



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Nicole L. Sinno	Project Number J0315
Project Title Power of Persuasion: The Effects of Bias on Decision-Making	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Last year was an election year. I watched television commercials supporting and opposing various propositions and read arguments for and against the issues. It seemed the wording of the presented facts influenced my opinions. The purpose of this project was to see if a factual survey could be written to obtain a desired outcome, and document if opinions would change when participants were later presented with both sides of the issue.</p> <p>Methods/Materials I spent many hours researching three controversial topics: the legal age of driving in California, the use of genetic engineering for crops, and the purchase of foreign cars. I wrote six one-sided, factual paragraphs, three supporting the issues, and three opposing. I went through many revisions. I interviewed participants regarding prior knowledge for the three topics. I performed a total of 444 tests. The purpose of my first test was to see if the participants would be influenced when presented with one sided arguments. My second test consisted of introducing both sides of the issue to see if the participants would change their opinions once both sides of the argument were presented. In each test, the participants had to rate (1-10) how much they agreed with a final statement.</p> <p>Results I found that having prior knowledge biased the outcome. I focused on the topic that was not familiar to the students to more accurately assess the effects of my paragraphs alone. I evaluated the results. Students who read a paragraph supporting the use of GMOs scored a mean of 7.5, had a mode of 10 and a median of 9, indicating they agreed with GMO usage. Students who read a paragraph opposing the use of GMOs had a mean, median, and mode of 3. This meant they opposed GMO usage. After being presented with both paragraphs, the participant scores changed very little.</p> <p>Conclusions/Discussion According to the results, presenting only one side of an issue did manipulate thinking. It also appeared that once the participants had formed an opinion through reading the initial one-sided paragraph, even after reading both sides of the argument, their opinions rarely changed.</p>	
Summary Statement The purpose of this project was to see if a factual survey could be written to obtain a desired outcome and note if opinions would change when both sides of the issue were later presented.	
Help Received Thanks to my parents for their encouragement. Thanks to my science teacher for her guidance.	