



Phineas Gage

No book about the brain is complete without a mention of the famous Phineas Gage. (Although mine appears to be!) The popular Phineas Gage was a 25-year-old construction worker when he rose to fame. He had been a respected friend to the men he worked with and was good at his job. One day there was an explosion while Gage was tamping powder with a fuse in a hole (before sand had been poured in). The rod weighed almost a stone, was 3 feet seven inches in length and one and a quarter inches in diameter. As it flew into the air it pierced Gage's left cheek, going through the base of the skull, traversing the front of his brain and exiting at high speed out of the top of his head.

The first thing that amazed bystanders was that Gage was able to walk, talk and 'be' normal (remember that part of his brain was now lying some distance away on the end of a rod). The second thing is that he survived the predictable infections that, in 1848, were treated without antibiotics.

Although physically intact, his previous likeable personality was not. He became "fitful, irreverent, indulging at times in the grossest profanity which was not previously his custom, manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinacious obstinate, yet capricious and vacillating, devising many plans of future operation, which are no sooner arranged than they are abandoned...A child in his intellectual capacity and manifestations, he has the animal passions of a strong man".

The damage to his brain we can see (thanks to the skull being dug up, examined, and scanned) was in the prefrontal cortices. His personality was changed forever and he was unable to make good choices.