The Design of Everyday Things by Don Norman
Chapter 2

The Psychopathology of Everyday Actions

Presenter: Dane Camphausen

COW Cards

Gulfs of Execution and Evaluation

- Gulf of Execution -> trying to figure out how operates
- Gulf of Evaluation -> figure out what happened

- In the COW card example
- The swipe of the card (Execution)
- Swiping too fast or too slow/ possible swipe of wrong direction (Evaluation)

Seven Stages of Action

- Split into two parts:
  - Executing the action ("doing")
  - Evaluation the results ("interpreting")

Root cause Analysis

- Asking "Why" until the ultimate, fundamental cause of the activity is reached

- Finding what the real goal is

Subconscious

- The mind is more difficult to comprehend then actions

- Most of human behavior is a result of subconscious processes

- Moving body parts is subconscious

- Conscious attention is necessary to learn most things

- Which then turns into "overlearning"

Conscious

- Slow and Labored

- Where we slowly ponder decisions

Subconscious vs. Conscious

Subconscious	Conscious
Fast	Slow
Automatic	Controlled
Multiple Resources	Limited Resources
Controls Skilled Behavior	Invoked for novel situations: when learning, when in danger, when things go wrong

Three Levels of Processing

- The Visceral level
    - Making quick judgements about the environment (Good,bad,safe,dangerous)
    - Fast and automatic

- The Behavioral level
    - Learned skills, triggered by situations
    - Sub

- The Reflective level
    - Home of conscious cognition
    - Reflection

Questions to Ponder

- Do we run and flee because some event happened that made us afraid?

- Or are we afraid because our conscious, reflective mind notices that we are running?

Conceptual Models

- Conceptual models are a form of story, resulting from our predisposition to find explanations predict the outcome of our actions and handle unexpected occurrences

- From fragmentary evidence with only a poor understanding of what is happing

Thermostat

- An example in the book

- No evidence of its operation

- Too cold set higher hopefully it will get warm

Blame

- Expecting to do something to expect a result
  - i.e. pressing iPhone screen many times after not registering first time

- We are apt to blame ourselves

- Fact: law requires doors in public places to open outward to push open in case of emergency

Learned Helplessness

- People experience repeated failure at a task

- Therefore, in our mind task can not be done

- The more they have troubled the more helpless they may feel, believing that they may feel, believing that they must be technically or mechanically inept

- Mathematics phobia

Positive Psychology

- 21st century focuses on positive psychology a culture of positive thinking

- FAIL IS TO LEARN

- No idea how succeeded sometimes
  - "Fail often, fail fast"

Seven Design Principles

- Feedforward

  - The information that helps answer questions of execution

- Feedback

  - The information that aids in understanding what has happened