

## In d ing ICE-GB and ICECUP

- ◆
  - Spoken and written: 60% spoken • 500 2,000-word texts = 1Mw
- ◆
  - Structural markup, tagging and parsing (based on Quirk 1985)

## U y

- ◆
  - r r l v ls of browsing: - ov rvi w - t xt - s nt nc
  - S arc by sociolinguistic variabl , t xt string or F F
- ◆
  - An intuitiv mod l-bas d grammatical qu ry syst m
- ◆
  - Suffici ntly xpr ssiv for a r ug rang of xp rim nts
  - Ask qu stions w could not consid r b for
  - No programming r quir d...
  - ...but w still av to t ink...

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# S a i i and xp im n al d ign



- A: o g n ralis vid nc from a corpus to "R al Languag "



- $e$  ,  $e$  .
- A hypothesis consists of an
  - independent variable ( )
  - dependent variable ( )
- i . Do s t valu of t  $V_r$  av an ff ct on t valu of t DV?
- $e$  = t pr diction t at t r is ho ff ct.



- Q s "w om" us d mor oft n t an "w o" in
-

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## S a i i and xp im n al d ign (II)



• **e e q e** can tell you how common a word is in the corpus. But the reason that it is there might depend on many irrelevant factors.

• **e e e q e** focuses on variation where there is a choice. It tells you how often the speaker or writer chooses to use one word over another. It lets us focus on a specific type of **e e**.



*Ca u L, u, c*

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□ n - lid xp im n g id

- ◆
- ◆
- ◆
- ◆

	d, p, nd, nt variabl			
		, ^	,	

- ◆

• for xampl (abov ) do sp ak rs positiv ly f oos ?

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# Performing a chi-squared test

## ◆ $\chi^2$

- cf. observed vs expected distributions:
- Simplified, specific value of DV: on obs. column (e.g. )
  - Observed **O** = specific value of DV
  - Expected **E** = total value of DV, scaled down
- OR all values of DV: sum all columns
- Formula:

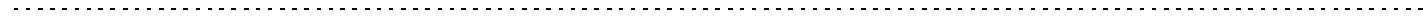
- Test: is it significant or not an alternative value  $\chi^2$ ?

## ◆

- degrees of freedom  $\chi^2$ 
  - or  $w_r$

.....







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## Exercise 2: gamma $\Rightarrow$ gamma



- Does the 'mood' of a clause predict its transitivity?
- How do the elements within a clause or phrase affect another?



- We must specify the (g. t. clause or phrase)
  - We have to consider unmarked cases, g. d i
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