

Errata:

P-hacking in academic research: a critical review of the job strain model and of the association between night work and breast cancer in women (2017) by Michael Ingre

Page 45, second paragraph, second sentence: “Let ϕ denote the probability density function, Φ the cumulative distribution function and Φ^{-1} the quantile function of the normal distribution with mean μ and variance σ^2 . The truncated distribution was used to calculate the expected mean of significant observations for X with mean μ and variance σ^2 , in the upper tail of the distribution given a nominal type-1 error rate (α) and assuming ϕ and Φ to be standardized, to model publication bias.”

Change to: “Let ϕ denote the probability density function, Φ the cumulative distribution function and Φ^{-1} the quantile function of the normal distribution with mean μ and variance σ^2 and index “s” to denote standardized functions. The truncated distribution was used to calculate the expected mean of significant observations for X with mean μ and variance σ^2 , in the upper tail of the distribution given a nominal type-1 error rate (α) and assuming ϕ and Φ to be standardized, to model publication bias (Foulley, 2000).”

Page 45, equation 5:

$$E(X|X > x) = \mu + \sigma \frac{\phi((x - \mu)/\sigma)}{1 - \Phi((x - \mu)/\sigma)}$$

where:

$$x = \Phi^{-1}\left(1 - \frac{\alpha}{2}\right) \quad \text{for the NULL distribution of } X \text{ with } \mu = 0 \text{ } \sigma = 0.$$

Change to:

$$E(X|X > x) = \mu + \sigma \frac{\phi_S((x - \mu)/\sigma)}{1 - \Phi_S((x - \mu)/\sigma)}$$

where:

$$x = \Phi^{-1}\left(1 - \frac{\alpha}{2}\right) \quad \text{for the NULL distribution of } X \text{ with } \mu = 0.$$

Page 60, second paragraph, second sentence:

“Since we have two variances, the between-study (sample) variance and the within-study (p-hacking) variance, this is a compound mixture distribution where the distribution from which the largest of k observations is drawn depends on the sample variance.”

Change to: “Since we have two distributions, the between-study (sample) distribution and the within-study (p-hacking) distribution, this is a (compound) mixture distribution (Lindsay, 1995) where the distribution from which the largest of k observations is drawn depends on the sample distribution.”

Add the following references:

- Foulley, J. L. (2000). A completion simulator for the two-sided truncated normal distribution. *Genetics, Selection, Evolution: GSE*, 32(6), 631–635.
- Lindsay, B. G. (1995). Mixture Models: Theory, Geometry and Applications. *NSF-CBMS Regional Conference Series in Probability and Statistics*, 5, i–163.