On one of the formulae proposed for interpreting transduction data

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The paper on the analysis of data from transduction experiments with Salmonella typhimurium, which was published in Genetical Research (Dawson, 1963), unfortunately contained an error on p. 419. In calculating the limiting values of X/Y, the formulae for d and d' are correctly stated, but their solutions are transposed. The last and third last lines on p. 419 should therefore be interchanged. In the arithmetic example on pp. 420 and 421, a similar interchange of the calculations of d and d' is necessary. The maximum value of a/b is then:

$$\frac{260 + 2 \times 9 \cdot 3}{145 - 2 \times 9 \cdot 3} = 2 \cdot 20$$

and the calculation of the minimum value should be:

$$\frac{X}{Y} = \frac{260 - 2 \times 9.9}{145 + 2 \times 9.9}$$

$$\frac{a}{b} = \frac{X+Y}{2Y} = 1.23$$

These values of $2 \cdot 20$ and $1 \cdot 23$ are to be compared with the values of $2 \cdot 23$ and $1 \cdot 24$ in the published paper.

The same error appears in my paper with Dr Smith-Keary on the analysis of leucine requiring mutants of Salmonella, in the same number of $Genetical\ Research$ (Smith-Keary & Dawson, 1963). On p. 434 the solutions for the values of d and d' are again the wrong way round, and there will be consequential slight arithmetic errors in Table 3 and Fig. 3. None of these, however, are large enough to affect any of the arguments or conclusions of the paper.

In the first of these papers (Dawson, 1963) there is an obvious typographical error in the fourth equation on p. 419, which should read:

$$\frac{a}{b} = \frac{1}{0.5 + 0.5(y/x)}$$

I am grateful to Mr L. G. Leslie of the Department of Bacteriology, North Carolina State College, U.S.A. for drawing my attention to these errors.

REFERENCES

Dawson, G. W. P. (1963). The interpretation of data from transduction experiments. *Genet. Res.* 4, 416-426.

SMITH-KEARY, P. F. & DAWSON, G. W. P. (1963). Transduction analysis using leucine requiring mutants of Salmonella typhimurium. Genet. Res. 4, 426-440.