# Annie Duke - Thinking in bets

## 1. Life is Poker, not Chess

- Example of Pete Carrol (Seahawks coach) call decision in the closing seconds of Super Bowl XLIX in 2015.
  - All the media screamed: "Seahawks Lost Because of the WORST Call in Super Bowl History"
    - Yet, some experts believe it was a brilliant decision!
    - 👎 People blame the losers and praise the winners
      - The winner takes it all
      - The loser's standing small
      - 🔨 Similar examples are in "Waltzing with Bears: Managing Risk on Software Projects" by Tom DeMarco
- ⚠️ A bad result does not mean that there was a bad decision!
  - The decision may be great, but due to bad luck the result could be bad
- "System 1" (by Kahneman) is responsible for such fast-thinking
  - 👎 Our "fast-thinking" wrongly suggests that
    - good result is a causation of good decision
    - bad result is a causation of bad decision
- Poker vs. chess
  - John von Neumann - a key worker in Manhattan Project, author of mutually assured destruction (MAD) for Cold War, an inventor of Games Theory, told:
    - Chess
      - is not a "game"
      - is a well-defined form of computation
    - Real "game"
      - consists of
        - incomplete information
        - bluffing
        - little tactics of deception
        - asking yourself what is the other man going to think I mean to do
        - greater influence of luck
      - Just like real life!
    - 👍 Poker is a real "game" and a good model of real life
  - Resulting, assuming that our decision-making is good or bad based on a small set of outcomes, is a pretty reasonable strategy for learning in chess
    - But not in poker, or life
- ⚠️ We underestimate what we don't know
  - "I flipped a coin and it landed heads four times in a row. How likely is that to occur?"
    - We don't know if coins of two-headed, of it is weighted to land on head, the flipper is a magician, etc...
    - 👍 The right answer should be "I'm not sure!"
- "I don't know" or "I'm not sure"
  - We regard those expressions as vague, unhelpful, and even evasive
    - We are trained in school that saying "I don't know" is a bad thing
  - 👍 But making peace with NOT KNOWING is a vital step to being a better decision-maker
    - 1. It is a more accurate representation of the world
    - 2. We are less likely to fall into the trap of black-and-white thinking
- Do not judge by result
  - ⚠️ Even second-best choice is not wrong - it is still better that the third-best choice
  - ⚠️ Don't say "I was right", "I told you so" or "I should have known"
  - ⚠️ The most successful investors in start-up companies have a majority of bad results
  - ⚠️ Winning $100 at blackjack feels as good to us as losing $50 feels bad to us
    - Because we don't like to lose too much!
    - Losing feels twice as strong as winning
    - ❓ Why do people them play lotteries? It is even an emotionally bad decision
  - 👍 Bon't be influenced by emotional swings!