## Rationalizable Strategies and Correlated Equilibrium

## Lemma

Every action used with positive probability by some player in a correlated equilibrium of a finite strategic game is rationalizable.

- For each player i let  $Z_i$  be the set of actions that player i uses with positive probability in the correlated equilibrium.
- $a_i \in Z_i$  is a best response to what belief over  $Z_{-i}$ ?
  - ▶ The same probability distribution as that generated by the strategies of other players, conditional on player *i* choosing to play *a<sub>i</sub>*.
  - Are these strategies a subset of  $Z_{-i}$ ? Yes.