


The authors have responded adequately to most of my comments, but I think a little additional revision may be in order.

 *Section 4.  $\eta$  or  $\kappa$ .* Predictor collinearity is describe from (3) in terms of the exponential parameter  $\gamma$ , but response collinearity is described in terms of  $\eta$ , which is notation for eigenvalues from (4). It seems to me that  $\eta$  and  $\kappa$  have been confused throughout the paper. Here are some instances,

The first sentence following (4) refers to four levels of **eta**. Then the following sentence gives further discussion in terms of  $\kappa$ .

Figures 2, 4 & 5 have **eta** as a label, which makes no sense in terms of (4). I think these labels should be **kappa**.

In the two sentences following (5), shouldn't the  $\eta$ 's be  $\kappa$ ?


*Section 4. Construction of the  $\Sigma$ 's following (5).* In the fourth line following (5), shouldn't  $p \times m$  be  $m \times p$ . Assuming that is so, here is how I understand the constructions from the description. Let  $\sigma = (\sigma_{11}, \sigma_{12}, \sigma_{13}, \sigma_{14})^T$ , let  $1_4$  denote a  $4 \times 1$  vector of ones, and partition the  $p \times p$  orthogonal matrix  $Q = (Q_1, Q_2)$ , where  $Q_1$  is  $p \times 4$ . Then

$$\begin{aligned}\Sigma_{xx} &= Q\Sigma_{zz}Q^T \\ \Sigma_{yy} &= R\Sigma_{ww}R^T \\ \Sigma_{x,y} &= Q \begin{pmatrix} \sigma \\ 0 \end{pmatrix}_{p \times 1} 1_4^T R^T \\ &= Q_1 \sigma 1_4^T R^T \\ \text{rank}(\Sigma_{x,y}) &= 1.\end{aligned}$$

If my interpretation is correct then there are 4 true predictor components provided  $\gamma \neq 0$ , and 4 true response components provided  $\kappa \neq 0$ . The simulations never used  $\gamma = 0$  so there are always 4 predictor components. However,  $\kappa = 0$  was used (assuming that's what  $\eta = 0$  means) and then there is only one response component. If all of this is correct is should be stated for clarity in the paper.

*Response components.* In the middle of page 8 it is stated that “Here we have assumed that there is only one response component.” Does this mean that in all estimation methods where relevant a single response component was used? If so, then in all settings where  $\kappa \neq 0$  the estimators were based on the wrong scenario since there are really 4 true response components. Importantly, no estimator had the ability to adapt to the number of response components. Additionally, all subsequent mentions of the “number of components”, like around (8), must be references to the number of *predictor* components. I think this need to be made clearer,

if my guesses are correct. And I would like to see some discussion of the possible effects of forcing the wrong number of response components.

Additionally, designs 9 and 29, which are contrasted in Table 1, differ on the number of true response components, design 9 having 1 component and design 29 having 4, although data from both designs were evidently fitted with one response component. Does this matter for interpretation? 

Section 5. Basis of Comparison: I'm still unconvinced by the choice of the inner product matrix in (6). If the variances of the elements of  $\hat{\beta}$  differ greatly, then the metric (6) will emphasize the most variable element rather than the whole of  $\hat{\beta}$ . 