

Correspondence Analysis in Practice (second edition)

by Michael Greenacre

Apologies for the many small errors in Chapter 8, including one serious error on page 63. All changes are highlighted below. Many thanks to Marco Riani, Jordi Comas, Bill Miller and Tor Korneliussen for their feedback in this regard. Since I am only allowed a limited number of changes in the second printing, I have prioritized the corrections for the second printing: the ones marked in blue will be corrected.

- Page 7, line 2 from bottom: word “graphically” is repeated, this should read

is also a method for describing tabular data graphically, but which

- Page 58, line 11: this should read

with the average percentage of 65–74 years in the whole sample, given in the last col-

- Page 58, line 16: this should read

bad, while the percentage of *bad* responses in the sample is 6.5% (last row of

- Page 60, line 7 from bottom: this should read

Notice in Exhibits 6.5 and 8.3 that the profile points are more bunched up

- Page 60, last line: this should read

outer vertices (see Exhibit 4.2). The principal inertias (or their square roots

- Page 61, lines 7 & 8 from bottom: these should read

groups and health categories on the first CA principal axis, given in Exhibits 7.1 and 8.4 and displayed in Exhibits 6.3, 6.5, 8.2 and 8.3. We can use profile or

- Page 62, line:2 from bottom: this should read

Exhibit 8.4 contains the principal coordinates of the health categories (columns),

- Page 63, just after Equation (8.1), the following statement is incorrect:

Since $\text{cor}(X, X+Y) = \frac{1}{2} [1+\text{cor}(X, Y)]$ for any two variables X and Y , ...

as well as the Equation (8.2) following it.

It should read:

Since $\text{cor}(X, X+Y) = \sqrt{[1+\text{cor}(X, Y)]/2}$ for any two standardized variables X and Y , the average squared correlation in (8.1) is equal to:

$$\text{average squared correlation} = \frac{1 + \text{cor}(a, h)}{2} \quad (8.2)$$

- Page 72, line 10: this should read

Exhibit 9.3. A golden rule in interpreting maps of this type is that interpoint

- Page 74, small displayed table in the middle of page: this should read

<i>Dimension</i>	<i>Principal inertia</i>	<i>Percentage of inertia</i>
1	0.03912	47.2%
2	0.03038	36.7%
3	0.01087	13.1%
4	0.00251	3.0%

- Page 79, line 4 from bottom: this should read

Exhibit 10.7, showing the letters in their vertex positions and the 12 texts

- Page 82, line 4: this should read

(4.7), each row makes a positive contribution to the inertia in the form of

- Page 85, line 8 from bottom: this should read

From the average row profile c . Hence, using formula (4.7), the total inertia

- Page 86, line 7 from bottom: this should read

There is a further interpretation of the relative contributions: angle cosines between

- Page 87, line 6: this should read

11.8 gives the sum of the first two columns of Exhibit 11.6, and these are

- Page 101, middle of page, 3rd line after equation (13.5): this should read

ordinates f_{ik} and column standard coordinates γ_{jk} , is an approximate biplot

- Page 102, caption of Exhibit 13.3, line 5 from bottom: this should read

10.2 has been

- Page 103, lines 10 & 11 from bottom: these should read

namely as the success of recovering the profile values in the map. The row profiles of the original data in Exhibit 10.1 can be approximately recov-

- Page 115, lines 10–11, word “analyse” has been broken across the lines

- Page 126, caption of Exhibit 16.6, line 5: this should read

child still at
school, for 24

- Page 130, line 5: this should read

17.1. The top table is the one in Exhibit 16.4, with countries as rows, then

- Page 131, line 7: this should read

across all countries (we saw the specific differences in Exhibit 16.7).

- Page 132, middle of page, 2 lines before displayed table: this should read

This result is illustrated by calculating the inertias in each of the five cross-

- Page 136, line 2 from bottom: this should read

result is approximate and the total inertia of the table will be slightly

- Page 144, line 11: word “education” repeated, this should read

quency of non-response and the highest education groups tend to

- Page 150, last line of upper section: this should read

18.2 and 18.5 – just the scale is different, more like the scale of Exhibit 19.3.

- Page 162, line 2: word “moreover” misspelt, this should read

total number of consonants in the text, not the total letters. Moreover, the

- Page 166, line 10 from bottom: this should read

found by weighted least squares, as before (see Chapter 19, page 148), giving

- Page 167, first line after formula (21.1): this should read

where y_i is the i th profile value of Y . On the other hand, to project a new

- Page 171, first line after Exhibit: word “some” repeated, this should read

To back up this assertion with **some** figures, the 14 diagonal values

- Page 178, line 6 from bottom: this should read

first **five** rows of data and their doubled counterparts. For example, the first

- Page 189, line 8 from the bottom, remove word “respectively” and correct spelling of “dimensional”: this should read

32.1% (cf. Exhibit 10.5 where the two **dimensional** CA explained

- **Page 182, last three lines**: this should read

variable: first 1 is subtracted from the ranks to get the **positive** pole of the scale (the **high** value) and the **negative** pole is calculated as 11 minus the **positive** pole. The CA of the doubled matrix is shown in Exhibit 23.5.

- Page 195, line 7: remove apostrophe between c and s: this should read

3550 a s, 116 b s, 147 **cs**, ... etc. Then we take a random sample of 7144 letters

- **Page 198, line 17**: this should read

cal Appendix, page **211**, where the critical point (at a 5% level) is shown as

- **Page 200, line 9**: this should read

is **only one** assignment of the labels that gives a sum-of-distances smaller than

- Page 207, 2 lines before formulas: remove parenthesis at end of line.

- **Page 208, last line (before formula (A.35))**: this should read

ments are made as follows (see Chapter 19, pages 149–149, for an illustration):

- Page 210, line 19: this should read

is the unconstrained matrix, whose columns are not linearly related to \mathbf{X} .

- Page 210, last line of paragraph before formula (A.40): this should read

standardized in the same way as the columns of \mathbf{X} .

- Page 210, formula (A.41), missing matrix \mathbf{X}^T : this should read

$$\mathbf{Q} = \mathbf{D}_r^{-1/2} \mathbf{X} (\mathbf{X}^T \mathbf{D}_r \mathbf{X})^{-1} \mathbf{X}^T \mathbf{D}_r^{-1/2} \quad (\text{A.41})$$

- Page 211, marginal heading as well as 4th line of this paragraph, tables should be singular: these should read

(marginal heading) *Table for testing
for significant
clustering or
significant
dimensions*

(4th line of paragraph)

level for clustering, on the χ^2 scale, can be determined from the table in

- Page 213, 4th line from bottom: this is not a correction, just note that the last two numbers in

[1] 1.412505e+01 9.822577e+00 6.351831e-16 3.592426e-33

can be different in different versions of R (these are zeros with tiny computational errors)

- Page 215, line 6: this should read

consists of column labels and the subsequent lines have the row labels

- Page 218, heading in margin, second last from bottom should read

Transpose function

$t()$

- Page 232, middle of page, 3 lines 2 and 3 before *The ca package*: this should read

which agrees with the value for age in the table on page 135.

To build up the table in Exhibit 17.5, the four stacked tables (each with five

- Page 266, entry *stacked tables* should read *stacked table* (singular)

- Page 274, line 6: this should read:

example the adjusted inertia in (19.6)), it would be convenient if this provided