

Perspective-taking

Bridging the gap between intuitive and
rational decision making

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Outline

Rationality

Irrational human?

Research into the perspective-taking technique

Discussion

Rationality



How to do the right
thing at all times

The idea that changed
the world

nothing

Bernoulli's gift

$$E(X) = [X_i * p (X_i)]$$

Expected value =
Odds of Gain * Value of Gain

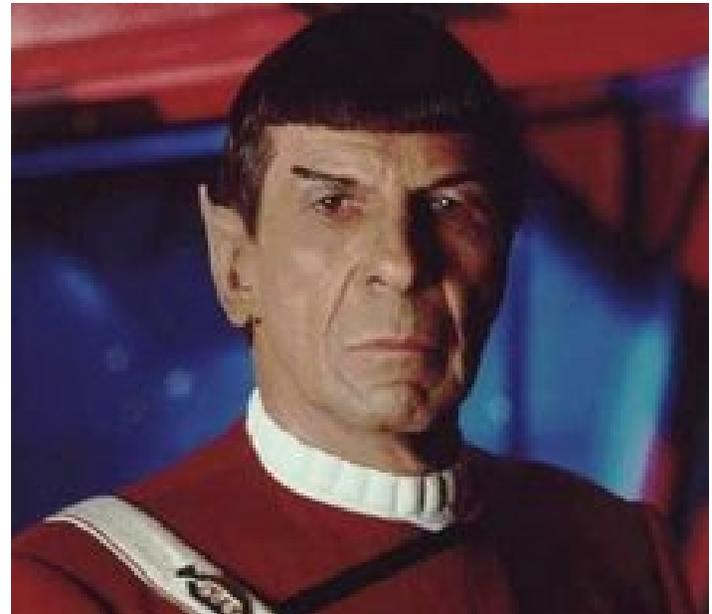
Homo economicus

Use all available information

Generate all alternative courses of action

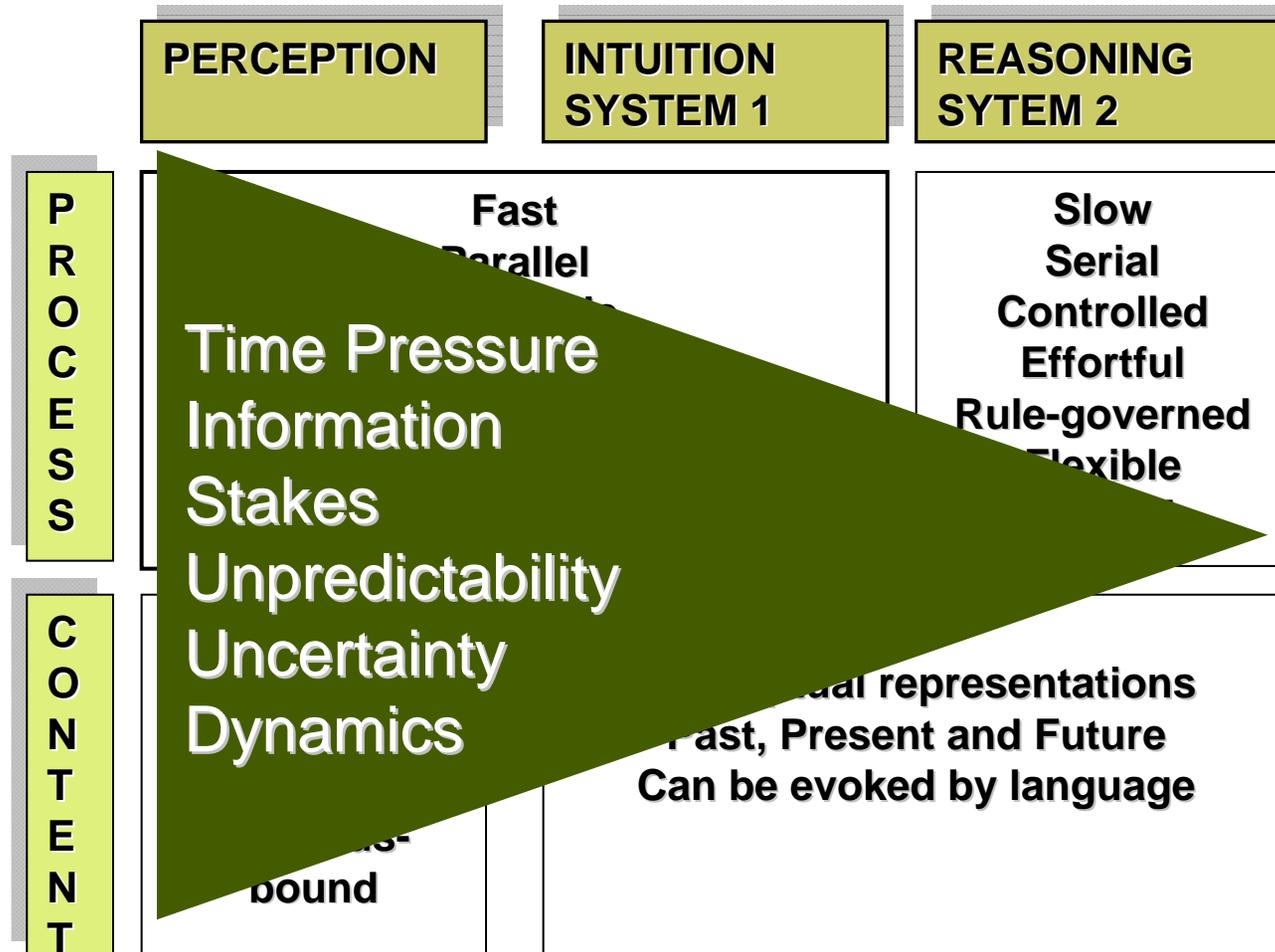
Weigh them accordingly

Find optimal solution





Dual-Process Model



Kahneman, 2003

Irrational humans?

Are there more race walkers or soccer players in the Netherlands?



Race walking

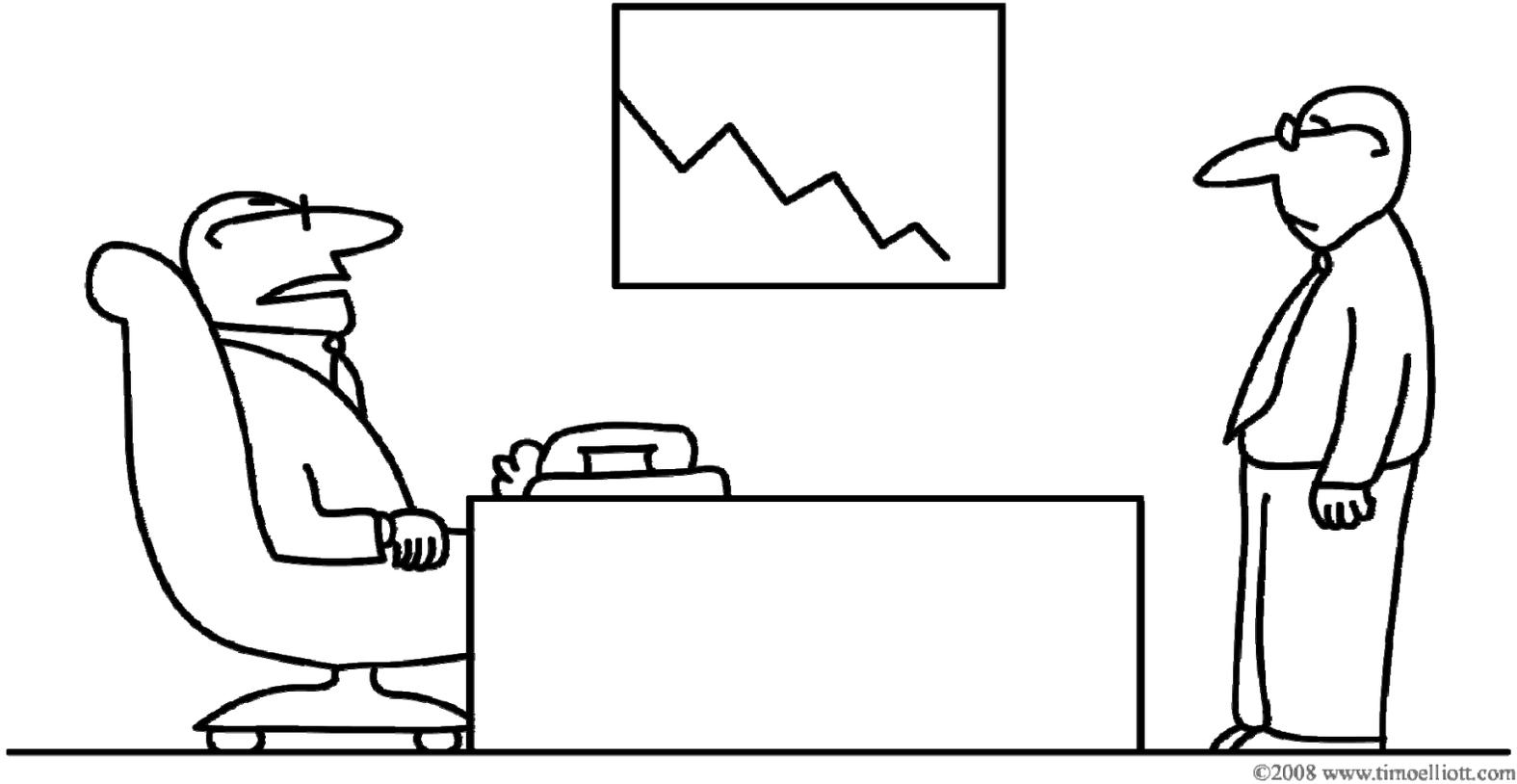


Soccer

Are there more 4-letter English words with
R in the 3rd place or in the 1st place?

— — R —
Fort, Bare, Dark

R — — —
Rich, Read, Rice



"It would appear, Hopkins, that your gut feel was only indigestion"

Power of intuition

Skilled intuitive decisions

Quick

Accurate

Gut feeling

Recognition Primed Decision Model

(Klein, 1997)

Military domain

Military domain is very complex:

Unpredictable

Dynamic

Uncertain

Time pressured

Military doctrine prescribes
rational models, but intuition
widely used



Experiences from the field

Rational process:

too timely

too cumbersome

too prescriptive

(Whitehurst, 2002)

The Gap

Discrepancy between
military doctrine and
the field

Use power of intuition,
but avoid errors



Research

quasi experimental study

perspective-taking technique

- Work intuitively initially

- Take multiple perspectives into account

- Adjust first option

Study

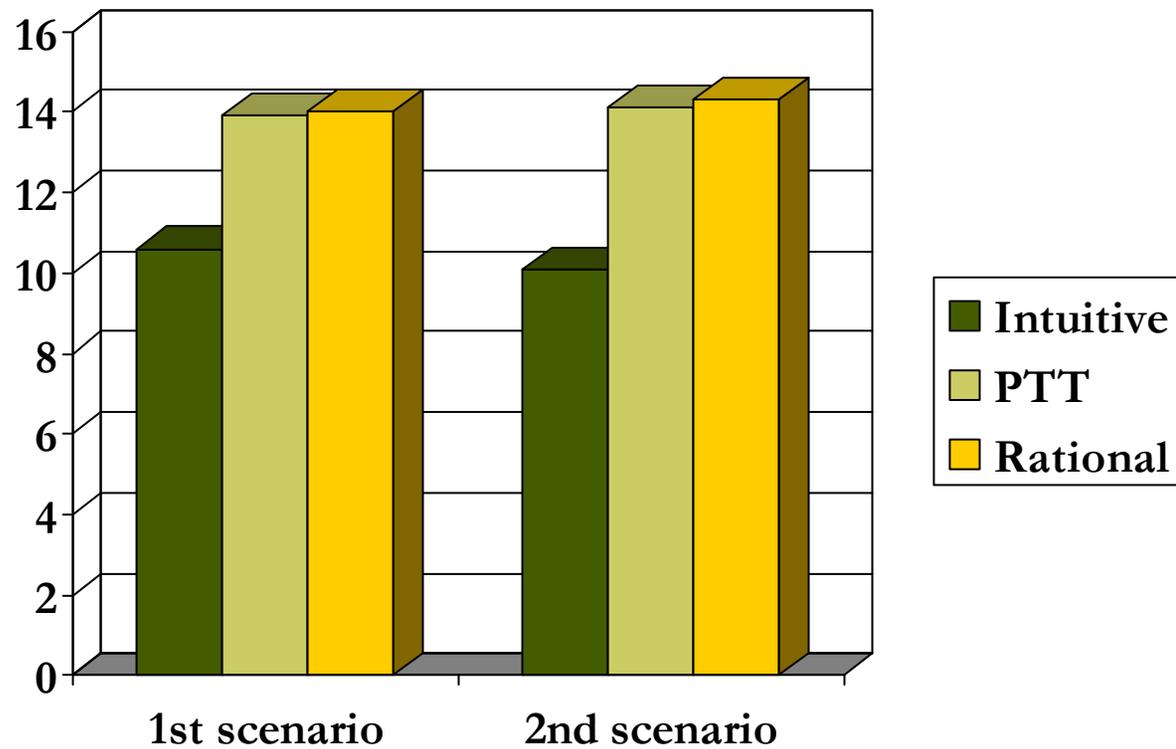
performed in military domain

compared 3 groups and their decision making processes on two scenarios

Rational	Intuitive	Intuitive and Perspective-taking
135 minutes 1 st scenario	75 minutes 1 st scenario	90 minutes 1 st scenario
75 minutes 2 nd scenario	30 minutes 2 nd scenario	45 minutes 3 rd scenario

Results

Promising results



Results

Intuitive decisions are sub-optimal

Perspective-taking and rational have similar quality

Perspective-taking realised in a much shorter time

(1 ½ hours, instead of 2 ¼ hours)

5 minutes of perspective-taking raises level of

condition to that of rational condition

Discussion

Questions?