Erratum: Magnetic behavior and Coulomb-lattice-gas ordering of Mn^{2+} and Sn^{4+} ions in K_2MnSnS_4 [Phys. Rev. B 55, 11056 (1997)]

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We report correction of two errors in the theory of Sec. IV A, which do not change the main conclusion. (i) The expression (2) for the susceptibility of n spin-5/2 particles is missing the van Vleck function $\omega(S)$ $=$[number of states with total spin quantum number S]$/(2S+1)$, for the case $n=3$. (ii) The statement that the sum over S is from 5/2 to $5n/2$ for n odd is incorrect for $n>1$; for the relevant case $n=3$, the sum is from 1/2 to 15/2. The missing $\omega(S)$ has a negligible effect, but the effect of the incorrect summation is non-negligible. Using the corrected expression for $\chi(T)_n$, we readjusted the weights $a_1=a_3$ and a_2 to 0.028 and 0.944, respectively (from 0.0155 and 0.969), thereby achieving a fit to the experimental data of similar high quality. Thus the main conclusion of this aspect of the paper, namely that the susceptibility is dominated by the case $n=2$ (2 Mn ions in a tetrameric cluster), remains valid.

Also, in the expression for a_i in the random case, the factor $4/i$ is a misprint; the binomial coefficient $\binom{4}{i}$ was intended.

