

NOTE

CORRECTION TO LINEAR FUNCTIONS OF ORDER STATISTICS  
WITH SMOOTH WEIGHT FUNCTIONS

BY STEPHEN M. STIGLER

*University of Wisconsin*

Dr. Helmut Rieder (in correspondence) and Professor Robert A. Wesley (in an unpublished thesis, Stanford Department of Statistics Technical Report No. 2, Dec. 1977) have pointed out an error in the proof of Theorem 4 of my paper (*Ann. Statist.* 2 676–693). In the proof that  $n^{\frac{1}{2}}(E(S_n) - \mu(J, F)) \rightarrow 0$ , the assertions (page 685–6) bounding  $\sup H_n^*(u; x)$  by an integrable function are incorrect, and the application of the dominated convergence theorem is not justified. It is not hard to show that the dominated convergence theorem can be invoked and the theorem proved if the additional condition  $J(u) = 0$  for  $u < \gamma$  and  $u > 1 - \gamma$ , some  $\gamma > 0$ , is added, but the more general theorem that is stated remains in doubt. The remainder of the results of the paper are unaffected, excepting only those portions of Theorems 6 and 7 that rely upon Theorem 4 and claim that the difference between  $E(S_n)$  and its asymptotic value is  $o(n^{-\frac{1}{2}})$  in the independent nonidentically distributed case. Wesley's thesis gives corrected statements and proofs to cover this latter case.

DEPARTMENT OF STATISTICS  
UNIVERSITY OF WISCONSIN  
1210 W. DAYTON ST.  
MADISON, WISCONSIN 53706

---

Received April 17, 1978.