

# Errata

## *The Theory of Design of Experiments.*

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Thanks to Radu Craiu, Hyo-Duk Shin, David Oakes, Martin Bilodeau

- p.37: Rosenbaum (1999) should be Rosenbaum (1999b). It is missing from the bibliography: the citation is  
Rosenbaum, P.R. (1999b). Choice as an alternative to control in observational studies. *Statist. Sci.*, **14**, 259–304.
- p.45: Eqn (3.12) and (3.13): remove bars on  $Y_{T_s}$  etc.
- p.55: Eqn (3.39): Delete leading  $r$ , also the last term in the sum should be  $SS_{L_r^{(v-1)}}$ , not  $SS_{L_r^{(v)}}$ .
- p.56: The cubic contrast for 4 levels is  $-1, 3, -3, 1$ .
- p.59: Eqns (3.44) and (3.45):  $\bar{z}_T$ . and  $\bar{z}_C$ .
- p.63: Exercise 3(b): mean  $\nu + \Delta$  and  $\nu - \Delta$ .
- p.72: First row for  $k = 4$  should read 4 5 5 4 20.
- p.103: Table 5.2, 3rd row for protein 1 should be 6893 6961 6927.
- p.104: Figure 5.1 legend incorrect: it should be Figure 5.1 Plot of mean weights (g) to show possible interaction. Soybean, Lev.f=1 (Solid); Soybean, Lev.f=0(dashed)
- p.108:  $\bar{Y}_{ijs}$  should be  $Y_{ijs}$ .

- p.110: The variance of treatment difference is  $\tilde{\sigma}^2$ .
- p.125: Reference in Table 5.11 should be to Exercise 5.5. The line for the fourth treatment should read  $-1 - 1 + 1 + 1 + 1 - 1$ .
- p.130: The second set of additional confounded interactions is  $BDEF, ACDF, ABCE$  and  $CEF$ . The pooled estimate has 16 degrees of freedom.
- p.137: The estimate for  $E$  has  $-Y_5 + Y_6 - Y_7 + Y_8$ .
- p.140: On the last line, the 2nd block should contain  $a, ab$  and  $ab^2$ .
- p.160: Table 6.16, row 12 should read: 5084 5322 5203. The source for the data is Logothetis, N. (1990).
- p.161: In Table 6.17 numbers are times  $10^3$  not  $10^6$ . In Table 6.17 the degrees of freedom for the whole unit error is 5, not 2.
- p.163: Biblio notes, penultimate paragraph: “The three papers give many more...”
- p.164: Exercise 4: “by writing, for example, 1,  $Y$ ,  $XY$ , and  $Y$  for the four levels”; in part (a) delete “therefore also”
- p.188: biblio notes last sentence Niederreiter
- p.275: third line of S-PLUS code should read `rm(potash.strength, fnames`  
`...`
- p.279: line 4 and 5: `contrasts(tmt)` should be replaced by `contrasts(potash.tmt)`.  
 lines 4, 5, 13, 14: Replace `tmt` by `potash.tmt` in the code.
- p.282: The block totals are obtained by `B = tapply(weight,chick.df$blk,sum)`
- p.284: The following code defines the matrices  $S$  and  $B$ :  
`> S = matrix(tapply(expansion, tmt, sum))`  
`> B = matrix(tapply(expansion, day, sum))`  
 The second last line in the code should be `t(Q)%*%ginverse(C)`
- p.289: Data is in Table 5.11 not Table 5.8. Figure C.1: the effect CD is aliased with AB so should not have been plotted Reference to Exercise 5.6 should be to Exercise 5.5; similarly in list of tables on p.311.

- p.290: Data is in Table 5.11, not Table 5.8. There is a mistake in the code in Appendix C in reading the data from Table 5.11, and the results printed in Appendix C are not consistent with the data in the Table. This has been corrected in the new Appendix.
- p.292: The reference should be to Table 6.9, not Table 6.8, for the split unit.
- p.294: Wafer experiment preamble: The over-etch time is the subplot treatment.
- p.296: Anova table splitting sums of squares: this should have used polynomial contrasts to give linear and quadratic components; corrected in the new Appendix
- p.297: In the web site references for MASS3 and statlib, delete `{\tt }` and `}`.
- p.306: Niederreiter (and is in wrong place)
- p.308: Rosenbaum (1999b) is missing: should be Rosenbaum, P.R. (1999b). Choice as an alternative to control in observational studies. *Statist. Sci.*, **14**, 259–304.
- p.315: Niederreiter (and is in wrong place)