



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Courtney M. Venable	Project Number J1720
Project Title The Power of Suggestion! Subconscious Response to Physical Suggestion	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project is to determine if children will subconsciously react to physical suggestion more often than adults. Based on my research of brain development, I hypothesize that children will react more often.</p> <p>Methods/Materials Identify 30 adults and 30 children (half male/half female) to test. Select 2 newspaper articles of common theme and equal length. Define 4 physical suggestions, e.g. yawning, to be performed while reading 1 of the articles. Write a script so that all subjects are asked the same questions and given the same instructions. Include a question on past head injury. Based on my research, injury to the brain's frontal lobe can cause a person to be more likely to react to physical suggestion. Head injury information on subjects can help determine if it is a factor in this experiment. Meet with subjects separately and follow script. Each subject serves as their own control. Read the first article to them and perform no physical suggestions. Observe subject's physical behavior. Read the second article while performing the 4 physical suggestions. Observe subject's physical behavior and any responses. Record observations with notebook and pen after reading is complete. Repeat procedures for all subjects.</p> <p>Results Of 30 adults, 2(6.7%) reacted to physical suggestions. Of 30 children, 19 (63.4%) reacted. Of 5 adults that had head injuries, 0 reacted to suggestions. Of 9 children that had head injuries, 6 (66.7%) reacted. Of 21 children with no head injuries, 13(61.9%) reacted.</p> <p>Conclusions/Discussion My conclusion is that children will react more often than adults to physical suggestion. My results support my research which states that the brain's corpus callosum fully develops by the age of 20. The corpus callosum is a band of nerves that connects both sides of the brain and controls intelligence, consciousness, and self-awareness. My results partly support my research on frontal lobe damage. None of the adults that had head injuries reacted to suggestions. The percentage of children with head injuries that reacted was slightly higher than those without. Either head injury or brain development could affect their reaction to suggestion. It is most likely that head injury was not severe enough to affect their behavior and that it was not a factor in the results of my experiment.</p>	
Summary Statement My project is about the effect of age and brain development on a person's subconscious reaction to another person's physical suggestion.	
Help Received Parents drove me to meet with subjects; Mom cut out colored matting for my board; Teachers allowed me to meet with children during class time.	