Corrections to *Unifying Political Methodology: The Likelihood Theory of Statistical Inference* (New York: Cambridge University Press) for Reprint Editions*

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On P.19, the equation on the bottom of the page: $f(\propto)$ should be $f(\alpha)$

p.20, 6 lines down in the text, the word "thus" at the start of the line should be capitalized, "Thus"

p.22, footnote 5, change $q(a) > q(b)$ to $q(a) \geq q(b)$.

p.32, second to last set equation, the second γ should have a subscript of 1, not zero; thus the entire equation should read:

$$\mu_i = \beta_0 + \gamma_0 P_i + \gamma_1 (P_i R_i)$$

p.51, change $v(\lambda) =$ to $V(\lambda) =$

P.57, 10 lines up, change f_2 to f_n

The first (unnumbered) set equation on Page 61 has two missing product signs ($\prod_{i=1}^{n}$) on the second and third lines, and a slash should be replaced by a vertical line. This equation should read as follows:

$$\begin{aligned} f(y|\mu) &= \prod_{i=1}^{n} f_{sn}(y_i|\mu_i) \\ &= \prod_{i=1}^{n} (2\pi)^{-1/2} \exp\left[\frac{-(y_i - \mu_i)^2}{2}\right] \\ &= \prod_{i=1}^{n} (2\pi)^{-1/2} \exp\left[\frac{-(y_i - \beta)^2}{2}\right] \end{aligned}$$

*All changes since the first printing are included here. An increasing subset of these have been incorporated in the various reprint editions.

p.65, 1st line of equation 4.8: All Greek Sigma's should have tilde's on them ($\tilde{\sigma}$), and one is missing. Please add it.

p.89, equation 4.20. Remove $\frac{1}{n}$ (but leave in the minus sign).

P.103, 2nd line: remove smudge mark from the word "unemployment"

p.110, the last set equation. Switch the inequality signs. It should read:

$$y_i = \begin{cases} 1 & \text{if } y_i^* \leq \tau \\ 0 & \text{if } y_i^* > \tau \end{cases}$$

p.111, 11 lines from the bottom: "3.14159..." should be "$3.14159\cdots$" since the dots refer to the continuation of the number.

p.118, 2nd set equation: the n in the start of this equation on the left side of the equals sign should be a captial N. also, the last $\tilde{\pi}$ should have a subscript i: $\tilde{\pi}_i$

p.118, last set equation: the n in the start of this equation before the equals sign should be a captial N

p.122, second line from the bottom. Change "so as" to "so is".

p.125, equation 5.19. N in the 2nd line of this equation should be N_i

p.125 first line after equation 5.19. Change to: where, in the last line, $ln(y_i!)$ and $y_i \ln N_i$ are dropped because they do not vary with $\tilde{\beta}$.

p.126 first line after equation 5.20. Change to: where, in the last line, $ln(y_i!)$ and $y_i \ln t_i$ are dropped because they do not vary with $\tilde{\beta}$.

p.128, most Greek letters should have tilde's in the set equation, the one line above, and the two lines below it; change to: on $\tilde{\beta}$ or $\tilde{\sigma}^2$, this may be written as follows:

$$\ln L(\tilde{\beta}, \tilde{\sigma}^2|y) = \sum_{i=1}^{n} \left\{ C_i - y_i \ln(\tilde{\sigma}^2) + \sum_{j=1}^{y_i} \ln \left[\exp(x_i \tilde{\beta}) + (\tilde{\sigma}^2 - 1)(j-1) \right] \right\}$$

where

$$C_i = \begin{cases} -\exp(x_i\tilde{\beta}) & \text{for } \tilde{\sigma}^2 = 1 \\ -\exp(x_i\tilde{\beta}) \ln(\tilde{\sigma}^2)(\tilde{\sigma}^2 - 1)^{-1} & \text{for } \tilde{\sigma}^2 > 1 \\ -\exp(x_i\tilde{\beta}) \ln(\tilde{\sigma}^2)(\tilde{\sigma}^2 - 1)^{-1} - \ln(D_i) & \text{for } 0 < \tilde{\sigma}^2 < 1 \end{cases}$$

With numerical methods, this equation may be maximized with respect to $\tilde{\beta}$ and $\tilde{\sigma}^2$ just like any other log-likelihood.

p.141, 3rd line in 2nd real paragraph: change "once for high social" to "once for lower social"

p.147, the second set equation on the page should read:

$$E(Y_{1i}) \equiv \pi_{1i} N_i = \exp(x_{1i}\beta + \ln N_i)$$

p.157, line 12: change "even" to "event"

p.166 insert a comma between g and α

On P.168, "Harvey, 1986b", should be "Harvey, 1981b"

p.176, first line after equation 7.15: add subscript 1 so the in- line equation reads as follows: $\phi_1 = -\phi_2$?

p.178, equation 7.17, change subscripts to read:

$$\begin{aligned}
\mu_i &= x_i\beta + y_{i-1}\phi \\
&= x_i\beta + (x_{i-1}\beta + y_{i-2}\phi + \xi_{i-1})\phi \\
&= x_i\beta + x_{i-1}\beta\phi + y_{i-2}\phi^2 + \xi_{i-1}\phi \\
&= x_i\beta + x_{i-1}\beta\phi + \xi_{i-1}\phi + (x_{i-2}\beta + y_{i-3}\phi + \xi_{i-2})\phi^2 \\
&= (\sum_{j=0}^{i-1} x_{i-j}\beta\phi^j) + \xi_{i-1}\phi + \xi_{i-2}\phi^2 + \xi_{i-3}\phi^3 + \cdots
\end{aligned}$$

p.192, change sign in 3rd set equation to read:

$$\begin{aligned}
\ln L(\tilde{\beta}|y) &= \sum_{i=1}^{n} \left\{ -(0\tilde{\beta} + 1) + y_i \ln(0\tilde{\beta} + 1) \right\} \\
&= \sum_{i=1}^{n} -1 \\
&= -n
\end{aligned}$$

P.193, 5 lines up: "some of the columns of X are perfectly correlated" to "there is a perfect linear relationship among some of the columns of X"

P.193, the footnote number "1" is missing from the footnote at the bottom of the page.

p.195, 1st 2 lines of first set equation. Change to:

$$\begin{aligned}
f(y, x|\mu, \sigma^2, \sigma_x^2) &= \prod_{i=1}^{n} f_N(y_i|\mu_i, \sigma^2) f_N(x_i|X_i^*, \sigma_x^2) \\
f(y, x|\tilde{X}_i^*\tilde{\beta}, \sigma^2, \sigma_x^2) &= \prod_{i=1}^{n} f_N(y_i|\tilde{X}_i^*\tilde{\beta}, \sigma^2) f_N(x_i|X_i^*, \sigma_x^2)
\end{aligned}$$

p.199, equation 8.4, 2nd line. Change the superscript $N/2$ to $-N/2$.

p.201, first line of the only set equation; change to:

$$(Y_{1i}, Y_{2i}) \sim f_{bn}(y_{1i}, y_{2i}|\mu_{1i}, \mu_{2i}, \sigma_1^2, \sigma_2^2, \sigma_{12})$$

Pp.201,266,274: change "Stimpson" to "Stimson"

P.205 add tildes to each and every β ($\tilde{\beta}$), γ ($\tilde{\gamma}$), and δ ($\tilde{\delta}$) in Equation 8.10

p.212, first set equation, change to:

$$L_{1i} = \int_{-\infty}^{y_i} f_{mn}(y_i, c_i|\mu_y, \mu_c, \sigma_y^2, \sigma_c^2, \sigma_{yc}) dc_i.$$

p.212, equation 9.2; change to:

$$\begin{aligned}
L_{1i} &= \int_{-\infty}^{y_i} f_n(y_i|\mu_{yi}, \sigma_y^2) f_n(c_i|\theta_i, \delta^2) dc_i \\
&= f_n(y_i|\mu_{yi}, \sigma_y^2) \int_{-\infty}^{y_i} f_n(c_i|\theta_i, \delta^2) dc_i \\
&= f_n(y_i|\mu_{yi}, \sigma_y^2) F_n(y_i|\theta_i, \delta^2),
\end{aligned}$$

p.212, last set equation, change δ to δ^2

p.213, 2nd set equation: change L_{1i} to L_{0i}

p.214, numerator of the second line of Equation (9.4): change $f_n($ to $f($

p.215, 2nd set equation: change θ_i to μ_{c_i}.

p.215, the two-line set equation after the short paragraph that starts with "Finally, I collect": change $\tilde{\theta}_i$ to $\tilde{\mu}_{c_i}$

p.215, 3rd set equation from the bottom. $\tilde{\phi}$ should be $\tilde{\phi}^2$

P.219, in the eqn between 9.7 and 9.8, change superscript from $-\lambda_i|\theta$ to $-\lambda_i/\theta$

p.211, change first sentence beginning in the third line from the bottom of the page to: Variables like x_{3i}, which appear in only one equation, are not technically necessary for identification, although they will help in almost any empirical application.

p.221, the set equation on the bottom of the page should read as follows (changes appear only in the second line):

$$\begin{aligned}\ln L(\tilde{\beta},\tilde{\gamma}|y) \quad = \quad & \sum_{i=1}^{n}\Big\{\ln\Gamma\left[\exp(x_i\tilde{\beta}-z_i\tilde{\gamma})+y_i\right]-\ln\Gamma\left[\exp(x_i\tilde{\beta}-z_i\tilde{\gamma})\right] \\ & +y_i(z_i\tilde{\gamma})-\left[\exp(x_i\tilde{\beta}-z_i\tilde{\gamma})+y_i\right]\ln[1+\exp(z_i\tilde{\gamma})] \\ & -\ln\left[1-[1+\exp(z_i\tilde{\gamma})]^{-\exp(x_i\tilde{\beta}-z_i\tilde{\gamma})}\right]\Big\}\end{aligned}$$

Remove little hairline marks: P.226 3 times on eqn 9.11 and above; P.253, near the word 'needs':

P.250: the footnote number "1" is missing from the footnote at the bottom of the page.

P.259: in the Goldstein reference, "relation" should be "relations"

P.273 symbol after "sample space" should be a script S like the ones on p.38–9.