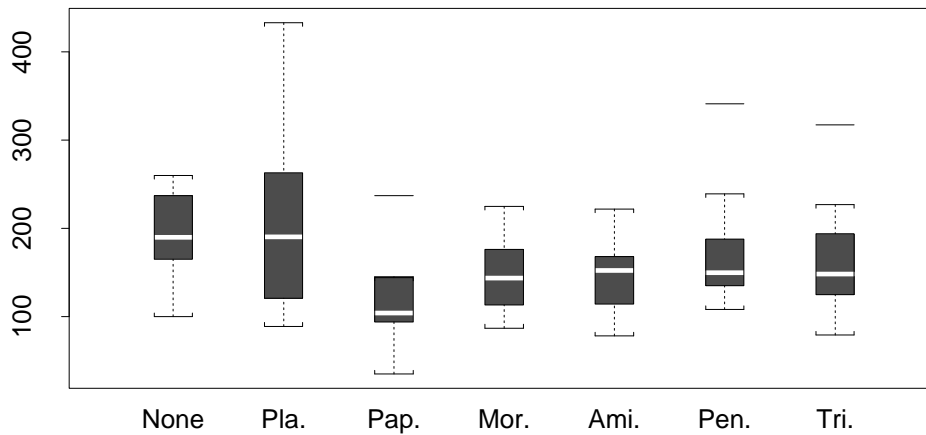


Comparing Means from Cross-classified Samples

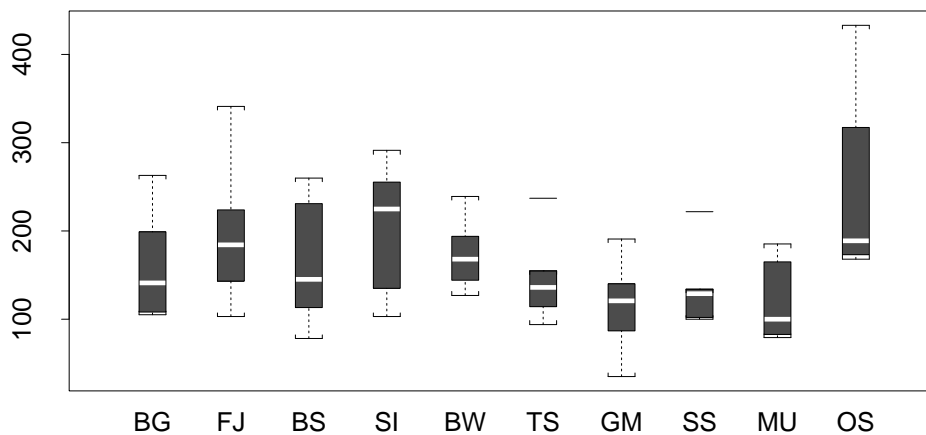
Example 1

In a study of drugs for relief of itching, 10 male subjects had itching induced on 7 different days, with a different drug applied on each day. Duration of itching was recorded.

Grouped by Drug



Grouped by Subject



Drug and Subject Means

```

-----
drug | mean(itch)
-----+-----
None |      191
Pla. |     204.8
Pap. |     118.2
Mor. |      148
Ami. |     144.3
Pen. |     176.5
Tri. |     167.2
-----
    
```

```

-----
subject | mean(itch)
-----+-----
BG |    161.571
FJ |    196.571
BS |    158.714
SI |      200
BW |    173.286
TS |      143
GM |    115.286
SS |    134.286
MU |    116.571
OS |    243.571
-----
    
```

Analysis of Variance Table

Number of obs = 70 R-squared = 0.4832
 Root MSE = 55.6327 Adj R-squared = 0.3397

Source	Partial SS	df	MS	F	Prob > F
Model	156292.60	15	10419.5067	3.37	0.0005
drug	53012.8857	6	8835.48095	2.85	0.0173
subject	103279.714	9	11475.5238	3.71	0.0011
Residual	167129.686	54	3094.99418		
Total	323422.286	69	4687.2795		