



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Samantha M. Castanien	Project Number J0303
Project Title To Blink or Not to Blink: Does Lying Affect Blinking in Adolescents?	
Abstract Objectives/Goals The objective of this experiment was to discover whether lying affects blinking amounts in adolescents and to see if these amounts differ between genders. Methods/Materials Nineteen subjects, with informed consent slips, were attached to a polygraph and were told to lie when asked about a certain number. Three tests were conducted that consisted of picking a number and lying about that number. Subject's blinking responses were recorded by video camera and analyzed later. Results The results from this experiment showed that there was a wide range of blinking amounts for the subjects who lied or told the truth. There seemed to be a measurable gender difference, with the boys blinking less than the girls, but not only when they were lying. Another interesting result from this experiment showed girls having a lower increase in the average gender blink rate per minute between liars and truth tellers than boys. Conclusions/Discussion The results from this project showed that blinking cannot be used as an indicator for lying. The wide range of blink amounts showed that the number of times a subject blinks depends on that specific person. It was shown that there was a measurable difference between genders and in general, when the subjects lied, the boys blinked less than the girls. However, it was discovered that the average gender blink rate per minute for boys was 9% higher than the average gender blink rate for girls when comparing liars and truth tellers within genders. While this difference was measurable in this experiment, because of the wide variation of blink amounts, it has no real affect in helping to identify a liar.	
Summary Statement Blinking is not a reliable method of identifying lying, since it is unique to each person and is not affected by gender.	
Help Received Detective Tim Hall of the San Diego Police Departement administered the polygraph tests. Mother and Father informed subjects about expectations during the polygraph testing. Mrs. Gillum arranged a room to use for testing at Thurgood Marshall Middle School.	