## Rationalizable Strategies - Bernheim

## Definition

An action  $a_i \in A_i$  is rationalizable in the strategic game  $\{N, (A_i), (u_i)\}$  if for each  $j \in N$  there is a set  $Z_i \subset A_i$  such that

- $a_i \in Z_i$
- every action  $a_j \in Z_j$  is a best response to a belief  $u_j(a_j)$  of player j whose support is a subset of  $Z_{-j}$ .

## Matching pennies example

- How to rationalize H for player 1.
- Set  $Z_1 = \{H, T\}, Z_2 = \{H, T\}.$