

Latin Squares

Psychology 3256

Introduction

- We have discussed procedures for dealing with a nuisance variable
 - blocking
 - repeated measures
- You could also use it as a covariate (ANCOVA)

What if you have 2 nuisance variables....

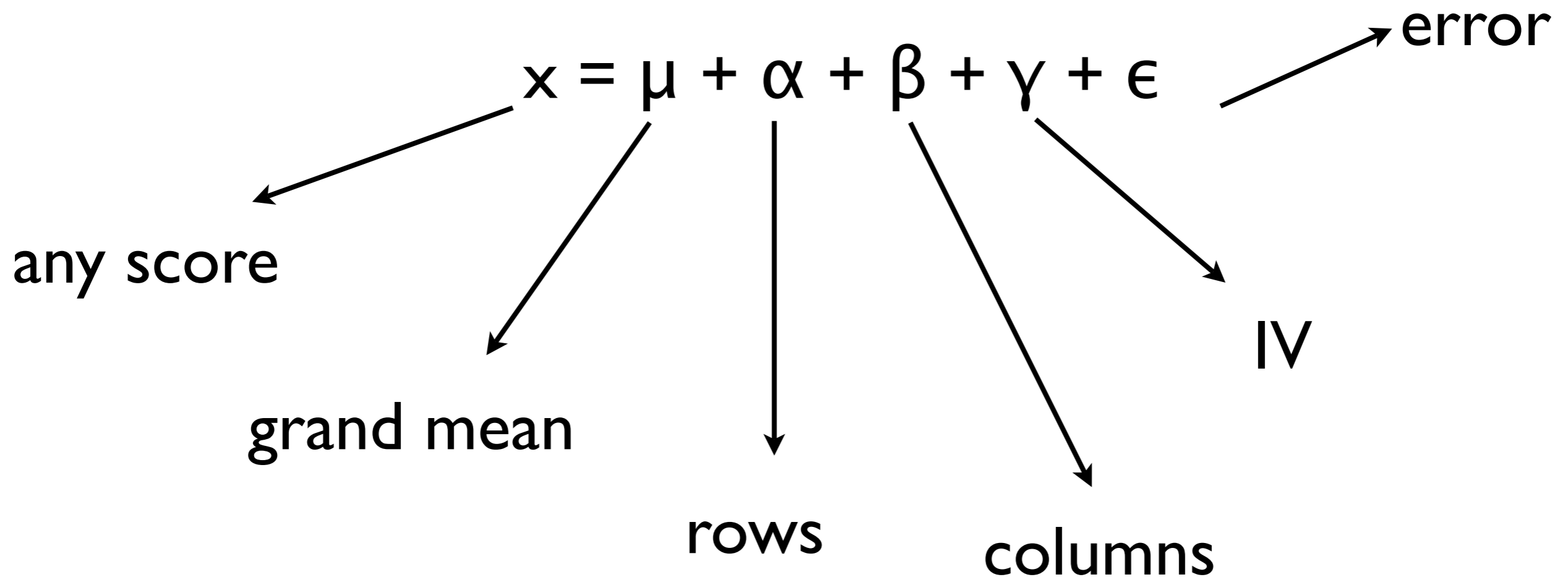
- So now you have two nuisance variables AND a third variable (the IV you are interested in) to deal with
- You have to sort of put them together
- Put one nuisance variable in row like usual, and another in columns!!!!
- ok it is not that exciting, I'm just saying..

You get something like this

- A, B, C, D are the four levels of the IVs
- Each level occurs in each of the four positions
- Each row and each column contains each level of the IVs

	1	2	3	4
1	A	B	C	D
2	D	A	B	C
3	C	D	A	B
4	B	C	D	A

You need equal
numbers of rows,
columns and IV levels



ANOVA

SV	df
rows	$(p-1)$
columns	$(p-1)$
IV	$(p-1)$
residual	$(p-1)(p-2)$
TOTAL	$N-1$

conclusion

- These can be useful if you can meet their rather stringent assumptions
- no interactions
- equal number of levels of rows, columns and IV