



# CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

<b>Name(s)</b> Sierra L. Courchesne	<b>Project Number</b> <b>J0404</b>
<b>Project Title</b> <b>Empathy and Social Perception: Gender Based or Not?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Differences between how females and males perceive social signals about feelings, intentions and motives of those around them and experience and display empathy for others is a topic of major social importance, especially in middle and high schools. It remains controversial and unclear whether better social perception and empathy are affected by gender or other contributing factors. The goal of this study was to determine whether in young preteens and teens these social abilities are affected by gender, other factors or both.</p> <p><b>Methods/Materials</b> Twenty-one 11-16 year olds were tested for social perception and empathy abilities. Each received 4 tests: Pre-Reading the Mind in the Eyes Questionnaire (self-rating of social perception); Reading the Mind in the Eyes (an objective, validated test of social perception by Baron-Cohen); Experimenter-Created Questionnaire (self-rating about daily activities created by S. Courchesne); and Zoll &amp; Enz Empathy Questionnaire (available online). Through these tests, gender differences and non-gender-related findings were measured, analyzed and discovered.</p> <p><b>Results</b> Females rated themselves as highly empathetic compared to males, consistent with the popular belief that females have superior social perception and empathy. However, self-rated empathy scores in females did not correspond with their scores on the objective Reading the Mind in Eyes test. Also, females and males had similar social perception scores on the objective Reading the Mind test (25.7 vs 25.0, respectively, out of 36). A higher objective score on Reading the Mind was found in those who value friendship and spend their free time interacting in social situations, regardless of gender. Across genders, the amount of electronic time one spends daily had no effect on social perception abilities.</p> <p><b>Conclusions/Discussion</b> Results supported my hypothesis that large amounts of social interaction time may increase a person's social perception abilities, regardless of gender. However, the hypothesis that females would score higher on both empathy and social perception tests proved to be only partly verified; females did score higher than males on a self-rating empathy questionnaire, but about the same as males on an objective test of social perception. Overall, social perception abilities of males and females appear to be more related to time spent socially interacting with others rather than to gender alone.</p>	
<b>Summary Statement</b> This experiment determines if higher empathy and social perception levels are due to gender or other contributing factors.	
<b>Help Received</b> I designed the experiment and one of the four tests within it myself and executed the study on my own. I looked up how to use statistical analyses on my data, got additional advice from my science instructor on statistical tests and then did them myself. My science teacher and parents gave feedback to improve my	