

- Controlling for Type II errors is as important as controlling for Type I errors. The probability of a Type II error is known as Beta (β).
- The probability of arriving at a Type II error (not finding a difference where there is one) is related to the experimental power of your design.
- For any experiment, Power = $1 - \beta$

Is Power That Big a Deal?

- Cohen (1992) describes why power *is* such a big deal (and what can happen if experiments do not have sufficient power). Low powered studies have a lowered chance of finding a real effect, and also a higher chance of suggesting an effect is present when it is not.
- Reports the results of a review of 1960 volume of Journal of Abnormal and Social Psychology that he conducted at the time and the results of a Sedlmeier and Gigerenzer (1989) review of a 1984 volume of of the same journal.
- In 1960, the average power of the experiments reported in JASP to detect medium effect sizes was 0.48. In 1984, it was 0.25 (in other words only a 25% chance of finding an effect even if it was there!)