What is it like to be a chess Grandmaster?

• Jonathan Rowson
The Seven Deadly Chess Sins
(Rowson, 2000)

• Thinking as the first and most pernicious sin!

• Taking thinking for granted is the ‘sin’.
What is it *like*?

- Mathematics
- Language
- Sport
  - Boxing?
- Driving a car?
- Playing a musical Instrument?
“The Modern Chess Game requires such tension, it is impossible for a normal human being to withstand.”

-Victor Kortchnoi (78)
‘Thinking’ Dimensions

• Cognitive
  – Patterns, Goals

• Emotional
  – Desire, Attachments, Resistance

• Volitional
  – Points, Prizes, Ratings, Reputations

• Aesthetic
  – ‘Too Beautiful’
• How do we cut through the jungle?
  • goals, concepts, thinking strategies….
Thinking Expertise?

• **Exper**tise
  – 10 years?
  – Overwhelming majority of Grandmasters started playing before they were ten
  – But is it easier to become an expert now?

• **Exper**: ‘to try, to be tested’; experiment

• **Exper**ience
  – “Experience is not what happens to you, it is what you do with what happens to you.”
  – Aldous Huxley
Playing Several People at once is easier than it looks...
When the monster came, Lola, like the peppered moth and the arctic hare, remained motionless and undetected. Harold, of course, was immediately devoured.
Patterns as Purposes

• Patterns are often purposes in disguise

• Affordances
  – Weak king is ‘for attacking’
  – Weak pawn is ‘for capturing’

• Chess Examples:
  – Chessbase
Arborescent Thinking

• Kotov’s tree of analysis

• “I don’t think like a tree. Do you think like a tree?”
  - Grandmaster Anthony Lein
Cognitive Load

• Bottleneck Problem

• Visual Image of board changes over time
  – Clearer
  – Also more ‘abstract’

• Implications for ‘Understanding’
Grandmasters as good Scientists

- Falsification

- Cowley & Byrne, Trinity College Dublin (2005)
Chess Humour

• “Perhaps the most important trait a player needs is a warped sense of humour”
  -Grandmaster Tony Miles

• Asymmetrical Pattern Recognition (De Bono)

• The importance of Surprising Ourselves
Storytelling

• Two actors
  – What is the setting?
  – What is the plot?

• “He’ll take this space here and try to push here, and I’ll counterattack here and…”

• Attention to narrative-busting details
Self-Deception
Knowing-that and Knowing-how

- Know-that:
  - bishops are better than knights in open positions
  - doubled pawns are bad
  - an attack on the wing should be countered in the centre
  - this position is a theoretical draw etc

- Know-how:
  - ‘keeps the pressure on’
  - ‘needlessly risky’
  - gives him a difficult decision to make etc.
What kinds of understanding do we want?

- “Those who say they understand chess, understand nothing.”
  —Grandmaster Robert Hübner.
• Thank you