

Solving Problems & Making Decisions

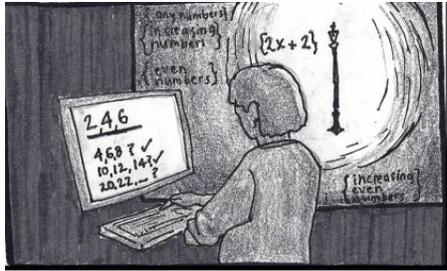
35-1 Problem Solving

Vocab:

Algorithms - step by step procedures that guarantees a solution.

Heuristics - a simple thinking strategy that often allows us to make judgements and solve problems efficiently. Often faster but more error-prone than algorithms

Insight - a sudden realization of a problem's solution



Confirmation Bias

- the tendency to more eagerly seek out and favor evidence favoring our ideas than evidence refuting them.

Example: Peter Wason's "2 4 6 Task"

Mental Set

- a tendency to approach a problem in one particular way, often one that has been successful in the past.

35-2 Forming Good and Bad Decisions and Judgments

Vocab:

Intuition: Our fast, automatic, unreasoned feelings and thoughts.

Representativeness Heuristic: To judge the likelihood of things in terms of how well they represent particular prototypes.

Availability Heuristic: To estimate the likelihood of events based on how mentally available they are.



mentally available they are.

Example: When the Islamic extremists killed three thousand people on 9/11 in a series of terrorist attacks the readily available memory of the dramatic event negatively shaped many people's views on muslims as a whole. People began to see terrorist attacks as very likely event to occur, when in reality you have a better chance of dying by accidental choking.

Overconfidence: the tendency to be more confident than correct. (ex. Going on a trip without a map).

Belief perseverance: clinging to one's initial conceptions after

the basis on which they were formed has been discredited. This often fuels social conflict.

Framing: the way an issue is posed; how an issue is framed can significantly affect decisions and judgments. This can be used as a powerful persuasion tool.

Example: Two surgeons tell two patients about the same surgery. The first tells his patient that the 10 percent of people die getting the surgery done. The second tells his patient that 90 percent of people because of the surgery. Both surgeons are describing the same surgery and same information, but the first patient will see it as a much bigger risk than the second patient.

Problem Solving: Strategies



Examples:

Finding hot chocolate in a supermarket. **Algorithm** would be searching every aisle and shelf until you find it - guaranteed you'll find it but it'll take a while. **Heuristics** would be searching breakfast and baking sections first - faster but not guaranteed.



Example:
There is a man who is short, skinny, wears glasses, and likes to read poetry. Is this man a truck driver or an Ivy League Professor of Classics? Most would choose Professor but there are 50 to 1 odds that this man is a Truck Driver

