Corrigendum

Lagziel, D., Lehrer, E. "Performance cycles" (2023) published in *Economic Theory*.[1]

The derivative $\hat{\pi}'(Q_0)$, given in part IV in the proof of Theorem 4, is missing the term $(1-\lambda)\beta\hat{\pi}'((1-\lambda)Q_0 + \lambda\sigma(Q_0))$. This affects the last part of the theorem. The final bullet point is not accurate in light of the correct formulation. The updated theorem differs from the published version only in the last bullet point; the modified statement is as follows:

Theorem 4. *Given the interior-solution property, the steady output level Q^*_λ strictly increases as a function of λ. Moreover, for every $\lambda_1 \neq \lambda_2$, and given an initial position of $Q^*_{\lambda_1}$, the* DM*'s payoff is higher under the λ_2-evaluation rather than under the λ_1-evaluation, i.e., $\hat{\pi}_{\lambda_2}\left(Q^*_{\lambda_1}\right) > \hat{\pi}_{\lambda_1}\left(Q^*_{\lambda_1}\right)$. In addition, If $\lambda_1 > \lambda_2$, then*

- $\hat{\pi}_{\lambda_2}(Q) > \hat{\pi}_{\lambda_1}(Q)$*, for every* $Q \geqslant Q^*_{\lambda_1}$*;*
- $\hat{\pi}_{\lambda_2}(Q) < \hat{\pi}_{\lambda_1}(Q)$*, for every* $Q \leqslant Q^*_{\lambda_2}$*.*

The second paragraph in part IV should rightfully read as follows.

Now assume that $Q^*_{\lambda_1} = Q^*_{\lambda_2}$ for $\lambda_2 < \lambda_1$. We can take the FOC of the RHS of the stated Bellman equation (similarly to Theorem 3), along with the derivative of $\hat{\pi}_{\lambda_1}(Q_0)$, to get the two equations,

$$\lambda\left[R'((1-\lambda)Q_0 + \lambda\sigma(Q_0)) + \beta\hat{\pi}'((1-\lambda)Q_0 + \lambda\sigma(Q_0))\right] = \left(Q^{-1}\right)'(\sigma(Q_0))$$

and

$$\hat{\pi}'(Q_0) = (1-\lambda)R'((1-\lambda)Q_0 + \lambda\sigma(Q_0)) + (1-\lambda)\beta\hat{\pi}'((1-\lambda)Q_0 + \lambda\sigma(Q_0)),$$

where the second equality follows from the envelope theorem. Taking $\lambda = \lambda_1$, $Q_0 = Q^*_{\lambda_1}$, and plugging the second equation into the first, yields

$$\frac{\lambda_1}{1-\beta(1-\lambda_1)} = \frac{\left(Q^{-1}\right)'\left(Q^*_{\lambda_1}\right)}{R'\left(Q^*_{\lambda_1}\right)}.$$

Since $\beta \in (0,1)$, the LHS is an increasing function of λ_1, subject to $0 \leqslant \lambda_1 \leqslant 1$. Thus, $Q^*_{\lambda_1} = Q^*_{\lambda_2}$ contradicts the last equality, implying $Q^*_{\lambda_1} > Q^*_{\lambda_2}$, as needed.

[1]We are grateful to Leslie Reinhorn for pointing out the mistakes in the paper.