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CORRECTION NOTES

CORRECTION TO "A REMARK ON NONATOMIC MEASURES"

BY K. P. S. BHASKARA RAO AND M. BHASKARA RAO
Indian Statistical Institute, Calcutta

The "only if" part of the theorem proved in this note (*Ann. Math. Statist.* **43** (369–370) is not correct. Here is an example.

Let I^2 be the unit square equipped with the usual Borel σ-algebra. Let μ and λ be two continuous measures on I^2 with total mass $\frac{1}{2}$ each concentrated on the lines $x = \frac{1}{2}$ and $y = \frac{1}{2}$ respectively. $\mu + \lambda$ is nonatomic on I^2 but none of the marginals is nonatomic. In fact, $\{\frac{1}{2}\}$ is a measure atom for both the marginals.

Remark (1) is also not true. The Cantor set $\{0, 1\}^{\aleph_0}$ with Haar measure is the counter example.

CORRECTION TO "THE WEIGHTED LIKELIHOOD RATIO, SHARP HYPOTHESES ABOUT CHANCES, THE ORDER OF A MARKOV CHAIN"

BY JAMES DICKEY AND B. P. LIENTZ
State University of New York at Buffalo and University of Southern California

The claim (Section 3.3) in our paper (*Ann. Math. Statist.* **41** 214–226) of the *invariance* of Savage's Density Principle,

$$g(\boldsymbol{\zeta}) = f(\boldsymbol{\eta}_0, \boldsymbol{\zeta}) / \int f(\boldsymbol{\eta}_0, \tilde{\boldsymbol{\zeta}})\, d\tilde{\boldsymbol{\zeta}} \tag{2.20}$$

is fallacious; hence if Savage's Density Ratio (equation (2.21)) holds for one parametrization, it need not hold for the induced density under a new parametrization. In equation (3.30) of our "proof", the first equality holds if $J(\partial\boldsymbol{\eta}/\partial\boldsymbol{\eta}^*)(\boldsymbol{\eta}_0, \boldsymbol{\zeta})$ is constant in $\boldsymbol{\zeta}$. For the given log-odds example, $\partial\eta/\partial\eta^* = \zeta$ (read $\zeta^* = \frac{1}{2}\log(\theta_1\theta_2)$).

Seymour Geisser and a referee have asked us about invariance. In the last weeks of his life, Leonard J. Savage, called our attention to the Borel-Kolmogorov paradox (Kolmogorov, *Foundations of Probability*, Chapter V, Section 2), whereby a conditional distribution depends on not just the conditioning event, but also on the parameter defining the event.

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