



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Casey M. Cousineau	Project Number J1308
Project Title How Will You React?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals While it is already known that distractions can affect a person's reaction speed, my project sought to verify that a person's reaction time is decreased while talking on a cell phone, and to quantify the amount of that decrease. By testing subjects' reaction times both on and off the cell phone, I was able to determine the impact cell phones have on a subject's reaction time. My goal is to use the results of my tests to educate people on the dangers of talking on the phone while driving.</p> <p>Methods/Materials The 30 participating subjects were all humans between the ages of 8 and 70. Each subject was given two distinctive reaction tests -- the BBC Sheep Dash reaction test and a "Ruler Drop" test. Each subject had to complete each test once while talking on the phone, and once while not on the phone.</p> <p>Results In both the BBC Sheep Dash reaction test and the Ruler Drop reaction test, the average speed of a subject's reaction time in seconds, was slower when she was talking on the phone. When the subjects were not talking to someone on the cell phone, the average reaction time was noticeably faster.</p> <p>Conclusions/Discussion My hypothesis states that while on the phone, a subject will take longer to react to something than when he or she is not on the phone. I found that while talking on the phone, subjects had worse reaction times than when they were not engaged in conversation, thus supporting my hypothesis. My project establishes that even when one thinks they have mastered the art of "multi-tasking," virtually any task becomes more difficult when the subject is engaged in a phone conversation.</p>	
Summary Statement How much impact does a cell phone conversation have on a subject's reaction time.	
Help Received My project required the help of several "helpers" who engaged my subjects in conversation. In addition, my teacher Ms. Kaufman provided guidance in structuring the report and my research. Then, my Mom gave the written report a final proofread (for typographical errors.)	