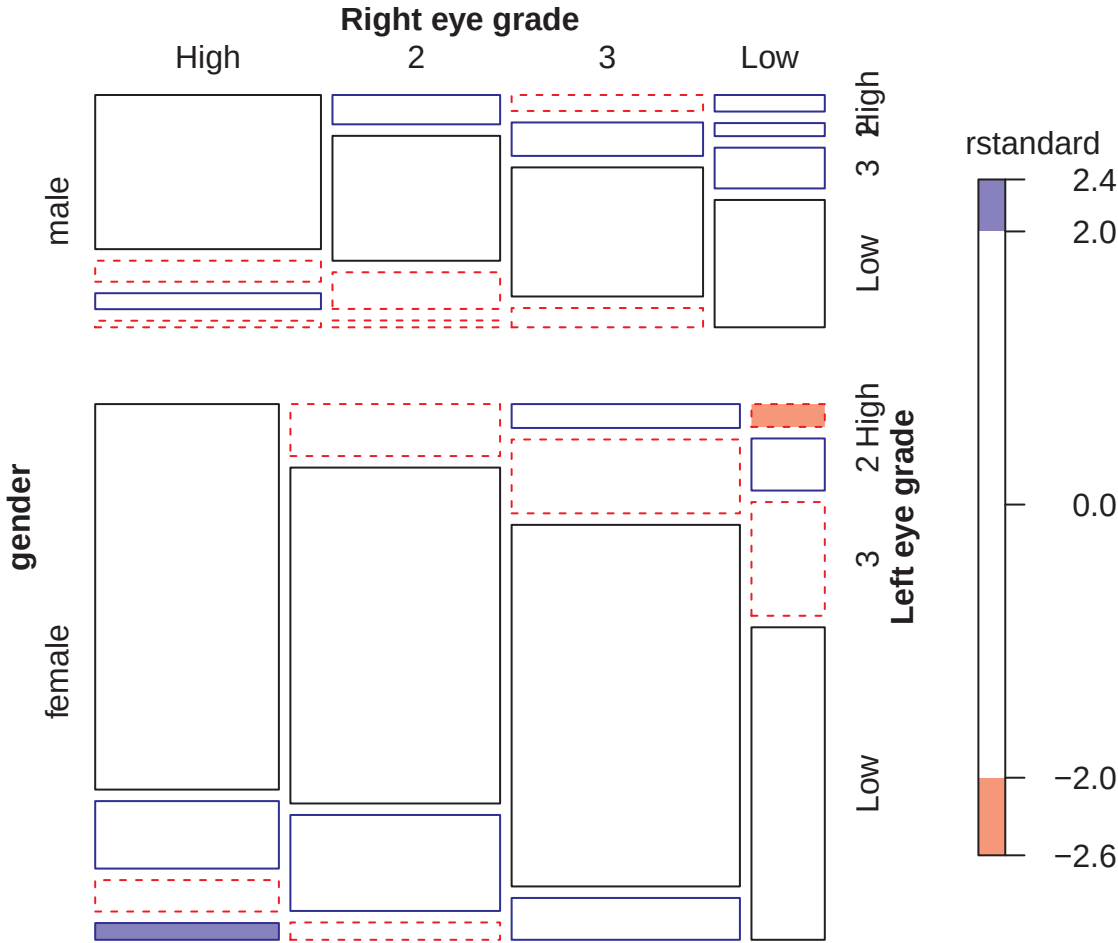Heterogeneous quasi−symmetry