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*Partitions and a conjecture of John Thompson.*

For a finite group  $G$ , let  $K(G)$  denote the field generated over  $\mathbb{Q}$  by its character values. For alternating groups, G. R. Robinson and J. G. Thompson determined  $K(A_n)$  as an explicit multiquadratic field. Confirming a speculation of Thompson, we show that arbitrary suitable multiquadratic fields are similarly generated by the values of  $A_n$ -characters restricted to elements whose orders are only divisible by ramified primes. We also extend this result to suitable linear groups and show that cyclotomic fields and subfields are generated by the values of characters restricted to elements with prime power order. (Received September 11, 2019)