

NOTES

CORRECTION TO

“ON ESTIMATING THE COMMON MEAN OF TWO NORMAL DISTRIBUTIONS”

BY ARTHUR COHEN AND HAROLD B. SACKROWITZ

Professor R. A. Wijsman has kindly pointed out an error in Section 2 (*Ann. Statist.* 2 1274-1282). The quantities V_i and W_i of that section are not independent as asserted. However, all the ideas and methods of the section still work by defining $S^2 = \sum_{i=n-r}^{n-1} V_i^2$, so that $S^2/(\sigma_x^2 + \sigma_y^2)$ is distributed as $\chi^2(r)$ instead of $\chi^2(2r)$. Subsequent revision of the constants is required throughout the section. The most important changes are on page 1275, line 4, where $n \geq 5$ should be replaced by $n \geq 6$. The constant $C_r = (r-4)/(n-r+1)$ and $C_n^* = [(n-5)/(n-1)]^2$ for n odd and $[(n-4)(n-6)/n(n-2)]$ for n even.

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CORRECTION TO

“BLOCK DESIGNS FOR MIXTURE EXPERIMENTS”

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In the above paper published in *Ann. Math. Statist.*, 1970, two blocking conditions were imposed on proportions x_{iu} 's of any mixture. These conditions are

$$(1) \quad \sum_{u=1}^{m_w} x_{iu} = \text{constant} = k_1$$

and

$$\sum_{u=1}^{m_w} x_{iu} x_{ju} = \text{constant} = k_2$$

for all $w = 1, 2, \dots, t$ and $i \neq j$; $i, j = 1, 2, \dots, n$, where m_w is the number of mixtures in w th block. It can be easily shown that the imposition of conditions (1) makes the design matrix singular. Hence the estimates of regression parameters cannot be obtained. Block designs obtained in the above paper are all singular. It can be seen that nonsingularity can be achieved if the following conditions are imposed in place (1).

$$(2) \quad \sum_{u=1}^{m_w} x_{iu} = \text{constant} = k_{1w}$$

and

$$\sum_{u=1}^{m_w} x_{iu} x_{ju} = \text{constant} = k_{2w}$$

where k_{1w} and k_{2w} are such that

(3) $k_{1w} \neq k_{1w'}$
 and/or $k_{2w} \neq k_{2w'}$
 for some $w \neq w'$.

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