Errata for

George W. Evans and Seppo Honkapohja

"Learning and Expectations in Macroeconomics"

(Princeton University Press 2001).

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p. 36, last line: "postive" should be "positive".

p. 56, line 6. On the right-hand-side of the differential equation for $\frac{d\phi}{d\tau}$ the vector $\begin{pmatrix} \mu \\ \delta \end{pmatrix}$ should be premultiplied by the matrix M.

p. 57. Footnote 13 is misleading since the term "self-confirming equilibrium" is used for a related but distinct concept. In a restricted perceptions equilibrium agents can in principle detect the deviation from fully rational expectations using actually realized data generated from within the equilibrium. In a self-confirming equilibrium the deviation from rational expectations is detectable only along off the equilibrium paths.

p. 65, line -7 has a typo: the beginning of the line should read "where $T(a) = \alpha + (\beta_0 + \beta_1)a$. It follows ..."

p. 65. In the last line of this page the parameters have incorrect subscripts and one of the numerical values is wrong. The sentence should read: "We set $a_p = 1$, $b_r = -0.2$, $c_q = 1$ and $c_r = -0.5$."

p. 72, lines 12-14: The result that K_L^* and K_H^* are both stable under learning does not necessarily hold. A sufficient condition for stability under learning of a steady state $\bar{K}$ having the property $0 < \frac{dK_{t+1}}{dK_t}(\bar{K}) < 1$ is that, at the steady state, saving depends negatively on the interest rate, i.e. $s' < 0$.

p. 73. The first sentence of the third paragraph of Section 4.6.1 should read: "Suppose that agents have a unit endowment of time available to scan and absorb ideas, that the number of suitable ideas generated is λN_t, so that $(\lambda N_t)^{-1}$ is the amount of time that elapses before a suitable idea arrives, and that it takes a units of time to absorb a suitable idea."

p. 79. The equation in the middle of the page should read have $G(n_j)$ instead of $G(n_j^*)$, i.e. it should read

$$\phi_{i,t} = (\#N_i(t-1))^{-1} \sum_{j \in N_i(t-1)} G(n_j).$$

p. 83, line -5: the following should be added to the sentence in brackets: ...under consideration, and where the unchanged notation for K_t and r_t refers to deviations from the steady state K, r.)

p. 84, lines 13-14: Stability under learning implies that $0 < \frac{dK_{t+1}}{dK_t}(\bar{K}) < 1$, but the converse does not necessarily hold. A sufficient condition for the converse is $a_r < 0$.

p. 84, last paragraph, line 2: "Figure 4.3" should read "Figure 4.4".

p. 116, line -5: "the mn eigenvalues" should read "the mp eigenvalues".

p. 117. In the displayed equation for vec(A), the last element should be a_n.

pp. 142-3: There is a notational inconsistency in the last matrices on p.143 as the $(2,2)$ element of matrix A is not the B matrix next to it. The $(2,2)$ element of matrix A is the coefficient matrix of the process for exogenous variables in equation (6.7) on p. 141. A consistent notation would be to write the 2nd line of (6.7) as $w_t = Fw_{t-1} + v_t$. This changes the 3rd, 4th and 5th equations on p. 142 to

$$y_t = (\mu + Aa) + (Ab + CF)w_{t-1} + \eta_t$$

$$T(a,b) = (\mu + Aa, Ab + CF)$$

and

$$\begin{aligned} \frac{da}{d\tau} &= \mu + (A - I)a, \\ \frac{db}{d\tau} &= CF + (A - I)b. \end{aligned}$$

On p. 142 on lines 3 and 4 one must also replace matrix B by F. Matrix A on p.143, which corresponds to $A(\theta_{t-1})$ of equation (6.4), is changed to

$$A = \begin{pmatrix} 0 & 0 & 0 \\ 0 & F & 0 \\ 0 & I & 0 \end{pmatrix}$$

while B remains unchanged.
p. 156: Assumption (M.3) (i) is missing a $[g]_p$ factor. It should read

$$\text{(i)} \ \ |\Pi_\theta^n g(x_1) - \Pi_\theta^n g(x_2)| \leq K_1 \rho_1^n [g]_p \, |x_1 - x_2| \, (1 + |x_1|^p + |x_2|^p).$$

p. 180: In the displayed equation three lines after (8.10) the expression should read

$$a_t = t^{-1} \sum_{i=0}^{t-1} y_{t-i}.$$

p. 184: On line 14, the expression for $E_{t-1}^* y_t$ should read $E_{t-1}^* y_t = a + b y_{t-1}$.
p. 194: In example 3, it would be better to say "u_t is an iid supply or cost shock and v_t is an iid demand or velocity shock."
p. 196: In line -4 has a typo: the line should read "time $t-1$, the PLM is assumed to ..."
p. 202: In line 4, in the expression for δ, lower case c is defined as $c = \Omega^{-1}$.
p. 202: In the third line after equation (8.39), the expression for $\bar{a}$ should read $\bar{a} = (\alpha + \beta\mu\bar{c})/(1 - \beta - \beta\bar{b})$. Five lines later, in the displayed equation for $T(a,b,c)$, the first component should read $(\alpha + \beta(a + \mu c))/(1 - \beta b)$. The statement of E-stability conditions in Proposition 8.3 remains correct.
p. 207: The line after the 2nd equation should read "... $E_{t-1}\varepsilon_t = 0$."

p. 215, line -2: the differential equation should read $db_1/d\tau = T_{b_1}(b_1) - b_1$.
p. 231: Four lines after (10.9) db/dt should be $db/d\tau$.
p. 231, line -3 and p. 232, line 4: "Jacobian" should read "Jacobian matrix".
p. 238, line -10: $z_t' = (1, y_{t-1}', w_t)$ should read $z_t' = (1, y_{t-1}', w_t')$.
p. 260, line 2: the equation should read

$$x_t^1 = (I - \beta^{12}\delta^{21})^{-1}[\beta^{11}E_t x_{t+1}^1 + (\beta^{12}\delta^{22}, \delta^{11}, \delta^{12}, \tilde{\kappa} + \beta^{12}\hat{\kappa}\varphi)x_t^2].$$

p. 305: Line 4 after equations (12.15) should read "... as follows. $tq_{j,t}$ is the number ...".
p. 342: In the displayed production function, line 5, the α inside the max operator should be a. Thus it should read

$$f(n, N) = An^{\alpha}\{\max(I^*, \lambda N(1 + a\lambda N)^{-1})\}^{\beta}.$$

In the following line the settings of parameters should be $\alpha = 0.9$ and $a = 0.025$.
p. 394: The correct date of publication and volume for Evans and Honkapohja, "Least Squares Learning with Heterogeneous Expectations" is 1996, vol. 53.
p. 395: The correct title for Evans, G. W. and G. Ramey (1992) is "Expectation Calculation and Macroeconomic Dynamics," *American Economic Review*, 82, 207-224.
p. 401: The correct publication year for Marimon, R., E. McGrattan and T. Sargent is 1990.
p. 401: The correct pages numbers for McCallum, B. T. (1983) on line -5 are pp. 139-168.