Re: Hypothesis Testing: the TEST STATISTIC

Source: http://sci.tech−archive.net/Archive/sci.stat.math/2006−08/msg00736.html

- *From*: "Reef Fish" <Large_Nassau_Gr0uper@xxxxxxxxx>
- *Date*: 19 Aug 2006 10:44:38 −0700

Kevin E. Thorpe wrote:

> This past week I was heavily involved in a workshop we
> gave, so used the few minutes I had to try to post useful
> replys to posters, rather than waste my words on one
> who refuses to learn.

I wonder who might be referring to. That keeps them
guessing, wouldn't it? :−)

> Now, just to bring this back to statistics. I did not read
> your lecture in great detail, but from my quick skimming
> of it, it appeared to follow the Neyman−Pearson theory.

That's the only theory I know, directly from textbooks.

> I would be curious to here your thoughts on the
> Fisherian approach.

Fishy. :)

> As I understand it, Fisher's
> approach involved testing a null hypothesis with no
> explicit alternative (I know you'll correct me if I've
> misunderstood).

I am talking your word for it about his approach. Unless
he always does a two−tailed test (which would not make
sense) , it also would not make sense for a hypothesis
tester NOT to know which tail of a one−tail test is the
alternative. In the problem of two proportions from two

indepedent populations, lets say p1 is the proportion of students in non−honor courses exceeding the national average in a national test after the course; and p2 is the proportion of students having taken an honor course in calculus and exceeded the national average when taking the same national test.

The natural null hypothesis is p1=p2. A skeptic of the efficacy of the honors course may use a two−tailed alternative, but what would Fisher do if he wants to test the hypothesis that the honor−course students have a have a HIGHER proportion of above−average scores in the national test? (Assuming your understanding of Fisher's test of a null hypothesis is correct).

I may be old, but not old enough to be have been burdened by Fisher's old−fishioned views (especially that of fiducial intervals). :−)

−− Reef Fish Bob.

.