

Table 1: Possible Rankings of A , B , and C and Corresponding Posterior Probabilities. Because of rounding, not all columns sum to one.

(R_A, R_B, R_C)	Errors $g(\mathbf{R})$	Posterior probability as a function of β	Posterior probability for specified β			
			$\beta = .5$	$\beta = .3$	$\beta = .1$	$\beta = .01$
(1, 2, 3)	0	$1/(1 + 2\beta + 2\beta^2 + \beta^3)$	.381	.553	.819	.980
(1, 3, 2)	1	$\beta/(1 + 2\beta + 2\beta^2 + \beta^3)$	.190	.166	.082	.010
(2, 1, 3)	1	$\beta/(1 + 2\beta + 2\beta^2 + \beta^3)$	.190	.166	.082	.010
(2, 3, 1)	2	$\beta^2/(1 + 2\beta + 2\beta^2 + \beta^3)$.095	.050	.008	.000
(3, 1, 2)	2	$\beta^2/(1 + 2\beta + 2\beta^2 + \beta^3)$.095	.050	.008	.000
(3, 2, 1)	3	$\beta^3/(1 + 2\beta + 2\beta^2 + \beta^3)$.048	.015	.001	.000

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$$\hat{\rho} \equiv \frac{\sum_{j=1}^J \sum_{i=1}^n (x_{ij} - \bar{x}_{..})(y_{ij} - \bar{y}_{.j})}{\sqrt{\sum_{j=1}^J \sum_{i=1}^n (x_{ij} - \bar{x}_{..})^2 \sum_{j=1}^J \sum_{i=1}^n (y_{ij} - \bar{y}_{.j})^2}}$$

Version 2 uses the maximum likelihood estimate of ρ .

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However, for large J and small n , the version 1 approach does not perform as well.

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Figure 1: Actual confidence interval coverages, $J = 4$, $\rho = .85$, nominal confidence level = .75, quantile = .01

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Table 2: Possible Rankings of A , B , and C and Corresponding Posterior Probabilities. Because of rounding, not all columns sum to one.

$\beta = .5$	$\beta = .3$	$\beta = .1$	$\beta = .01$
.381	.553	.819	.980
.190	.166	.082	.010
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