## Typos from the 'Og

May 5, 2021

## The Bayesian Choice

- 1. (Thanks to Bastien Boussau, Berkeley) In Example 1.1.3 (or Example 1.3), on page 3, I consider an hypergeometric  $\mathcal{H}(30, N, 20/N)$  distribution, while in Appendix A, I denote hypergeometric distributions as  $\mathcal{H}(N; n; p)$ , inverting the role of the population size and of the sample size.
- 2. (Thanks to Thong Pham, Ritsumeikan University, Japan) In Example 1.3.2 (or Example 1.11), the term  $\sigma^n$  in the expression at the top of page 15 should be  $\sigma^{n-1}$ .
- 3. (Thanks to Cristiano Passerini, Pontecchio Marconi, Italy). In Example 4.3.3 (or Example 4.19), page 184, further involves a typo related with the hypergeometric distribution  $\mathcal{H}(N;n;p)$ . The ratio should be

$$\frac{\binom{n_1}{n_{11}}\binom{n-n_1}{n_2-n_{11}}}{\sum_{k=36}^{50}\binom{n_1}{n_{11}}\binom{k-n_1}{n_2-n_{11}}}/\binom{k}{n_2}\pi(N=k)}.$$

4. (*Thanks to Stack Exchange*) In Definition 5.5 (p.231) of the Bayes factor, the final formula

$$B_{01}^{\pi}(x) = \frac{\int_{\Theta_0} f(x|\theta_0) \pi_0(\theta) \, \mathrm{d}\theta}{\int_{\Theta_1} f(x|\theta_1) \pi_1(\theta) \, \mathrm{d}\theta} = \frac{m_0(x)}{m_1(x)}$$

should be

$$B_{01}^{\pi}(x) = \frac{\int_{\Theta_0} f(x|\theta_0) \pi_0(\theta_0) \,\mathrm{d}\theta_0}{\int_{\Theta_1} f(x|\theta_1) \pi_1(\theta_1) \,\mathrm{d}\theta_1} = \frac{m_0(x)}{m_1(x)}$$

5. (Thanks to Luiz Max Fagundes de Carvalho, Getúlio Vargas Foundation (FGV), Brazil) In Exmple 5.2.7, the numerical illustration should be

$$\left(1+\frac{2}{120}2^5\right)^{-1} = \frac{15}{23}$$

(This typo was created in later revisions as it does not appear in the 2001 printing.)

- 6. (Thanks to John Haman) On page 280, at the end of Section 5.7.1,  $\gamma^{\pi}(x)$  is equal to one when the probability is larger than  $a_1/(a_0 + a_1)$ .
- 7. (*Thanks to Peng Yu*) On pages 344-345, (7.1.1) should designate the general setting of a collection of models, i.e. the last formula of page 344, rather than the mixture example.

- 8. (Thanks to Benjamin Remy Holcblat) In formula (10.4.3), on page 480, (formula (10.15), page 493 in the paperback), the denominator should be  $p_{x_{n+1}}(x_1,\ldots,x_n)$  instead of  $p_{x_{n+1}}(x_1,\ldots,x_n) + 1$ .
- 9. (Thanks to Anthony Lee) In Definition 10.2.1, formula (10.2.1), the last integrand should be  $\theta_n$ , not  $\theta_{n+1}$ . (I somehow thought this had been corrected already!)
- 10. (Thanks to Stefan Webb) The density

$$f(x|p) = \frac{\binom{pn}{x}\binom{(1-p)N}{n-x}}{\binom{N}{n}} \mathbb{I}_{\{n-(1-p)N,\dots,pN\}}(x)\mathbb{I}_{\{0,1,\dots,n\}}(x).$$

should be

$$f(x|p) = \frac{\binom{pN}{x}\binom{(1-p)N}{n-x}}{\binom{N}{n}} \mathbb{I}_{\{n-(1-p)N,\dots,pN\}}(x)\mathbb{I}_{\{0,1,\dots,n\}}(x).$$

11. (Thanks to Peng Yu) On page 578, the reference West (1992) is a phantom reference in that it is not quoted in the book.