

Here is a fundamental question. Why is it that the children of tall parents tend to be tall, but not as tall as their parents? Why do children of short parents tend to be short, but not as short as their parents? Conversely, why do parents of very short children, tend to be short, but not as short as their child? And the same with parents of very tall children?

We can try this with anything that is measured with error. Why do the best performing athletes this year tend to do a little worse the following? Why do the best performers on hard exams always do a little worse on the next hard exam?

These phenomena are all examples of so-called **regression to the mean**. Regression to the mean, was invented by Francis Galton in the paper "Regression towards mediocrity in hereditary stature" The Journal of the Anthropological Institute of Great Britain and Ireland , Vol. 15, (1886). The idea served as a foundation for the discovery of linear regression.