
ERRATA

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Corrections

In the following, the page numbers refer to the hard copy.

1. Page 6: “The VGAM family uninormal() implements (1.3)–(1.4),” should be “The VGAM family uninormal(zero = NULL) implements (1.3)–(1.4).”

2. Page 6, Eqn.(1.27):

\[
\beta(j)k = \log \frac{\Pr(Y = j|x_1, \ldots, x_k - 1, x_k + 1, x_{k+1}, \ldots, x_p)}{\Pr(Y = j|x_1, \ldots, x_k, x_{k+1}, \ldots, x_p)}
\]

is wrong. It should be

\[
\beta(j)k = \log \frac{\Pr(Y = j|x_1, \ldots, x_k - 1, x_k + 1, x_{k+1}, \ldots, x_p) - \log \Pr(Y = M + 1|x_1, \ldots, x_{k-1}, x_k, x_{k+1}, \ldots, x_p)}{\Pr(Y = M + 1|x_1, \ldots, x_{k-1}, x_k, x_{k+1}, \ldots, x_p)}.
\]

3. Page 27, Section 1.5.2.5: “. . . because males just born . . .” should be “. . . because females just born . . .”.

4. Page 30: Package zelig should be Zelig.

5. Page 41: Delete “= ∂ℓ/∂β” from equation (2.21).

6. Page 52 (Fig. 2.4 caption): mcycles should be mcycle. Similarly for p. 87 (Ex. 2.17) and p. 586 (index).

7. Page 65 (Eqn. 2.57): the subscript \( q \) should be \( Q \):

\[
f(x) = \sum_{s=1}^{K+Q-1} \beta_s B_{s,Q}(x),
\]

8. Page 113–4, Example 2, which includes Figure 3.1: We really want to fit the model

\[
\Pr(Y = j) = \frac{\exp[\beta(j)1 + f^*_1(x_{i2j}) + \beta^*_1 x_{i3j} + \beta^*_1 x_{i4j}]}{\sum_{k=1}^{M+1} \exp(\eta_k)}
\]

for some smooth function \( f^*_1 \) and for \( j = 1, 2, 3, 4 = M + 1 \). That is, we allow the effect of \( x_2 \) to be nonlinear. The reason for this is greater interpretability. But what is actually fitted is \( h^*_{12}(x_{i2j} - x_{i24}) \) for some function \( h^* \); this is less interpretable. See the complements for the correction.
9. Page 169, the line just prior to Section 5.2.1: “so that $H_2 = I_M$” should be “so that $H_2 = 1_M$”.

10. Page 177, Section 5.5.2.2: first paragraph: “…or COZIGAMs, and there was an R package by the same name”. Evidently COZIGAM was removed from CRAN in mid-2012.

11. Page 257, midway: One of the terms for Fit3 is $\text{sm.poly}(\text{sm.scale}(x4), 2, \text{raw} = \text{TRUE})$.

12. Page 328, Figure 11.3: $1.92 \approx 3.84/2 \approx \frac{1}{2} \chi^2_1(0.05)$ should be used to obtain the LRT 95% confidence interval. Evidently, $3.84 \approx \chi^2_1(0.05)$ had been used. See the corrected figure.

13. Page 315, Exercise 10.10: binom2.or(exchangeable = TRUE, zero = NULL) is correct, rather than binom2.or(exchangeable = TRUE, ZERO = NULL).

14. Page 327: Package COUNTS should be COUNT.

15. Page 346, Equation (12.4) can be better written

$$
\frac{1}{\theta_2} f \left( \frac{y - \theta_1}{\theta_2} \right)
$$

16. Page 386, equation (14.5):

$$
- E \left( \frac{\partial^2 \ell_i}{\partial p_ij} \right) \quad \text{should be} \quad - E \left( \frac{\partial^2 \ell_i}{\partial p^2_{ij}} \right)
$$

17. Table 14.1, Page 388: Pr($Y \leq j$) has propodds(reverse = FALSE) and not propodds(reverse = TRUE).

18. Repeatedly throughout the text: “an RR-VGLM” should be “a RR-VGLM”.

19. Section 14.4.2, Page 401 bottom: the code chunk ends with

```r
matplot(with(pneumo, let), predict(np.npom.pneumo, untransform = TRUE),
       type = "b", col = 1:3,
       ylab = "Pr(Y>=j), j = 2, 3", pch = c("2", "3"),
       xlab = "Log exposure time", main = "(c)"
)
```

That is, arguments ylab and pch have been changed.

20. Table 18.5, Page 508: interleave.VGAM(L, M) is now interleave.VGAM(.M, M1). The code in the book will work unchanged because the change in argument names is a compromise solution.

21. Page 547, last displayed equation:

$$
(\hat{\theta} - \theta_0) \mathbf{I}_O(\theta_0) (\hat{\theta} - \theta_0) = U(\theta_0) \mathbf{I}_O(\theta_0) U(\theta_0)
$$

should be

$$
(\hat{\theta} - \theta_0) \mathbf{I}_O(\theta_0) (\hat{\theta} - \theta_0) = U(\theta_0) \mathbf{I}_O(\theta_0)^{-1} U(\theta_0)
$$
22. Page 555, Eqn. (A.50): the sign before the summation is “−” rather than “+”, i.e.,

$$
\psi(x) = \log x - \frac{1}{2x} - \sum_{k=1}^{\infty} \frac{B_{2k}}{2k x^{2k}} = \log x - \frac{1}{2x} - \frac{1}{12 x^2} + \cdots
$$

Thanks to the following people for picking up some of the above errors: Russell Millar, Cajo ter Braak.