Mc - Nemar's Test

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Compare the Performance of two Model.

- → Non parametric Test
- → Repeated Measures
- → dependent variable
- → Similar of two variables

⇒ Predication b/w the two classfier Model.

→

A	B
8	b
2	4
3	1

⇒ lots of data

↓

All data is Matched.

→ Test able to compare the performance of two classfier on N items.

Assumptions

1. Random Sample. → Each data select Equal opptunity.
2. Independence →
3. Mutually exclusive grouped data → disjoint Null value

MC-Nemar's Test Statistic

$$\chi^2 = \frac{(b-c)^2}{(b+c)}$$

continuity correction :-

$$\chi^2 = \frac{(|B-C|-1)^2}{B+C}$$

(Ex) :-

Model		Model: correct	Model: wrong
	correct	90 (A)	10 (B)
	wrong	30 (C)	70 (D)

$$\chi^2 = \frac{(b-c)^2}{(b+c)} = \frac{(30-10)^2}{(30+10)} = \frac{400}{10} = 10//.$$

Predication Model :- 4 Types :-

- False positive
- True positive
- True Negative
- False Negative.

} Counts of Singal mode