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CORRECTION NOTES

CORRECTION TO "A REMARK ON NONATOMIC MEASURES"

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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"

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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.