeDigitalPhotos.net

YOU'RE IN GOOD COMPANY

Current Participation

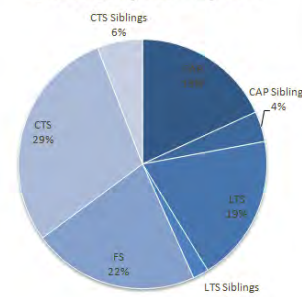


Over eighty percent (80%) of families originally tested continue to take part in all projects. The green chart to the left shows the make up of current participation. Community Twin Study (CTS) participants account for over 40% while Family Study (FS), Colorado Adoption Project (CAP), and Longitudinal Twin

Study (LTS) participants split the remaining 60% into almost equal parts.

In the last year, 783 individuals participated in the CADD project. Those tested were close to equally represented by CAP, LTS, CTS, and FS families as shown in the blue chart.

Tested 6/10 - 5/11





Summer 2011
Family Study News
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CHANGES IN RELIGIOSITY

Using data from over 2000 twins, a group of IBG researchers looked at change and lack of change in religious values and religious attendance. In addition, the causes of both change and lack of change were examined. Adolescent and early adult aged males and females were included in this study.

- The findings showed that from the late teen years to early adulthood genes played a large part in religious values and even more so in religious attendance.

- When religious values and attendance did not change from the late teens into early adulthood both genetic and shared environment played a role in this lack of change.
- The origins of changes in religious attendance were divided almost equally between genetic factors, shared environment, and non-shared environment.

- When religious values changed both genes and non-shared environment played a role.

Button, T.M.M., Stallings, M.C., Rhee, S.H., Corley, R.P., & Hewitt, J.K. (2011). The Etiology of Stability and Change in Religious Values and Religious Attendance. *Behavioral Genetics*, 41(2), 201-210.



Image by: [graur razvan ionut / FreeDigitalPhotos.net](#)

CAP IN THE CLASSROOM

How one study participant used insights from CAP to change the way she teaches.

On a typical day in Kellie's 6th grade classroom you can find small groups of students working together on an assignment. One student may be talking through the main points of the project while another takes detailed notes. A third student draws a chart of next steps to take.



Image by: photostock / FreeDigitalPhotos.net

It is easy to see that the students in the group are coming at the task from different angles and contributing unique ideas. But these students aren't grouped by last name, reading ability, or test scores. Instead Kellie and her fellow teachers have used questionnaires which assess personality and genetic tendencies to help them create the groups.

Students fill out detailed questionnaires (sound familiar?) in order to assess different aspects of personality and behavior, including “thinking styles”. Thinking styles are broken down into 4 categories: conceptual, relational,

structural, and analytical.

On some assignments, students are asked to complete the task based on the strengths associated with their thinking styles, and on others they must use a new style. This allows them to practice different ways of thinking and to work within their groups to get support when a task is difficult.

According to Kellie, her years of experience as a CAP participant inspired her to learn more about her students. “CAP helped me dive into this and made me see my kids in a whole different way, which has revolutionized

my teaching style.”

By looking at the influences of nature and nurture on her students, Kellie feels that she has a greater understanding of their strengths and weaknesses, and what she can do to help them learn and succeed in school.

Kellie, who is now a 4th grade teacher, is working with her principal to pilot this approach in local high schools.