



How People Think

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How People Think

- *How*, not *What* or *Why* People Think
 - Psychology, not religion or politics
- A theory of psychology ...
 - Daniel Kahneman's two-system model of the mind
- ... applied to *you*, CMS Class XII
 - Advice for preparing for exams
 - Advice for preparing for life



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- BSc, MSc, MSc, PhD, FIMA, MInstP
- UK government scientist for 24 years
- Author of *How to Make a Mind*
- Website <http://www.idealectic.com/>
- Visited CMS many times since 1983

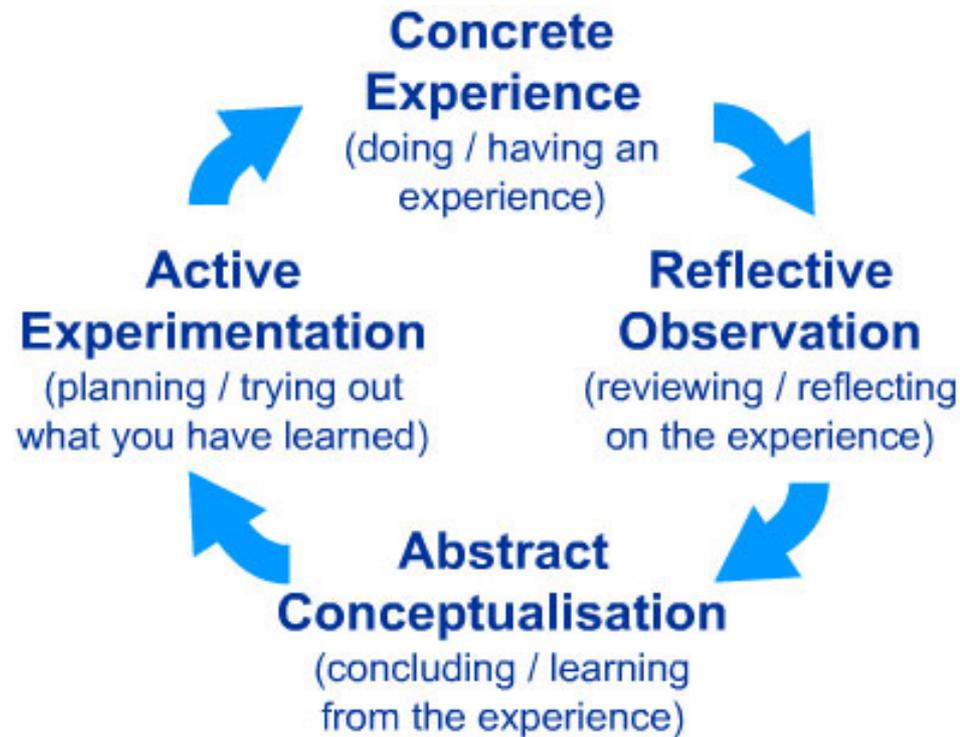


Professor Daniel Kahneman

- Israeli-American psychologist
- 2002 Nobel Laureate in Economic Sciences
- Author of *Thinking, Fast and Slow*
 - Two-system model of the mind
 - System 1/reactive thinking
 - System 2/deliberative thinking
 - <https://www.youtube.com/watch?v=7Ha34Vu1zZo>



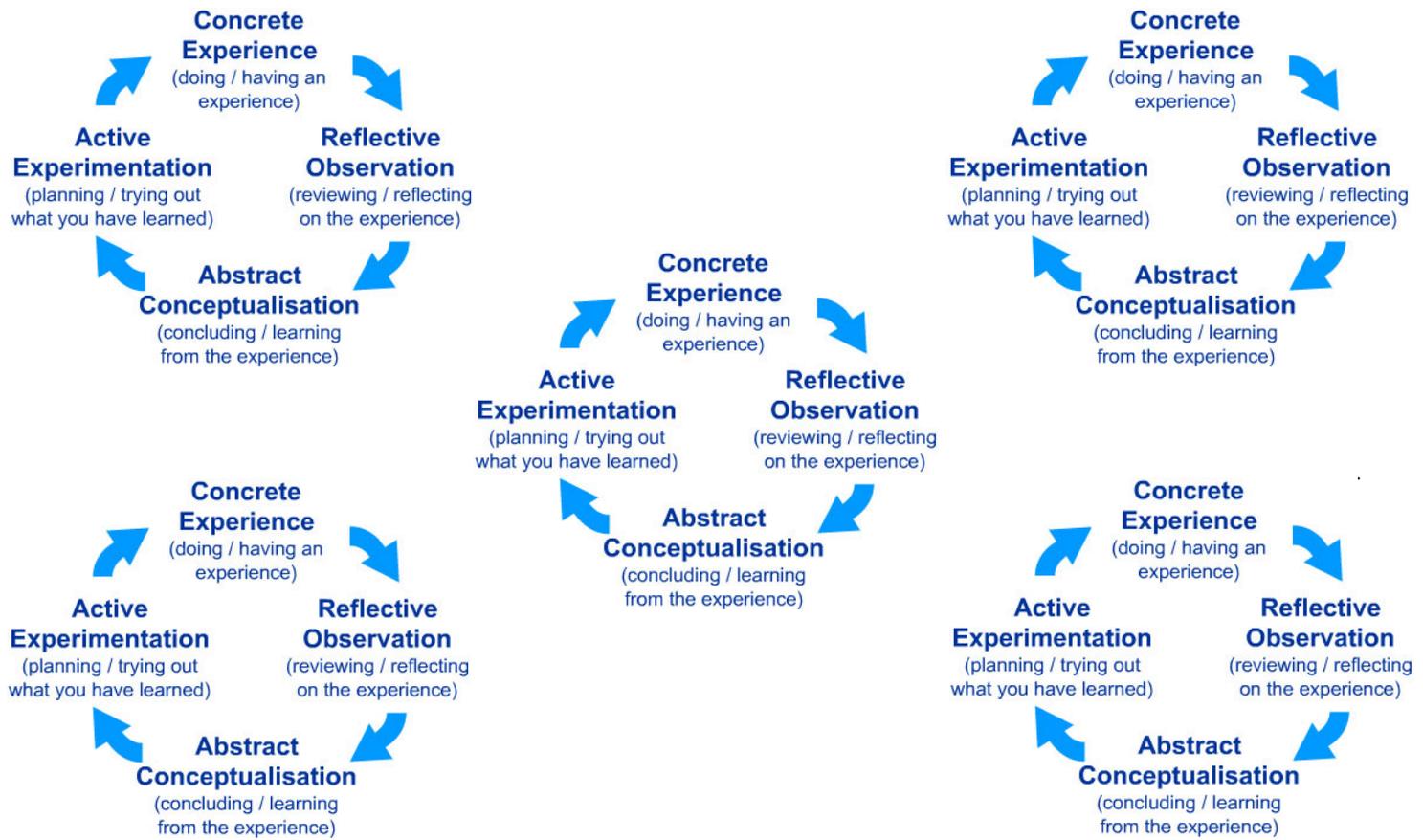
System 1/reactive thinking



Fast, automatic, frequent, emotional, stereotypic, subconscious



System 2/deliberative thinking



Slow, effortful, infrequent, logical, calculating, conscious



When to use System 1

- Living in the present, coping with the crowd
 - Reacting appropriately to the current situation
 - Surviving on your wits, *e.g.* when driving very fast
 - Active learning, *e.g.* preparing for exams



Preparing for exams

- Use System 1 active learning
 - Alternate between *observation* and *action*
 - Vital role of hand-eye coordination
 - Make good notes and copy them out by hand, as quickly and as often as possible
 - Test practical knowledge by doing past papers
- *Don't* use System 2 multi-perspective learning!
 - Put aside 'philosophical doubt'
 - Just answer the question



When to use System 2

- Seeing beyond the present, coping with solitude
 - Asking the right questions
 - Planning for all eventualities, *e.g.* death
 - Multi-perspective learning, *e.g.* finding the truth



What is truth?

- To a scientist:
 - *Correspondence* with verifiable evidence
 - *Concurrence* with a defined method/model/theory
- To a religious believer:
 - *Conformity* with established teachings
 - *Coherence* with an adopted world-view
- To an activist:
 - *Consequences* that are acceptable/desirable



Seekers after truth

- Empiricists, *e.g.* Hiuen Tsang
- Theorists, *e.g.* Birbal
- Conformists, *e.g.* Sita
- Idealists, *e.g.* Buddha
- Activists, *e.g.* Arjun

- Which is best?



Seeing the full picture

We shall use five terms as generating principle of our investigation. They are: Act, Scene, Agent, Agency, Purpose. In a rounded statement about motives, you must have some word that names the *act* (names what took place, in thought or deed), and another that names the *scene* (the background of the act, the situation in which it occurred); also, you must indicate what person or kind of person (*agent*) performed the act, what means or instruments he used (*agency*), and the *purpose*. Men may violently disagree about the purposes behind a given act, or about the character of the person who did it, or how he did it, or in what kind of situation he acted; or they may even insist upon totally different words to name the act itself. But be that as it may, any complete statement about motives will offer *some kind of* answers to these five questions: what was done (act), when or where it was done (scene), who did it (agent), how he did it (agency), and why (purpose).

Kenneth Burke, *A Grammar of Motives* (1945)



Summary: System 1 and System 2

- System 1/reactive thinking
 - Living in the present, coping with the crowd
 - Active learning, *e.g.* preparing for exams
- System 2/deliberative thinking
 - Seeing beyond the present, coping with solitude
 - Multi-perspective learning, *e.g.* finding the truth
- Which is best?



System 1 versus System 2



The majority of folk, those who follow the herd and who remain safe and secure within the comforting confines of their reactive System 1s, are perpetually haunted by the nagging worry that they're missing something in life. But for the instinctive herd-dweller the prospect of examining his own life is deeply unsettling, and so he seeks distraction in company, entertainment, activity, ritual, and oblivion. The remaining minority of folk, those who detach from the herd and who forge their own paths into the wilderness by means of their frame-breaking System 2s, are perpetually haunted by the gnawing anxiety that they're always alone and lonely. But for the instinctive herd-quitter the prospect of following a well-trodden path is a complete anathema, and so she indulges in her own company, pastimes, schemes, obsessions, and fantasies.

How to Make a Mind p.131



When to use System 1 *and* System 2

- Preparing for life
 - A mature person knows when to use System 1, and when to use System 2
 - ‘Hope for the best and prepare for the worst’

She would only point out the salvation that was latent in his own soul, and in the soul of every man. Only connect! That was the whole of her sermon. Only connect the prose and the passion, and both will be exalted, and human love will be seen at its height. Live in fragments no longer. Only connect, and the beast and the monk, robbed of the isolation that is life to either, will die.

E M Forster, *Howards End* (1910)



Bonus 1: Pen and paper



Bonus 2: The Road Not Taken