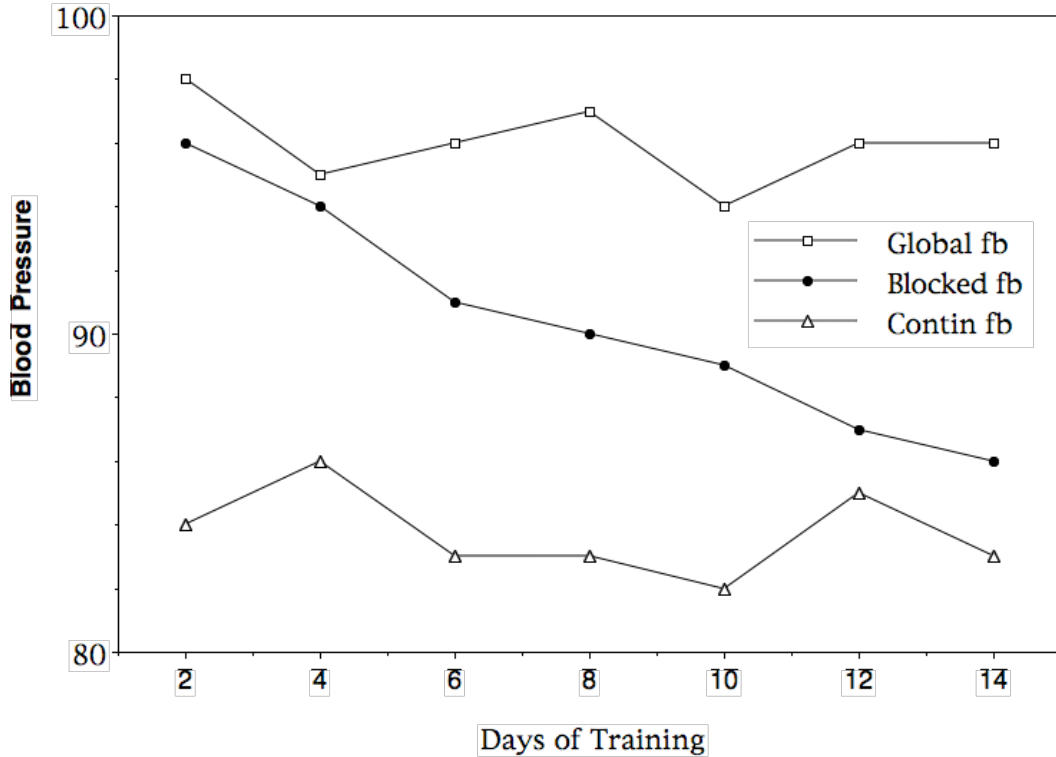


SIMPLE MAIN EFFECTS. Biofeedback training example.



6 Ss per day/feedback cell. These are cell totals, not means (cell means are given in a sep table and in the Figure above).

DAYS:	2	4	6	8	10	12	14	FB TOTS	$\bar{Y}_{Fj}$
GLOBAL FB	588	570	576	582	564	576	576	4032	96.00
BLOCKED FB	576	564	546	540	534	522	516	3798	90.43
CONTINUOUS FB	504	516	498	498	492	510	498	3516	83.7
DAY TOTS	1668	1650	1620	1620	1590	1608	1590	11346	
$\bar{Y}_{Dk}$	92.67	91.67	90.00	90.00	88.33	89.33	88.33	$\bar{Y}_T = 90.05$	

ANOVA	Source	df	SS	MS	F	<p
	Mean	1	1021680.3	1021680.3	77400.00	.001
	Day	6	285.7	47.6	3.61	.01
	Feedback	2	3178.8	1589.4	120.41	.001
	DF	12	309.2	25.8	1.95	.05
	S/DF	105	1386.0	13.2		

$$SS_{D @ F_j} = [ \sum (DF_{jk})^2 / n ] - F_j^2 / dn$$

$$SS = [D] - [T] \quad \text{Compare!}$$

$$= \sum D_k^2 / fn - T^2 / dfn$$

Suppose we compute all three of the  $SS_{D@F_j}$ :

$$SS_{D@F_1} = [588^2 + 570^2 + 576^2 + 582^2 + 564^2 + 576^2] / 6 - 4032^2 / 42 = 60.0$$

$$SS_{D@F_2} = [576^2 + 564^2 + 546^2 + 540^2 + 534^2 + 522^2 + 516^2] / 6 - 3798^2 / 42 = 466.3$$

$$SS_{D@F_3} = [504^2 + 516^2 + 498^2 + 498^2 + 492^2 + 510^2 + 498^2] / 6 - 3516^2 / 42 = 68.6$$

#### NEW PARTITION

	Source	df	SS	MS	F	<p
	$SS_{D@F_1}$	6	60.0	10.0	.76	ns
	$SS_{D@F_2}$	6	466.3	77.7	5.89	.001
	$SS_{D@F_3}$	6	68.6	11.4	.87	ns
	S/DF	105	1386.0	13.2		

#### QUESTIONS:

1. What is the relation between the df for the  $\sum D @ F_j$  and the df in the original anova table?
2. What is the relation between the  $\sum SS_{D @ F_j}$  and the SS in the original anova table?

		Cell means $\bar{Y}_{DFjk}$						
		Day						
		2	4	6	8	10	12	14
FB	Global	98	95	96	97	94	96	96
	Block	96	94	91	90	89	87	86
	Contin	84	86	83	83	82	85	83