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DISCUSSION

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The paper presents an exciting and rich mix of foundational issues concerning conditional reasoning and methodological developments involving improved estimation in multiple linear regression. My discussion will focus on the foundational issues, though certain features of the improved estimators will be used to illustrate some of the issues.

My first attempt at understanding the fundamental issue raised by the paper was along the following lines (sticking with the criterion of "admissibility" for preciseness):

> Ancillarity Paradox—A procedure which is conditionally admissible for each value of an ancillary statistic can be unconditionally inadmissible.

As I thought about it, however, this did not seem to capture the true novelty of the paper, because this ancillarity paradox has long been known, going back at least as far as the Cox example concerning testing with two randomly differing sample sizes. Brown notes that there is a difference between tests and estima-