



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

| | |
|---|---------------------------------------|
| Name(s) Sarah R. Siskind | Project Number S0399 |
| Project Title The Effect of Incentive on Temporal Perception | |
| Objectives/Goals Abstract <p>Time is killed, crunched, beaten, made, or wasted. Incentive is likewise as fundamental as time. Incentives and temporal perception influence human behavior tremendously. Consequently, any correlation between the two is essential.</p> <p>How humans record and keep track of time falls under the broad areas of physics, neurology, and even philosophy. Neurologically, the perception of time mostly is controlled by the temporal lobes, or lobus temporalis. In terms of physics, time is relative. For example, time changes with the speed of light in respect to a person who is standing still as opposed to a person moving with the device measuring the time. A very common theory is that time is judged by the succession of events or sensations. Philosophically speaking, Perception of time is how we make routines, organize our lives, and help comprehend existence itself.</p> <p>Some characteristics of an incentive are stimuli that motivate the performer to behave differently. The extent to which one will go for an incentive is attributed to the expectancy-value theory, which is expressed as $B = f(E \times V)$. Humans perform with either a motive for success, a motive to avoid failure, or both. A lot of one's performance with motivation is determined by the expectancy to achieve the goal.</p> <p>Without our temporal perception, we are inept. On September 13, 1848, Phineas Gage, a railroad foreman, was in a freak accident where an iron rod pierced his cheek and protruded from his skull. His prefrontal lobes were severely damaged and his behavior became aggressive and impulsive. His perception of time was also damaged. Without his temporal perception and other key functions, Phineas became irrational and developed behavioral problems like impaired decision making. He survived the accident, but died thirteen years later from epileptic seizures. By understanding the principles of time, perception, and incentive we will further our studies of neurology and physiology and unearth the basis to some of our behavioral impulses.</p> | Abstract |
| Summary Statement My project is about the effect of incentive on how one perceives time. | |
| Help Received Godmother helped with the idea, parents and teacher helped edit | |