CORRECTION

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Correction: Interfacial effects on droplet dynamics in Poiseuille flow

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Correction for 'Interfacial effects on droplet dynamics in Poiseuille flow' by Jonathan T. Schwalbe *et al.*, *Soft Matter*, 2011, **7**, 7797–7804.

The authors regret the following errors:

- Eqn (33) and (34) should be replaced by

$$U_{\text{mig}}^{(1)} = y_0 \frac{(17 + 3\lambda + 12\text{Bo}^{\text{S}})}{9(4 + \lambda + 4\text{Bo}^{\text{S}})} \hat{y} \tag{1}$$

In the absence of interfacial viscosity $\text{Bo}^{\text{S}} = 0$, this result reduces to the one reported by Hanna and Vlahovska.[1]

- The source of the error is eqn (54). When solving for the surfactant contribution to the velocity field one should keep the surface viscous stresses (eqn (10)). Eqn (54) should read

$$c_{jm0}^{\text{S}} = -\delta_{j1} \frac{\sqrt{2}}{3(3\lambda + 2\text{Bo}^{\text{d}} + 2)} \text{Mag}_{jm} - (1 - \delta_{j1}) \frac{\sqrt{j(j+1)}}{(1+2j)(1+\lambda) + (j+j^2)\text{Bo}^{\text{d}} + (-2+j+j^2)\text{Bo}^{\text{S}}} \text{Mag}_{jm} \tag{2}$$

$$c_{jm1}^{\text{S}} = 0$$

$$c_{jm2}^{\text{S}} = \delta_{j1} \frac{2}{3(3\lambda + 2\text{Bo}^{\text{d}} + 2)} \text{Mag}_{jm}$$

In the absence of interfacial viscosity $\text{Bo}^{\text{S}} = 0$, $\text{Bo}^{\text{d}} = 0$, these equations reduce to the ones reported in Hanna and Vlahovska.[1]

- In eqn (55) there is a typographical error in the expression for C_{jm}, c_{jm2}^{S} should be c_{jm2}^{0}.
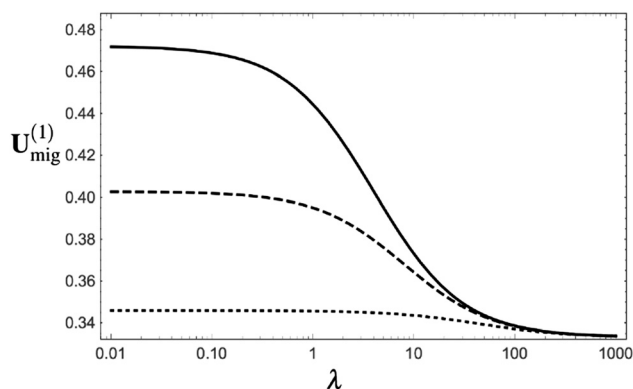

Fig. 1 Corrected Fig. 3b. $y_0 = 1$.

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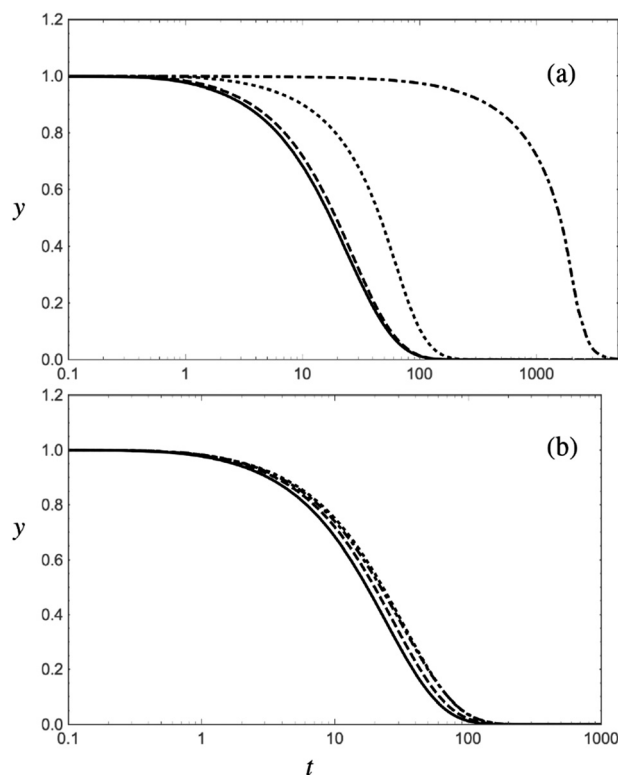
Fig. 2 Corrected Fig. 4a and b.

Sections 1–3 and 4.1 are not affected at all. Fig. 3a in the original paper should be disregarded since the corrected migration velocity is independent of the dilational viscosity. Corrections to Fig. 3b, 4a and b are minimal as shown below. The changes to the results do not impact on the conclusions of the article.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

References

1 J. Hanna and P. M. Vlahovska, *Phys. Fluids*, 2010, **22**, 013102.