

The Neyman-Pearson Hypothesis Test



Jerzy Neyman (April 16, 1894 – August 5, 1981); was a Polish mathematician and statistician



Egon Sharpe Pearson
(11 August 1895 – 12 June 1980)
son of Karl Pearson
like his father, a British statistician.

The Neyman-Pearson hypothesis test is a statistical framework used to make decisions about two competing hypotheses: the null hypothesis (H_0) and the alternative hypothesis (H_A). This method is particularly important in hypothesis testing because it provides a systematic way to control the probability of making errors (commonly called Type I and Type II errors.)

Neyman's and Pearson's approach introduced the concept of confidence interval and was a revision of Sir Ronald Fisher's null hypothesis testing. The differences in the methods fueled a personal dispute and a set of fairly intemperate responses by Fisher, who did not take criticism very well. For more details see: <https://www.youtube.com/watch?v=s1EoBktRK9Q&t=7s>