Rational vs. Emotional Processes

I. Normative Models: assumes we try to make optimal decisions

*Expected Utility Theory: von Neumann & Morgenstern*
-proposes that decision-making involves making a computation of utility, an indication of overall value for each possible outcome in a decision-making scenario

-we then consider all possible alternatives and rank alternatives in order of preference

-this lets us determine whether each alternative is more desirable, less desirable, or equally desirable, compared to each competing one

-then we choose the most desirable one

Problems:
-people routinely choose things that they are not happy with, not good for them
-we often don't have access to all relevant information
-we often make decisions quickly, without time needed to weigh all possibilities
-our thought processes are susceptible to bias
-we often decide on basis on emotional response, not rational process

II. Descriptive Models: focus on how people actually make decisions
-try to account for tendencies humans have to misinterpret and misrepresent decision-making possibilities

*Heuristics in Decision Making: Kahneman & Tversky*
-mental shortcuts or rule of thumb that we typically use
-often occurs at unconscious level
-allows us to save conscious thought for other purposes
-can be adaptive because they allow for quick, reasonably good decisions, rather than weighing all the evidence

Problems: Can result in specific biases, which may lead to errors or faulty decisions

Examples:
1. Availability Heuristic: Would you rather live in Michigan or California?

2. Representativeness Heuristic: Identifying criminals in lineup
3. Framing Effects: way information is presented
Consider the following: The US is preparing for the outbreak of a disease that will kill 600 people. Two alternative programs are proposed. Scientific estimates of the consequences are as follows:

Scenario 1.
Program A: 200 people will be saved
Program B: One third probability that 600 will be saved and two-thirds probability that nobody will be saved.

Which do you choose?

Results:
Most choose Program A, but both are equivalent.
- Shows that we have preference for sure gain as opposed to chance of larger gain with additional chance of no gain in Program B.

Scenario 2:
If Program A is chosen, 400 people will die
If Program B is chosen, one third probability nobody will die and two thirds probability that 600 people will die

- Most choose Program B. Certain death of 400 is considered less preferable than likely, but uncertain death of 600. Idea of sure loss less appealing than uncertain but possibly greater loss. (NOTE application to gambling)

Yet in both scenarios, outcomes and probabilities are identical with exception that gains emphasized in first set of alternatives, losses emphasized in second scenario.

Loss Aversion: We weigh gains and losses differently- WE are generally more concerned with costs than benefits
Discussion:

4. Escalation of Commitment:
Let's say your elderly dad has a beloved car. Its reliability was legendary, but it has started to have problems. He gets one thing fixed, and something else goes wrong. Each fix doesn't cost much, but they add up, and then the problems start to get bigger. Your dad is convinced the next repair will get the car as good as new.
Would you advise him to pull the plug and get rid of the car?

Or consider this. A friend invests some money after getting a tip about a stock. The price soars, and your friend gains 10 percent overnight. He immediately
doubles his investment. A week later, the thing tanks, and he is in the red. A month later, it dives again, and he has lost a quarter of his investment. Should he cut his losses and sell?

A woman you care about falls in love. After many years of a happy relationship, the person she is with develops a vicious streak, starts smashing things and occasionally gives her a black eye.

Would you tell her to walk out of the relationship?

psychological entrapment comes in at least four guises:
1. the investment trap, in which we try to recover sunk costs by throwing good money after bad;
2. the time delay trap, in which a short-term benefit carries the seed of long-term problems;
3. the deterioration trap, in which things that started out well slowly get worse;
4. the ignorance trap, in which hidden risks surface suddenly.

5. Affective Forecasting: Expectation for how a decision will affect us in the future is powerful force in decision-making.

-However, we are not good at predicting how we will feel in future

-After being diagnosed with serious illness, breaking up with partner, moving to new state, taking new job.

6. Number of choices: are more choices always better?
- too much can make people miserable

Satisficers vs. Maximizers

1. satisficers: choose an option that sufficiently satisfies needs
2. maximizers: always seek to make the best possible choices, laboriously checking out alternatives, comparing prices, reviews, etc. Often feel frustrated and often paralyzed by alternatives. Tend to be more unhappy with choice and experience regret

Schwartz, et al, Maximizing versus Satisficing: happiness is a matter of Choice

Role of Emotion in Decision-Making
Greene, et. al. An fMRI Investigation of Emotional Engagement in Moral Judgement
-Trolley Dilemma