

CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s)

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Project Number

J0703

Project Title

Steer, Don't Veer

Abstract

Objectives/Goals

My objective was to determine if human beings tend to walk in a circle while blindfolded and, if so, whether certain factors (such as gender, age and right- or left-handedness) tend to affect the walking patterns of blindfolded people.

Methods/Materials

I set up a 20-meter walking course on a flat sidewalk, which I marked with a straight chalk line. I blindfolded each of 20 volunteers and asked them to walk in a straight line for 60 seconds. I measured the distance each volunteer walked and the distance he or she deviated from the straight line. I then covered the straight line with a dark tarp and asked each person to walk in a straight line without the blindfold for 60 seconds. I recorded each volunteer's age, gender and right- or left-handedness. I conducted three separate days of 40 trials, each a week apart.

Results

The blindfolded volunteers veered from the straight line by an average of about 3.5 meters over the three trials. The same non-blindfolded volunteers deviated by an average of 0.86 meter from the chalk line. Most of the subjects strayed more from the straight line the farther they walked.

Conclusions/Discussion

My results did not directly show that blindfolded people tend to walk in a circle. However, I believe the results suggest that if I had allowed the volunteers to walk for a longer distance, they would have walked in a circle. After only 60 seconds of walking blindfolded, volunteers deviated from the straight line by an average of more than 15% of the total distance they walked. A person's gender or right- or left-handedness did not seem to affect his or her ability to walk in a straight line, but older age did seem to help a person to walk straight. Practice did not seem to help volunteers to walk straight while blindfolded.

Summary Statement

Will people tend to walk in a circle while blindfolded?

Help Received

My father helped to design the walking course and to measure the distance that volunteers strayed from the straight line. My mother provided the bandana used to blindfold the volunteers and placed the bandana over the eyes of each volunteer. She also helped me to recruit volunteers for the study.