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*For Every Action, What's Your Reaction?*

Most daily activities' outcomes are altered by an individual's reaction time, possibly making the difference between an inconvenience and death. Hundreds of independent studies indicate reaction times are affected by multiple variables, most confirming age and gender, but none provide definitive conclusions about developing reaction times or outside influences. Therefore, I chose to test reaction times based on physical characteristics and habits. I hypothesized that most people would have a natural reaction time of less than half a second, with their dominant hand faster, and that habits would play a vital role, proving that reaction times can be developed or influenced by more than age and gender. To test this, I created a device that measures the time between when a light is turned on and when the test subject reacts to that light by pressing a button. Then I had each participant answer a brief survey before engaging in six hand-eye combinations while reacting to the light. The data analysis produced unexpected correlations between hair color, eye color, and hand-dominance, and confirmed the less than half second reaction time hypothesis. Results also supported the notion that reaction times can be developed and influenced by outside stimuli, including habits such as playing sports or working on the computer, and that physical characteristics, such as age and gender, produce faster reaction times. Ultimately, while my results lead to more questions than they provide answers, they are supported by other studies and indicate associations worthy of further consideration.