Daniel Dennett on Minds, Patterns, and the Scientific Image
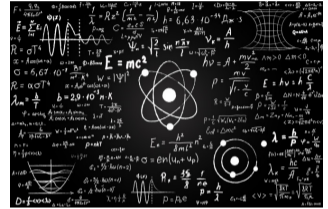## Mindscape, January 6, 2020

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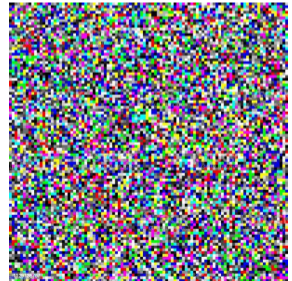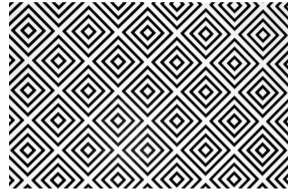
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2 February 2022

Scientific image

- Scientific image vs. manifest image
- electrons, quarks, atoms, photons vs. colors, sounds, dollars, homeruns
- "The world we live in maybe an illusion, but it's the only place you can get a good cup of coffee."
- "we have to learn how to get back and forth between these two images, the manifest image and the scientific image"
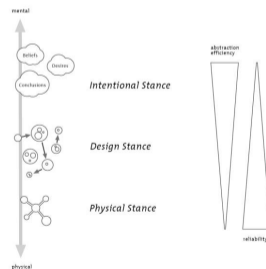- "there's only one world, the natural world, but there are many ways of talking about it"

Patterns

- **Real patterns**: "How big a file do you need to capture this particular phenomenon?"

- "It all depends on how much complexity there is in the picture."

- 'Well, what's a pattern? A pattern is a summary of concision, **something that permits you to generalize** so that you're better than a coin flip about what the next little bit of it is. If you've got any predictive edge at all on the data set that you're looking at, you got a pattern."

- "Evolution, natural selection has designed organisms to be **ruthless pattern finders**, to ignore almost all the information that's officially available at their surfaces and just focusing on what matters to them."

- 'What science does is finds pattern but it's also what the manifest image does."

- "...if we have the concept of a pattern, we do have some pretty good test as to whether it's real. That is to put it bluntly, **can you make money betting on it**? If you can, it's predictive, it's real."

Intentional stance

- "... the intentional stance patterns are the set of patterns that have to do with living agents, and non living agents, that living agents have made. I don't think there's any other non-living agents."

- "you can explain it in terms of it's purpose ... rather than its atoms"

- "I like to say we're robots made of robots made of robots made of robots made of robots."

- "I think the key element to being an agent is having a **history**... A history that makes a difference, that is something can happen to it, that changes it and that change is that again, it has a sort of **memory**."

- **Note. Relation to agency?**

Space of reasons

- "Human minds are really different. And they're different precisely because they are **obliged to articulate reasons**."

- "...it's an imperfect business and some are better than others but it's the fundamental basis for morality."

- "If you are responsible it's because you respond to reason..."

- Animals: "pure stimulus and response" (the gaselle and the lion)

    - "...the reasons are clear but they're not the reasons of the organisms involved"
    - "don't think that the lion understands this or that the gazelle understands this"
    - "AlphaGo doesn't know why it puts a certain token on the Go board"
    - "the ribosome doesn't know"

- "The intentional stance... It's like an instinct."

- "... we can see intention where there's none. We're very good at that. It's called paranoia."
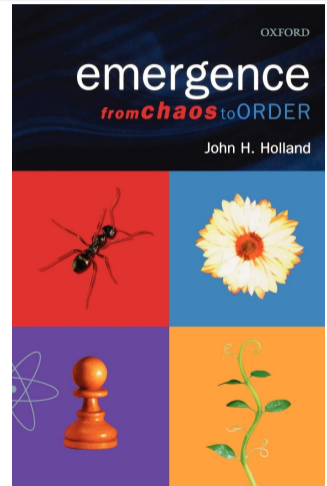
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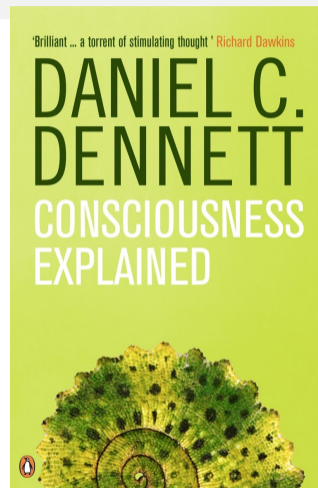- **Note. Explicit vs. implicit rules.**

Emergence

- "Emergence is a word that I don't use much because it has a sordid history in philosophy where emergence comes to mean woo woo, inexplicable."
- "... when John Holland wrote his book Emergence ... I completely approve of John Holland's work on emergence, because it does not mean that this is an inexplicable pattern..."

Consciousness

- "the idea that it's one thing, that everything in the universe is either conscious or not, that it's the light is on or the light is off, ... a fundamental error"

- "It's just amazing how many really deep and clever thinkers can't get out of their heads that consciousness is all or nothing. And I think, no, no, **it's emergent**."

- "the question, where do you draw the line, is an ill motivated question"

- "SC: Do you have a simple definition of what consciousness is that you prefer?
  DD: No. [chuckle]
  SC: You did write a book called, Consciousness Explained, so this might be an okay question."

- "Human consciousness, is much different from the consciousness of any other species. ... well there's many reasons. One is that consciousness has a **moral dimension**."

- "...almost nobody wants to hold any non-human species responsible, morally responsible for their behavior. That's key."

- "A bear that kills a tourist has not committed murder"

'Brilliant ... a torrent of stimulating thought' Richard Dawkins
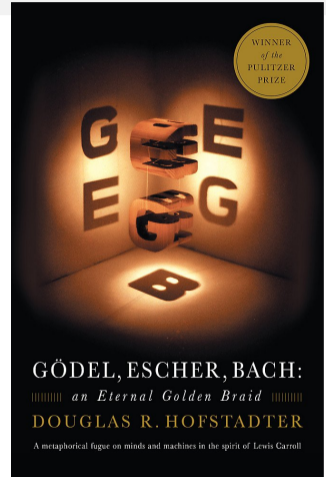
DANIEL C. DENNETT

CONSCIOUSNESS EXPLAINED

Degrees of freedom and moral agents

- "degree of freedom is an opportunity for control"
- "we have orders of magnitude more degrees of freedom than a bear does"
- "With roughly the same number of cells ... but the complexity is much higher."
- Moral agent: "how many degrees of freedom are available for control"
- "a moral agent is simply a human being"
- "A human being that is mature enough ... to control the degrees of freedom that matter ... and to be able to foresee and understand the outcomes of possible actions and act accordingly."

I am a Strange Loop

- **Douglas Hofstadter**:
  - Gödel, Escher, Bach
  - I am a Strange Loop
  - The Mind's I
- "recursive self-awareness idea"
- "Recursion, it's this capacity for indefinite reflection, and reflection on reflection. Because whenever you can reflect in this way, in effect you create a new object to think about."
- "Whenever we see a clever animal or animal doing something that is appropriate and reasonable, sly, we find it almost irresistible to attribute to the animal that understanding that we have of what it's doing, and the fact is that very often it's clueless."
- "And that's even true of a lot of human behavior."
- **Reflexivity**

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GÖDEL, ESCHER, BACH:
an Eternal Golden Braid
DOUGLAS R. HOFSTADTER
A metaphorical fugue on minds and machines in the spirit of Lewis Carroll

Transparency as a drive toward consciousness

- "Malcolm MacIver ... one of the major transitions that led to consciousness was when fish climbed up on land"

- "Once you climb up on land and you can see for kilometers, there's a new space of possibilities that opens up, namely imagine different possible things to do and contemplate which one would be best."

- "Andrew Parker's idea about the **Cambrian explosion** ... the shallow ocean became transparent in a way it hadn't been before, and this suddenly permitted distal perception, permitted eyesight."

- "...the arms race of predator and prey locomotion, camouflage, armor, this all was generated by a growing transparency"

- "...hat we're facing right now is the second great transparency, and that's the **electronic transparency**. And everybody's now worried, and so they should be, about privacy. And we can now see farther and we can see into things we could never see into before, but we can also be watched and we can be seen."