Chinking/Cognition refers to all mental activity associated with processing, understanding, emembering and communicating information

To think about many things, we group them into concepts: the mental grouping of similar objects, events, or people.

Concepts are formed by definition (a triangle is a figure with three sides) or by prototypes (the best example of a concept with all its features).

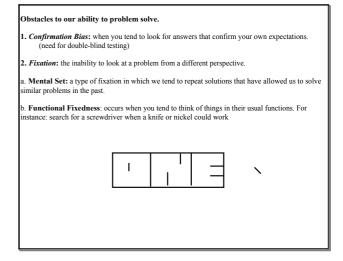
*young children often do not discriminate well when forming concepts using prototypes

Problem Solving

We attempt to solve problems using a variety of strategies such as:

- 1. Algorithm: A step by step procedure that always works (ex. quadratic formula). This method can be slow but you are less likely to make mistakes. An Algorithmic approach to unscramble letters to form a word would be to try all the possible combinations of letters. HPISYSC
- 2. Heuristics: "rule-of-thumb" strategies. This method is faster but you are more likely to make
- . Insight: A sudden flash of inspiration. This contrasts with strategic problem solving methods.
- . Trial and error: trying all possibilities. This one is time consuming

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Making Decisions and Forming Judgments

We often use intuition aided by heuristics

Heuristics, or rule-of-thumb strategies, determine our judgments and can often cause us to make poor decision. Cognitive psychologists name the following types of heuristics as possibly leading us to the wrong conclusion.

Representative Heuristics: (page 11 TG)

The tendency to judge things according to how well they match a particular prototype, how well something "represents" another. For example: if you were told that a person was strong, muscular, and fast, you might think that the person was some sort of athlete because those qualities best represent an athlete. However, the person could be a very fit teacher.

- the tendency to base the likelihood of events on how vivid you remembered them or how "available" the instance is in your memory. For example: when more than one plane crashes in just a couple of months, some may feel that flying is an unsafe means of transportation

if an event is easily recalled, we assume it is common

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Overconfidence and the way in which a question is posed will also determine our response to it.

3 Overconfidence

overestimating the accuracy of your judgments. Research shows that most of the time, we are overconfident in our opinions. (Lack of confidence can be equally problematic.)

the most confident are often not the most correct/accurate but are happier and make decisions

Framing: (TG p1810-6)
 the way information is set up or the way in which the question is asked ("framed").
 90% will live vs 10% will die

Belief Bias and Belief Perseverance

We are all susceptible to bias in the formation of our opinions.

Belief bias: the tendency to perceive what is conflicting with our beliefs to be illogical. We naturally tend to agree with ideas that closely resemble our own

Belief Perseverance: the tendency for your beliefs to remain or be "preserved" even when given evidence to the contrary.

Artificial Intelligence (AI)...read...!