SHRINKAGE AND TYPES OF POOLING

1. **Complete pooling** Only one estimate for all players (underfitting)

3. **No pooling** Players are all independent, no information is shared (overfitting)

5. **Partial pooling** Players' estimates help inform each other. This means using an adaptive regularizing prior, as in the previous example.

BLOCKED EXPERIMENTAL DESIGNS

- Often in experiments there are natural blocks that exist non-intentionally.
- Even though these blocks were not created intentionally, they often still group experimental units that are more similar within blocks than between blocks due to unknown conditions.
- Analyzing results within each natural block makes it possible to separate treatment variability from variability due to the blocking factor that occurs unintentionally but systematically.