



California Science Center
CALIFORNIA STATE SCIENCE FAIR
 2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Sarah M. Toews	Science Fair Use Only
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) Are You One-Sided? Determining Hand, Foot, Eye and Ear Dominance.	<h1 style="margin: 0;">J1533</h1>
Preferred Category (See page 5 for descriptions.) 2 - Behavioral Sciences	Division <u>J</u> Junior (6-8) <u>J</u> Senior (9-12)
Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.	
Objective: My objective was to determine the percentage of people that have their dominant foot, eye and ear on the same side as their dominant hand.	
Materials and Methods: I gave 50 randomly selected people a series of tests in order to determine dominance in each area. Hand tests: Subjects wrote their name, cut paper with a scissor and threw a ball. Foot tests: Subjects kicked a ball, stepped over a piece of string and stepped on a coin. Eye tests: Subjects looked through a cardboard tube, pointed at a distant object closing 1st one eye and then the other and while looking through a small hole in a paper brought the paper towards their face. Ear tests: Subjects cupped one ear to aid in hearing, held one ear against a wall as if listening and listened on the telephone.	
Results: 86% had their dominant foot on the same side as their dominant hand. 74% had their dominant eye and 80% had their dominant ear on the same side as their dominant hand. 48% were completely one-sided.	
Discussion: The test results show that the majority of people had foot, eye and ear dominance on the same side as their dominant hand but they displayed all sorts of dominance arrangements with only 48% having dominance all on the same side. I learned through my research that lateral dominance patterns can effect the way people learn and process information and some scientists believe there is a correlation between dominant sides and learning disabilities such as ADD, ADHD and dyslexia. By knowing someones dominance pattern it may be possible to introduce new, integrative learning activities that can help people process and learn new information.	
Summary Statement (In one sentence, state what your project is about.) Determining what percentage of people have their dominant foot, eye and ear on the same side as their dominant hand.	
Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. Mom supervised formatting of charts and graphs and helped explain some of the research.	