1158-05-319 **Nathan Williams***, nathan.williams1@utdallas.edu. *Braid Groups and Shards.*

An element w of a finite Coxeter group W naturally lifts to an element $\widetilde{w}$ of the corresponding braid group $B(W)$ by interpreting any reduced word in simple reflections for w as a word in the standard generators of $B(W)$. N. Reading defined a method for cutting hyperplanes into pieces called shards; for Coxeter arrangements, this gives geometric meaning to certain lattice-theoretic properties of the weak order. We prove that the set $\{\widetilde{w} \cdot \widetilde{s} \cdot \widetilde{w}^{-1} : s \text{ an ascent of } w\}$ is naturally indexed by shards by showing that two of Salvetti's generators for the pure braid group $P(W)$ are homotopic if and only if they go around the same shard. (Received March 03, 2020)