



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

|  |                                       |
|--|---------------------------------------|
| <b>Name(s)</b><br><b>Brendan Khoury</b>  | <b>Project Number</b><br><b>J0413</b> |
| <b>Project Title</b><br><b>Think Away: How Does Your Thinking Style Affect Your Ability to Simulate the Future?</b>  |                                       |
| <b>Objectives/Goals</b><br>My project was to determine which thinking style (Divergent (a more creative thinking style that sees many possibilities) or Convergent (a thinking style that focuses mainly on knowledge and mathematical based thinking (usually sees only the most obvious possibilities))) is better at simulating the future in the mind. I believe that the Divergent will be better at simulating the future because the Divergent can calculate more options.  |                                       |
| <b>Abstract</b>  |                                       |
| <b>Methods/Materials</b><br>Select 10 or more people (has to be even)(two people per game, approximately the same age, and never played Abalone before), one copy of Abalone game, one copy of the Uses of Objects Test (a test that determines your thinking style), instructions for Abalone (it can be a video). I had the subjects do the Uses of Objects Test to determine their thinking style. Then I paired the subjects up Convergent with Divergent, read off the rules of Abalone, and had them play until someone won 2 out of 3 games. I used the outcome of the games to determine which thinking style is better at thinking ahead. |                                       |
| <b>Results</b><br>The Divergent won 60% of the time, the Convergent won 20% of the time, and the 50/50s (a thinking style that is 40-60% of one thinking style and 40-60% of the other) won the other 20%. Also, the different thinking styles would win at different times. The Divergent would usually win the first game, lose the second and win the third. The Convergent, on the other hand, would usually lose the first game, win the second and lose the third.   |                                       |
| <b>Conclusions/Discussion</b><br>My conclusion is that the Divergent are better at simulating the future. Their ability to adapt and think their way around and through problems allowed them to better calculate future risk. Also, they were able to see multiple outcomes so they had better moves than the Convergent.   |                                       |
| <b>Summary Statement</b><br>Which thinking style (Divergent (a more creative thinking style that sees many possibilities) or Convergent (a thinking style that focuses mainly on knowledge and mathematical based thinking)) is better at simulating the future in the mind?   |                                       |
| <b>Help Received</b><br>The guy at Marbles: the Brain Store helped me find the Abalone game, my mother helped me with funding, typing, and gluing.   |                                       |