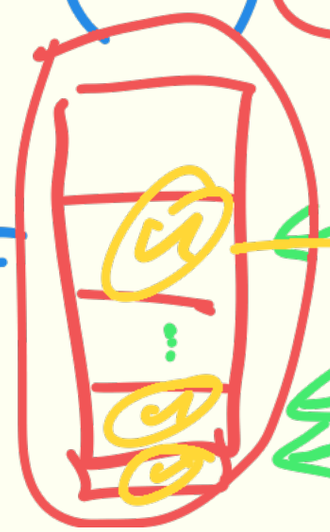
Best response condition

$\vec{\sigma}_r$ is a best response to σ_{-r} iff:

$$\vec{\sigma}_{r,i} > 0 \Rightarrow \left(A\sigma_c^T\right)_i = \max_k \left(A\sigma_c^T\right)_k$$

$$\vec{\sigma}_r = (0, .2, 0, \ldots, .5, .1)$$

$$\left(A\sigma_c^T\right) =$$



$$\sigma_r A \sigma_c^T = \sum_{i=1}^{m} \sigma_{ri} \left(A \sigma_c^T \right)_i$$

Let $u = \max_k \left(A \sigma_c^T \right)_k$

$$\sigma_r A \sigma_c^T = \sum_{i=1}^{m} \sigma_{ri} \left(u \ominus \left(A \sigma_c^T \right)_i \right)$$

$$= \sum_{i=1}^{m} \sigma_{ri} u - \sum_{i=1}^{m} \sigma_{ri} \left(u - \left(A \sigma_c^T \right)_i \right)$$

$$\sigma_r A \sigma_c^T = u - \sum_{i=1}^{m} \sigma_{ri} \left(u - \left(A \sigma_c^T \right)_i \right)$$