REMARKS ON BAHADUR EFFICIENCY OF CONDITIONAL TESTS

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In Examples 2 and 3 on page 1386 of the paper a zero exact slope is obtained for the optimal tests $U_n \mid V_n$ and $U(t) \mid V(t)$ respectively for a choice of certain normalising sequences $a_n(k)$ and $a_t(k)$. This implies that for these examples there does not exist any tests with positive exact slope, rendering the "optimality" of the above mentioned tests trivial or tautological. This however can easily be corrected by requiring in Theorems 2.2 and 2.3 the existence of a normalising sequence $a_n(k)$ such that $K(k, h)$ of Equation (2.3) is positive.

In Example 2, choosing $a_n(k) = \xi_{n1}$ instead of $n\xi_{n1}$, we find that the non-zero exact slope is given by

$$2[(\theta_0 - \theta_1)(e^{\theta_1} - 1)^{-1} + \ln\{(1 - e^{-\theta_1})(1 - e^{-\theta_0})^{-1}\}].$$

Also, for Example 3 choose $a_t(k) = \xi_{t1}$ instead of $t\xi_{t1}$ to obtain the following non-zero exact slope:

$$2[(\lambda_0 - \lambda_1)\lambda_1^{-1} + \ln(\lambda_1/\lambda_0)].$$

It is clear that in all four examples discussed in the paper, the choice $a_n(k) \propto E_k(V_n)$, or $a_t(k) \propto E_k\{V(t)\}$, gives a non-zero $K(k, h)$, thus removing the ambiguity.

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