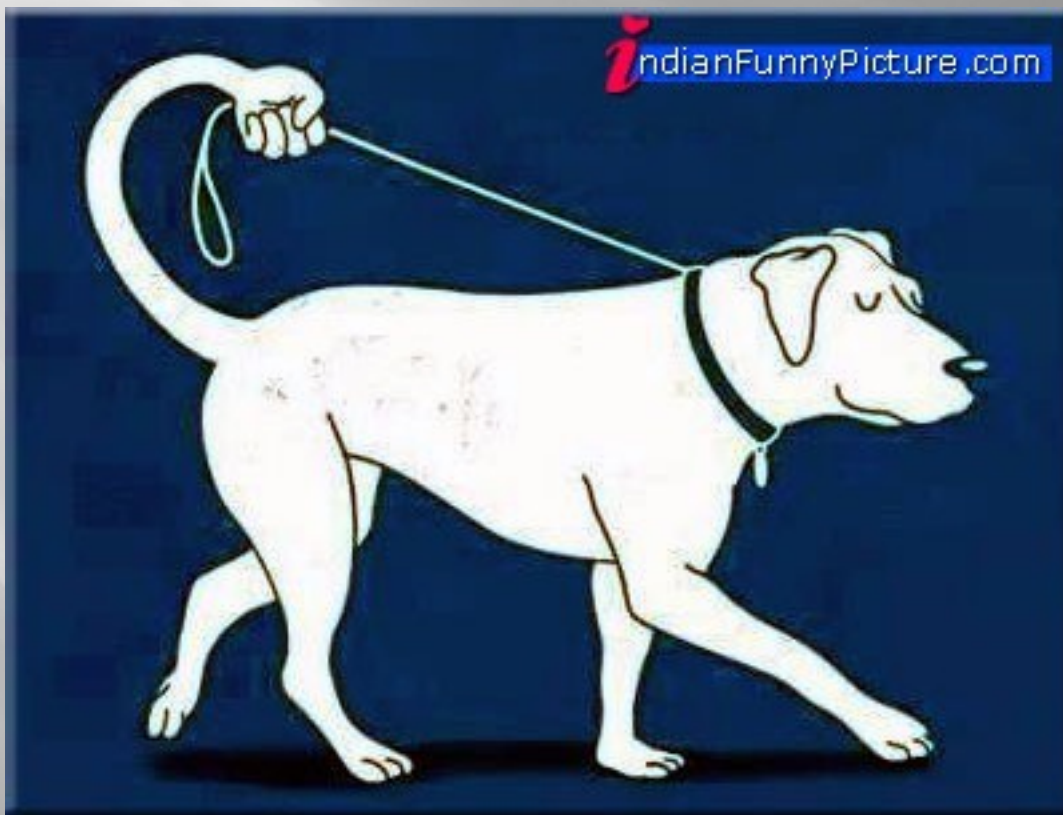




The Brittle Core of Humanity

How Self-Control Fails and How It Works



Irrational behaviour cont.

- Expected Utility Theory:

$$E_{\text{expectancy}} \times V_{\text{value}}$$



Irrational behaviour cont.

- Expected Utility Theory:

$$E_{\text{expectancy}} \times V_{\text{value}}$$



Irrational behaviour cont.

- Expected Utility Theory:

$$E_{\text{xpectancy}} \times V_{\text{alue}}$$



Irrational behaviour cont.

- Expected Utility Theory:

$$E_{\text{xpectancy}} \times V_{\text{alue}}$$



Irrational behaviour cont.

▣ Planning Fallacy

Daniel Kahneman



Irrational behaviour cont.

- ▣ **Planning Fallacy** – Kahneman's examples:

Estimate

- ▣ Plan to write a textbook on decision making
- ▣ Estimates of time necessary based on available information on resources:
 - ▣ 1,5 to 2,5 yrs

Irrational behaviour cont.

- ▣ **Planning Fallacy** – Kahneman's examples:

Estimate

- ▣ Plan to write a textbook on decision making
- ▣ Estimates of time of completion based on available information on resources:
- ▣ 1,5 to 2,5 yrs

Reality

- ▣ Asked a colleague about other teams who attempted the same
- ▣ **Only 40% success rate** (others abandoned the plan)
- ▣ The others **took around 10 yrs**
- ▣ Most teams' resources were better

Irrational behaviour cont.

- ▣ **Planning Fallacy** – Kahneman's examples:

Estimate

- ▣ New Scottish Parliament building – initial estimate **£40 million**
- ▣ Estimates of American homeowner of how much kitchen remodelling would cost: **\$18,658**

Reality

- ▣ Finally completed for **£431 million**
- ▣ Real cost: **\$38,769**

Irrational behaviour cont.

▣ Planning Fallacy

People tend to...

- ▣ Only consider best-case scenarios
- ▣ Disregard “statistics” on actual success rate of previous similar attempts

Why?

- ▣ Because we do not consider unexpected events and random disruptive factors, which are **almost always** present
- ▣ As specific information on them is **unavailable**, we do not factor them in

Irrational behaviour cont.

▣ **Availability heuristic**

People tend to...

- ▣ Rely on immediate examples that come to mind when considering a situation / problem
- ▣ Make decisions based on this immediate information
- ▣ This information is **primed** by context (different cues remind us of different things)
- ▣ The cues may include attributes of the situation, of the present alternatives, of surrounding objects, previous events, inner states, etc.
- ▣ In addition, we are hard-wired to pay more attention to certain pieces of information rather than others (losses, beginnings and endings, unique features, etc.)

Irrational behaviour cont.

- ▣ **Availability heuristic**

What the eye (mind) doesn't see the heart doesn't crave for.

How our motivation system works?

Analogy of three brains

- ▣ **Reptilian brain** – basic reflexes



Analogy of three brains

- ▣ **Reptilian brain** – basic reflexes
- ▣ **Mammalian brain** – emotions



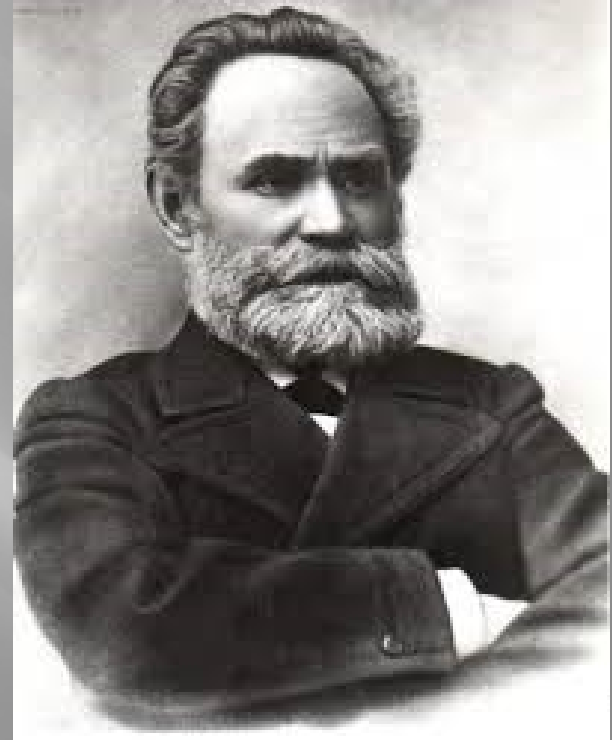
Analogy of three brains

- ▣ **Reptilian brain** – basic reflexes
- ▣ **Mammalian brain** – emotions
- ▣ **Human brain** – reasoning, mental representation, planning – delay of gratification



Mammalian brain

▣ I. P. Pavlov



Mammalian brain

- ▣ I. P. Pavlov
- ▣ Classical conditioning

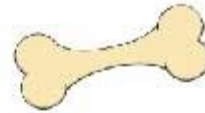


Classical Conditioning

Before conditioning

FOOD
(UCS)

SALIVATION
(UCR)



BELL

NO RESPONSE



During conditioning

BELL +
FOOD
(UCS)

SALIVATION
(UCR)



After conditioning

BELL
(CS)

SALIVATION
(CR)



Classical conditioning

Why is this important to us (humans)???

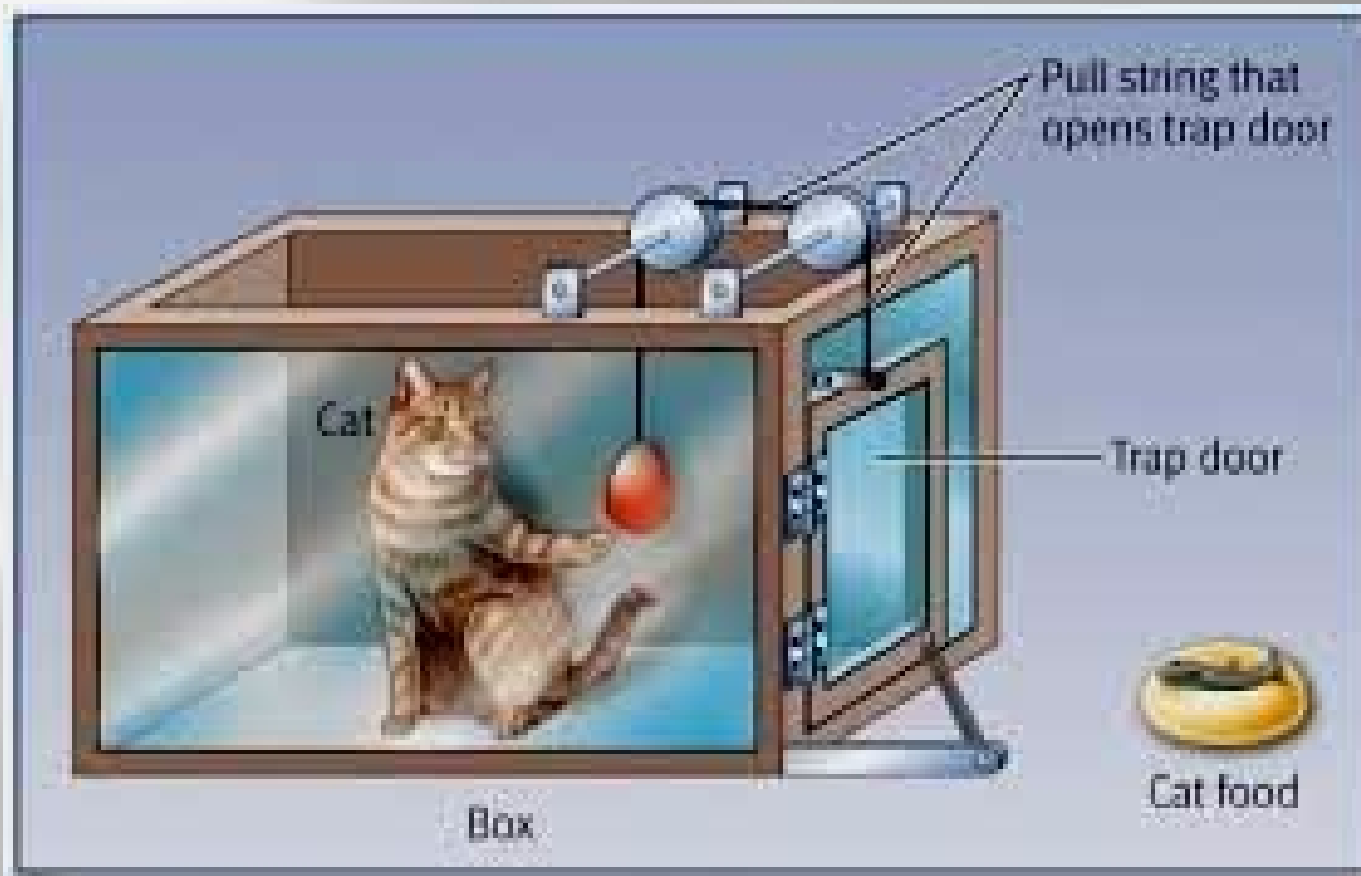
- ▣ Salivation in Pavlov's dogs signals **increased anticipation of reward = increased need**
- ▣ Cues in the environment previously associated with motivational states will become **signals** capable of **initiating those states** in the future

Mammalian brain

- ▣ E. L. Thorndike
- ▣ Instrumental learning



Instrumental Conditioning



Instrumental conditioning

Why is this important to us (humans)???

- ▣ Objects and situations can trigger **automatic behavioural responses = HABITS**
- ▣ Always intertwined with classical conditioning (a stimulus triggers a **motivational state** as well as a **behavioural reaction**)

Why is our behaviour not rational?

- ▣ Our decisions and behaviours are dependent on **immediate (here-and-now) cues previously associated with motivational states or hard-wired heuristic systems** rather than global judgment of advantages and disadvantages in different situations
- ▣ While we are capable of making **relatively** more global judgments, **the necessity and quality of making these judgments is ALSO influenced by the present context.**
- ▣ This is because our capacity of information processing is limited.

How to resist temptations?

Emotion regulation

▣ J. Gross



How to resist temptations?

Emotion regulation

- ▣ J. Gross
- ▣ **PREVENT THOSE EVIL STIMULI FROM ENTERING THE BRAIN AND PRODUCING AUTOMATIC RESPONSES!!!**
- ▣ **How...?**



How to resist temptations?

Emotion regulation

- ▣ Choose situation



How to resist temptations?

Emotion regulation

- ▣ Choose situation
- ▣ **Change situation**



How to resist temptations?

Emotion regulation

- ▣ Choose situation
- ▣ Change situation
- ▣ **Divert attention**



How to resist temptations?

Emotion regulation

- ▣ Choose situation
- ▣ Change situation
- ▣ Divert attention
- ▣ **Change thinking**



How to resist temptations?

Emotion regulation

- ▣ Choose situation
- ▣ Change situation
- ▣ Divert attention
- ▣ Change thinking
- ▣ **Act as if nothing happened**



How to resist temptations?

Emotion regulation – EFFECTIVENESS:

- ▣ **Situation selection**
- ▣ **Situation modification**
- ▣ **Attentional deployment**
- ▣ **Cognitive change**
- ▣ **Response modulation**



How to resist temptations?

Emotion regulation – EFFECTIVENESS:




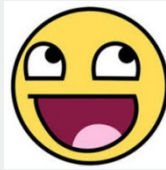

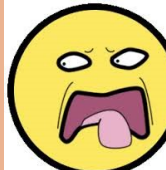
- ▣ **Situation selection**
- ▣ **Situation modification**
- ▣ **Attentional deployment**
- ▣ **Cognitive change**
- ▣ Response modulation



Reappraisal v. suppression

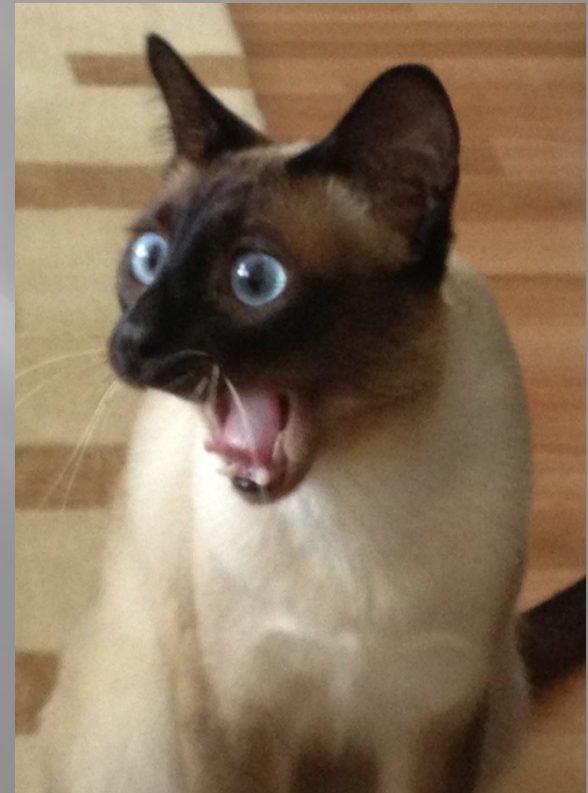
Gross, J. J. (1998). Antecedent-and response-focused emotion regulation: divergent consequences for experience, expression, and physiology. *Journal of personality and social psychology*, 74(1), 224.

Three groups watching a disgusting movie:

	Facial expressions	Physiological reactions
Group 1: No instruction		
Group 2: "Think of the movie in way that you'll feel nothing."		
Group 3: "Behave in a way so that others think you feel nothing."		

Human brain

The fact that we can exercise self-control should not be taken for granted...



Our self-control is like a muscle

- ▣ **Ego depletion**
- ▣ **Roy Baumeister**



Our self-control is like a muscle

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126(2), 247.

- ▣ It is a **limited but renewable resource** – it can get depleted
- ▣ It is **common for all types of self-control** (inhibition of automatic responses)
- ▣ This means that if we use it up for one activity (studying for a test) there won't be enough for another activity (being nice to your boss)

blue

green

red

yellow

Our self-control is like a muscle

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle?. *Psychological bulletin*, 126(2), 247.

GOOD NEWS:

- ▣ It can be restored – rest, motivational reinforcement, good plans/structure
- ▣ It can be used economically when necessary
- ▣ It can be trained
- ▣ **OVERTRAINING IS NOT TRAINING!!!**

Summary

- ▣ **Automatic responses have primacy over deliberate actions**
- ▣ **Automatic responses are often non-conscious and undisputed**
- ▣ **Automatic responses are context-dependent**
- ▣ **Overcoming automatic responses requires exercise of WILL which is based on limited resources**
- ▣ **It is therefore best to avoid triggers of automatic responses rather than trying to suppress the responses**

Additional materials

- ▣ Before attempting the second quiz, watch the video on the “Stanford marshmallow experiment” available in the interactive syllabus in the IS
- ▣ **Recommended materials:**
 - Roy Baumeister’s videos on ego depletion (for research examples)
 - James Gross’s video on emotion regulation

The Brittle Core of Humanity



Thank you!