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Author Correction: Corruption of the Pearson correlation coefficient by measurement error and its estimation, bias, and correction under different error models

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This Article contains errors in the Equations (39), (41), (48), and (78).

Equation 39:

$$A^m = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x0}^2}{\sigma_{x0}^2}\right) \left(\frac{\sigma_{m\mu x}^2}{\sigma_{x0}^2} + \frac{\sigma_{mc}^2}{\sigma_{x0}^2}\right)} \sqrt{1 + \left(1 + \frac{\mu_{y0}^2}{\sigma_{y0}^2}\right) \left(\frac{\sigma_{m\mu y}^2}{\sigma_{y0}^2} + \frac{\sigma_{mc}^2}{\sigma_{y0}^2}\right)}}. \quad (39)$$

should read:

$$A^m = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x0}^2}{\sigma_{x0}^2}\right) (\sigma_{m\mu x}^2 + \sigma_{mc}^2)} \times \sqrt{1 + \left(1 + \frac{\mu_{y0}^2}{\sigma_{y0}^2}\right) (\sigma_{m\mu y}^2 + \sigma_{mc}^2)}}. \quad (39)$$

Equation 41:

$$A^r = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x0}^2}{\sigma_{x0}^2}\right) \left(\frac{\sigma_{m\mu x}^2}{\sigma_{x0}^2} + \frac{\sigma_{mc}^2}{\sigma_{x0}^2}\right) + \frac{\sigma_{a\mu x}^2}{\sigma_{x0}^2} + \frac{\sigma_{ac}^2}{\sigma_{x0}^2}} \sqrt{1 + \left(1 + \frac{\mu_{y0}^2}{\sigma_{y0}^2}\right) \left(\frac{\sigma_{m\mu y}^2}{\sigma_{y0}^2} + \frac{\sigma_{mc}^2}{\sigma_{y0}^2}\right) + \frac{\sigma_{a\mu y}^2}{\sigma_{y0}^2} + \frac{\sigma_{ac}^2}{\sigma_{y0}^2}}}. \quad (41)$$

should read:

$$A^r = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x0}^2}{\sigma_{x0}^2}\right) (\sigma_{m\mu x}^2 + \sigma_{mc}^2) + \frac{\sigma_{a\mu x}^2}{\sigma_{x0}^2} + \frac{\sigma_{ac}^2}{\sigma_{x0}^2}} \times \sqrt{1 + \left(1 + \frac{\mu_{y0}^2}{\sigma_{y0}^2}\right) (\sigma_{m\mu y}^2 + \sigma_{mc}^2) + \frac{\sigma_{a\mu y}^2}{\sigma_{y0}^2} + \frac{\sigma_{ac}^2}{\sigma_{y0}^2}}}. \quad (41)$$

Equation 48:

$$A^r = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x_0}^2}{\sigma_{x_0}^2}\right) \left(\frac{\sigma_{mu_x}^2}{\sigma_{x_0}^2} + \frac{\sigma_{mc_x}^2}{\sigma_{x_0}^2}\right) + \frac{\sigma_{au_x}^2}{\sigma_{x_0}^2} + \frac{\sigma_{ac_x}^2}{\sigma_{x_0}^2}} \times \sqrt{1 + \left(1 + \frac{\mu_{y_0}^2}{\sigma_{y_0}^2}\right) \left(\frac{\sigma_{mu_y}^2}{\sigma_{y_0}^2} + \frac{\sigma_{mc_y}^2}{\sigma_{y_0}^2}\right) + \frac{\sigma_{au_y}^2}{\sigma_{y_0}^2} + \frac{\sigma_{ac_y}^2}{\sigma_{y_0}^2}}. \quad (48)$$

should read:

$$A^r = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x_0}^2}{\sigma_{x_0}^2}\right) (\sigma_{mu_x}^2 + \sigma_{mc_x}^2) + \frac{\sigma_{au_x}^2}{\sigma_{x_0}^2} + \frac{\sigma_{ac_x}^2}{\sigma_{x_0}^2}} \times \sqrt{1 + \left(1 + \frac{\mu_{y_0}^2}{\sigma_{y_0}^2}\right) (\sigma_{mu_y}^2 + \sigma_{mc_y}^2) + \frac{\sigma_{au_y}^2}{\sigma_{y_0}^2} + \frac{\sigma_{ac_y}^2}{\sigma_{y_0}^2}}. \quad (48)$$

Equation 78:

$$A^m = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x_0}^2}{\sigma_{x_0}^2}\right) \left(\frac{\sigma_{mu_x}^2}{\sigma_{x_0}^2} + \frac{\sigma_{mc_x}^2}{\sigma_{x_0}^2}\right)} \sqrt{1 + \left(1 + \frac{\mu_{y_0}^2}{\sigma_{y_0}^2}\right) \left(\frac{\sigma_{mu_y}^2}{\sigma_{y_0}^2} + \frac{\sigma_{mc_y}^2}{\sigma_{y_0}^2}\right)} \quad (78)$$

should read:

$$A^m = \frac{1}{\sqrt{1 + \left(1 + \frac{\mu_{x_0}^2}{\sigma_{x_0}^2}\right) (\sigma_{mu_x}^2 + \sigma_{mc_x}^2)} \times \sqrt{1 + \left(1 + \frac{\mu_{y_0}^2}{\sigma_{y_0}^2}\right) (\sigma_{mu_y}^2 + \sigma_{mc_y}^2)} \quad (78)$$

In addition, in the Material and Methods section, under the subheading ‘Software’, the link where the data are available has been changed, from ‘systemsbiology.nl under the SOFTWARE tab’ to: <https://github.com/esaccenti/CorrelationCorruption>.



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