

Erratum to “Sandström, Ulf, and Martin Hällsten. 2008. "Persistent nepotism in peer-review." *Scientometrics* 74:175-189.”

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In our 2008 article, we have misinterpreted the interaction effects. As a result, we overestimate gender inequality.

On p. 186, we discuss gender differences in grades, and say that it is 9 percentage points higher for females, referring to model 9 of Table 2. Here, the female dummy is interacted with three productivity measures. The coefficient of .096 refers to the case where all productivity measures are zero, which is outside the observed data range (compare Table 3). We erroneously ignore this when we interpret the gender coefficient and erroneously treat this coefficient as referring to average gender differences between males and females. A better estimate is model 8, which has no gender interactions (NB that these interactions are non-significant in model 9 and thus do not impact the model directly). Here, the estimate is instead .033, suggesting a weak average bonus for women.

This error also applies to model 10 and Table 1, and our main conclusions of the paper as discussed on p. 186 and also in the abstract. The interactions displayed in Table 1 ignore that gender and conflict of interest are interacted with the productivity measures, and thus refers to the situation where these are zero.

Using partial derivatives for gender:

$$\begin{aligned} \partial \text{score} / \partial \text{female} = & \beta_{\text{female}} + \beta_{\text{quality (cpp/fcs)}} * \text{principal investigator is female} * \text{quality (cpp/fcs)} + \\ & \beta_{\text{number of publications}} * \text{principal investigator is female} * \text{number of publications} + \\ & \beta_{\text{expected impact (jcs/fcs)}} * \text{principal investigator is female} * \text{expected impact (jcs/fcs)} \\ & \beta_{\text{conflict of interest}} * \text{principal investigator is female} * \text{conflict of interest} \end{aligned}$$

we can re-center the estimates to reflect sample means. We collect the relevant coefficients from Table 2, model 10, and set the productivity measures to their sample means found Table 3. We then compute different margins for cases with and without conflict of interest.

$$\begin{aligned} \text{Conflict of interest: } & 0.097 + -0.011 * 1.203 + 0.001 * 16.686 + -0.041 * 1.128 + -0.082 * 1 \\ & = -.027795 \end{aligned}$$

$$\begin{aligned} \text{No association: } & 0.097 + -0.011 * 1.203 + 0.001 * 16.686 + -0.041 * 1.128 + -0.082 * 0 \\ & = .054205 \end{aligned}$$

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These show that females have slight disadvantage when there is conflict of interest, but have an advantage when there is no conflict of interest. This in line with our conclusions, but the inequality is weaker.

Reanalyzing our data, we can also predict average marginal effects and predictions (using the margins command in stata) so we get inferential statistics. This is marginal effects and predicted values calculated for each observation in our data and then averaged, which also projects estimates back to our observed mean productivity and is representative of our data.

Figure E1 and Table E1 shows predicted values for each of the cells of our original Table 1. The pattern is the same as in our original article, but the differences by conflict of interest and gender are smaller. We find that men without contacts receive the lowest grading, and that there are no differences among the other categories as judged by the overlapping confidence intervals.

Table E2 displays the average marginal effect for gender for cases with and without reviewer affiliation. Precisely as with our calculations using partial derivatives above, we find the gender coefficient to be 0.05 when there is no reviewer affiliation, suggesting a disadvantage of 5 percentage points for men without contacts compared to women. This is half the size of the original effect we report. The difference is still highly significant. For males and females with reviewer affiliation, we find no significant difference (and the point estimate is close to the partial derivative above). If we change perspective to the marginal effect of conflict of interest, we find a reviewer bonus of almost ten percentage points for males, but no differences for females.

In sum, with correct interpretation, we now find weaker differences by conflict of interest and gender. The pattern we reported in the original article, namely that men without contacts receive the lowest grade scores, however still apply. We apologize to readers of our article for this error.

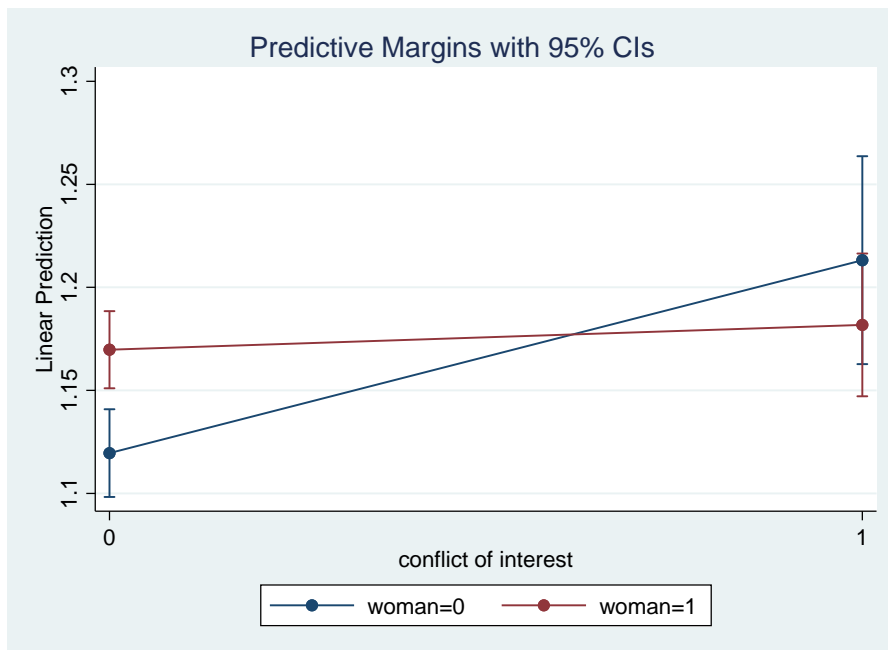


Figure E1. Predicted grade scores by gender and conflict of interest, averaged over all cases.

Table E1. Predicted grade scores by gender and conflict of interest, averaged over all cases.

	Predicted grades		Normalized to male, no CoI	
	Male PI	Female PI	Male PI	Female PI
No association	1.12 (1.098, 1.141)	1.17 (1.151, 1.188)	ref	0.05
Conflict of interest	1.213 (1.163, 1.264)	1.182 (1.147, 1.216)	0.093	0.062

Note: 95 % CI in parenthesis. The normalization is scaled to be comparable to Table 1 in the original article.

Table E2. Marginal effects of gender and conflict of interest, averaged over all cases.

		Marginal effect of ...	
		Female PI	Conflict of interest
By factor ...			
COI	No association	0.050*** (0.021, 0.079)	
	Conflict of interest	-0.031 (-0.096, 0.033)	
Gender	Male PI		0.094** (0.037, 0.150)
	Female PI		0.012 (-0.027, 0.050)

Note: 95 % CI in parenthesis. * p<0.05, ** p<0.01, *** p<0.001