

Reducing α to lower Type	I .
error will move	the critical value, p^* ,
and have the effect of increasing	
the probability of a Type	<mark>II</mark>
error,, and correspondingly	$\frac{\beta}{\beta}$
reducing	the power.
Effect size	$p - p_0$ How far the truth, p , lies from the null hypothesis, p_0 .
The larger the effect size, the	
the chance of making a	<mark>smaller</mark>
Type error and the greater	II
the of the test.	power power
Whenever a study fails to reject	
its null hypothesis,	the test's power comes into question.
H_0 may be false but our test is	too weak to tell.
If we reduce Type I error, we	
automatically must	increase
Type II error. But there is a	
way to reduce both:	we need to make both SDM curves narrower → by decreasing the
	spread (SD) \rightarrow by increasing <i>n</i> (However the benefits are muted by
	the Law of Diminishing Returns)
The gives us the	hypothesis test
answer to a decision about a	
parameter; the	confidence interval
tells us the plausible values of	
that parameter.	
You can approximate a	hypothesis
by examining the confidence	
interval. Specifically, a	a two-sided hypothesis test with an α level of $\frac{100 - \text{C}\%}{100 + \text{C}\%}$
confidence level of C%	a and aided hypothesis test with an allevel of 1 (100 CO)
corresponds to	a one-sided hypothesis test with an α level of $\frac{1}{2}(100-C\%)$