

# 8 Mental Models: Effective Thinking

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## What are Mental Models?

Mental Models are systems of thinking, *tools*, used to understand and relate new information in different contexts. These *tools* apply to nearly all domains and subjects as they are time-tested. Mental models are applied thinking, *mental carpentry*, and condition you to forge your own set of rules based on patterns in systems.

Find the common principles across domains. Use a core idea from one subject to solve another.

## Further Reading

*Poor Charlie's Almanack*

*Mental Models: 30 thinking tools that separate average from exceptional*

*Range: Why Generalists Triumph in a Specialized World*

Nissam Taleb's *Incerto Series*

## Content Overview

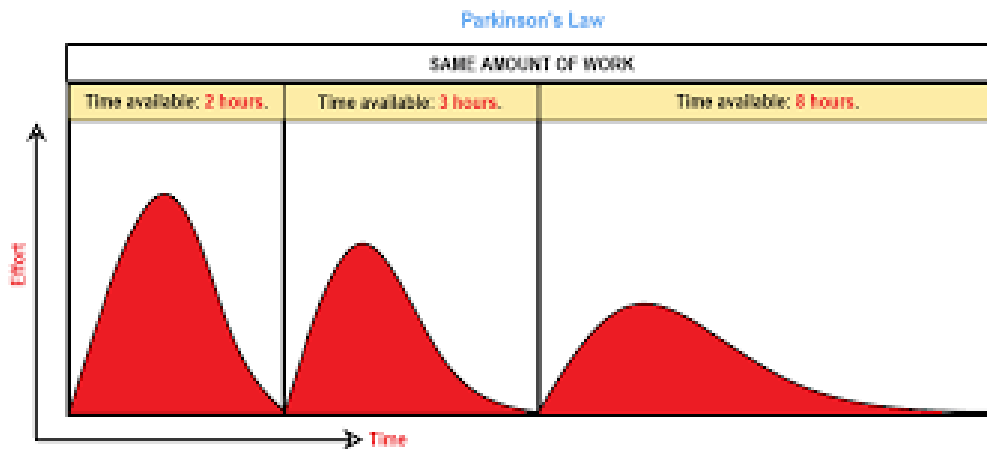
1. Parkinson's Law
2. Sturgeon's Law
3. Eisenhower Matrix
4. Second-Order Thinking
5. Pareto Principle
6. Regret Minimization
7. Avoid Path of Least Resistance
8. Dunning-Kruger Effect



## 1. Parkinson's Law

*Works expands to fill the time allotted to complete it*

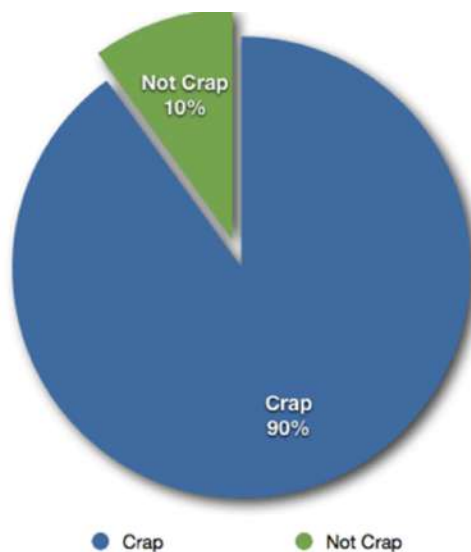
- a) (5th Grade Explanation) "If you have 10 days to finish homework you take 10 days vs 5 days to finish you then spend 5 days. The grade will not be much better if at all."
- b) (Applications) Productivity, Teamwork, Management, Politics, Business



## 2. Sturgeon's Law

*90% of everything is crap*

- a) "Your thoughts, words, activities are usually useless (noise) burying your good decisions and ideas."
- b) Research, Conversations, Creativity



### 3. Eisenhower Matrix

*Prioritize action by distinguishing between Urgent and Important activities*

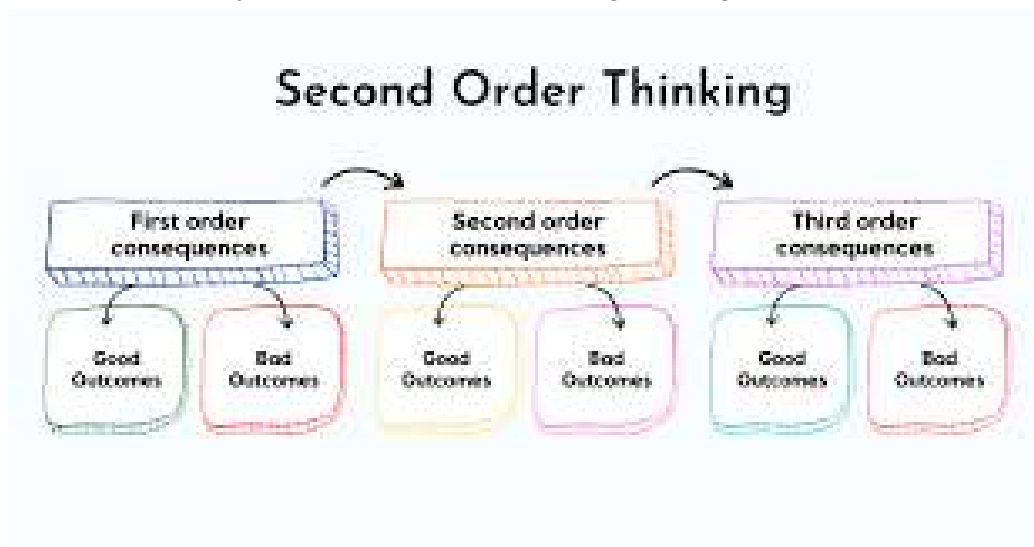
- a) "Tackle your most important tasks by order of due date."
- b) Time Management



### 4. Second-Order Thinking

*Visualize contingent scenarios resulting from initial decisions you might make. Analyze cause and effect chain reaction of scenarios*

- a) "Hitting your classmate may get you sent to the office, which may get you detention, which may take your recess, which will prevent you from playing dodgeball."
- b) Fundamental Analysis, Business, War, Investing, Trolling



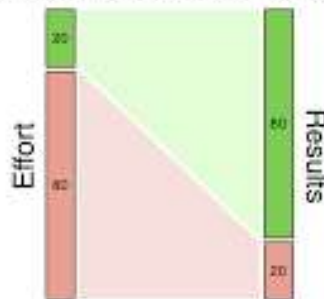
## 5. Pareto Principle: 80/20 Rule

*Roughly 80% of output comes from 20% of input in an unbounded domain and 20% of that 20% produce 80% of 80% of output and so on*

- a) "80% of girl scout cookies will be sold by only 20% of the girl scouts."
- b) Wealth, Relationships, Sales, Popularity, Marketing, Media

### The 80-20 Rule

"For many events, roughly 80% of the effects come from 20% of the causes." - Pareto



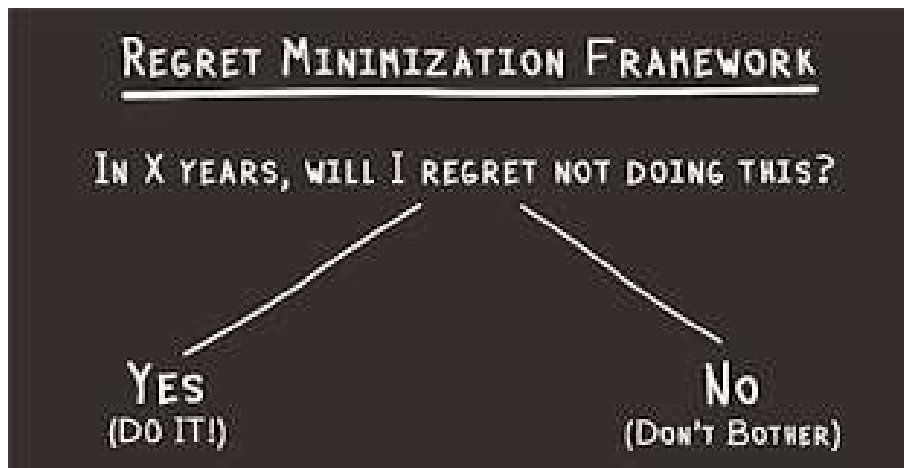
Therefore 20% of the effort produces 80% of the results but the last 20% of the results consumes 80% of the effort.

www.ProbablyCarnot.com

## 6. Regret Minimization

*Eliminate the evaluation of "regret" in your decision-making process by projecting yourself to old age*

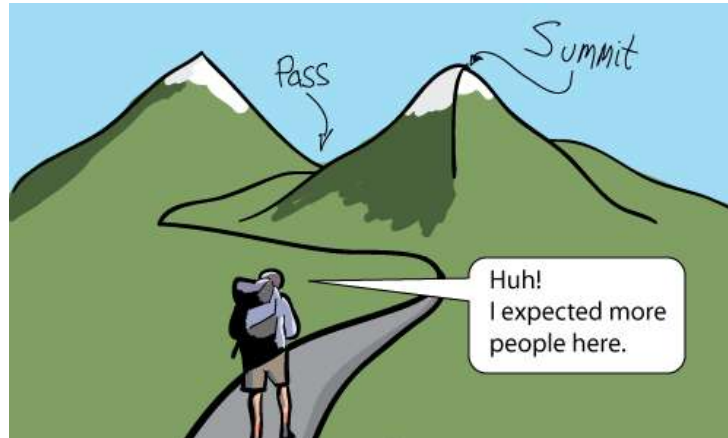
- a) "On your deathbed, if you would regret doing something then do NOT do it in the first place. If the reverse is true, do the opposite."
- b) Long-term planning of expensive or time-consuming decisions



## 7. Avoid the Path of Least Resistance

*If something is too easy or simple then you are missing out on valuable opportunities because humans are lazy and subconsciously pursue the path of least resistance*

- a) "There is an easy way and the right way. Choose."
- b) Fitness, Business, Relationships, Ethics, Self Development

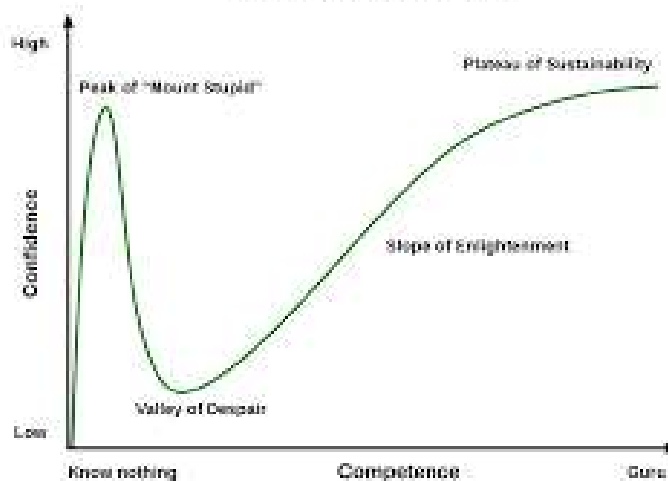


## 8. Dunning-Kruger Effect

*The least competent in a subject grossly overestimate their ability while the competent tend to underestimate their ability and question how much they understand themselves.*

- a) "The smart kids are usually humble enough to realize how much they have yet to learn while the dumb ones are too confident."
- b) Programming, Aviation, Martial Arts, Fitness, Poker, Investing, Golf

Dunning-Kruger Effect



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## **Appendix A**

### *Additional Mental Models*

Hanlon's Razor  
Parkinson's Law of Triviality  
Brifault's Law  
Occam's Razor  
40-70 Rule  
Reversible Decisions  
Murphy's Law  
First Principles  
Circle of Competence  
Correlation v Causation  
Mean Regression  
Schelling Points  
Black Swans  
Negativa (Inversion)  
Asymmetry  
Law of Diminishing Returns  
Bayes' Theorem  
Fundamental Attribution Error

## **Appendix B**

### *Sources*

<https://www.trainingpeaks.com/coach-blog/where-are-you-on-the-dunning-kruger-wiggle/>  
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Warm Regards,

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