



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

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Project Title Testing the Accuracy of Human Lie Detecting Techniques	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The object of this experiment was to discover which indicators that show internal conflict are the most and least effective in detecting lies. The operational hypothesis was: if someone is lying, then one can tell by observing their behavioral traits and comparing them with indicators that show internal conflict.</p> <p>Methods/Materials Materials such as a video camera, ten basic interview questions, six test questions, list of the ten indicators that show internal conflict, an indicator grading sheet, a coin, and 80 participants, were needed. Participants were gathered and separated into four groups, an adult male group, an adult female group, a student male group, and a student female group. The interviewer asked the participant the ten basic interview questions in order to create a control group. Next, the participant was given a coin with a T on one side and an F on the other. The participant was to flip the coin before each of the six test questions. If the coin came up "T" the participant was to truthfully answer the question. If the coin came up "F", the participant was to lie to the question. The assistant recorded the result of each coin flip. This was repeated with each of the six test questions and then with the rest of the participants. Each participant was video taped. The interviewer would then re-watch the interview and, using the list of indicators that show internal conflict and the indicator grading sheet, would try to discern whether the participants were lying or telling the truth. The interviewer would then check with the assistant's records of the coin flips to see if the hypotheses were supported.</p> <p>Results The results show that different indicators work for different groups. However, there were some that remained consistently effective, such as indicators 7(a hand reaching to ear, mouth, or nose), 8(nervous movement of the feet and hands), and 9(blink rate increases).</p> <p>Conclusions/Discussion In all the groups, the total rubric score shows that the indicators are effective in detecting lies. This supports the hypothesis: if someone is lying, then one can tell by observing their behavioral traits and comparing them with indicators that show internal conflict. This experiment is a helpful aid in expanding our knowledge in the field of human lie detecting. It helps bring us one step closer to finding the truth.</p>	
Summary Statement Testing the accuracy of human lie detecting techniques.	
Help Received Dad loaned video camera; Participants who were interviewed	