

CALIFORNIA STATE SCIENCE FAIR 2002 PROJECT SUMMARY

Name(s)

Michaela P. Daniel

Project Number

J0309

Project Title

Which Hand Is More Sensitive?

hightiyos/Cooks Abstract

Objectives/Goals

My project was to determine whether the sensitivity of a hand has any relation to whether it is the dominant hand.

Methods/Materials

Informed consent was obtained from 44 randomly selected people ranging in age from 8 to 67. Each person was asked to trace his/her hand palm side up on a piece of gridded paper. The same was done for the other hand. Each person indicated whether they were left or right handed.

A lamp and a racquet were positioned in a box so that the light shining through the racquet projected a grid pattern onto the subject's palm. The box prevented the subject from viewing his/her hand. Next, the subject's palm was lightly poked in three different places, using a different object (out of three)each time. The subject recorded the location and material of each touch on the gridded paper on which s/he traced his/her palm. The subject then placed the other palm in the lamp box, undergoing the same procedure as the first palm.

Results

The right handed people had more sensitivity in their right hands, the left handed people in their left, but what I found was most interesting was that the left-handed people showed more sensitivity overall, providing the most correct responses.

Conclusions/Discussion

The dominant hand is more sensitive to touch than the other hand.

Summary Statement

My project is about how the dominance of hands affects the sense of touch.

Help Received

My mom helped provide subjects, and my dad helped me put the lamp box together.