ERRATUM TO:
ON ENUMERATION OF CONJUGACY CLASSES
OF COXETER ELEMENTS

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(Communicated by Jim Haglund)

For the article with the above title appearing in the Proceedings of the American Mathematical Society, volume 136 of 2008, there are two typographical errors in the proof of Proposition 3.8 on page 4162:

- The inequality in line 3 of the proof should be reversed to read “... over Y’,” and thus \( n_c \geq \kappa(Y’) \).
- The inequality in the last line of the proof should be reversed to read “... of \( \mathcal{C}_e(Y) \), and thus \( n_c \leq \kappa(Y’) \).”

With these corrections the full proof becomes:

Proof. Let \( n_c \) denote the number of connected components of \( \mathcal{C}_e(Y) \). By Proposition 3.7, if \( [O_Y] \) and \( [O_Y'] \) are connected in \( \mathcal{C}_e(Y) \), then both classes are contained in the same \( \kappa \)-class over \( Y’ \), and thus \( n_c \geq \kappa(Y’) \).

It is clear that a \( \kappa \)-class contains all acyclic orientations for which there are representative permutations that are related by a sequence of adjacent transpositions of non-connected vertices in \( Y \) and cyclic shifts. Upon deletion of the cycle-edge \( e \), the adjacent transposition of the endpoints of \( e \) becomes permissible, and thus two distinct \( \kappa \)-classes in \( Y \) containing acyclic orientations that only differ on \( e \) are contained within the same \( \kappa \)-class over \( Y’ \). By reference to the underlying permutations, it follows that two \( \kappa \)-classes in \( Y \) are contained within the same \( \kappa \)-class in \( Y’ \) if and only if there is a sequence of \( \kappa \)-classes in \( Y \) where consecutive elements in the sequence contain acyclic orientations that differ precisely on \( e \). By the definition of \( \mathcal{C}_e(Y) \) it follows that all \( \kappa \)-classes over \( Y \) that merge so as to be contained within one \( \kappa \)-class in \( Y’ \) upon deletion of \( e \) are contained within the same connected component of \( \mathcal{C}_e(Y) \), and thus \( n_c \leq \kappa(Y’) \). \( \square \)

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