ECO2003F

Katherine Eyal

The Theory of Consumer Behaviour:

Cognitive Limitations and Consumer Behaviour

Chapter 6 - lectures 20, 21, 22

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Chapter 6 - lectures 20, 21, 22

- Bounded Rationality
- Asymmetric Value Function
- Sunk Costs
- Out of pocket costs v.s. opportunity costs
- Affective forecasting errors
- Choice under Uncertainty
- Judgemental Heuristics and biases
- Psychophysics of perception
- Difficulty of deciding
- Self Control Pitfall

Rational Choice Theory

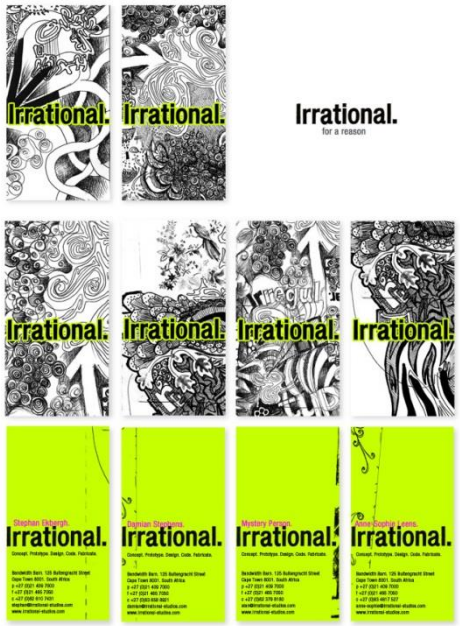
- If costs of doing X < benefits of doing X, then

Do X

- Act to further your self interest
- i.e. Act to maximise your utility
- Act in a logical and rational manner
- Take all the information available into account when making your decision
- Take ethics/morals into consideration?

Irrational Behaviour: does it make sense?

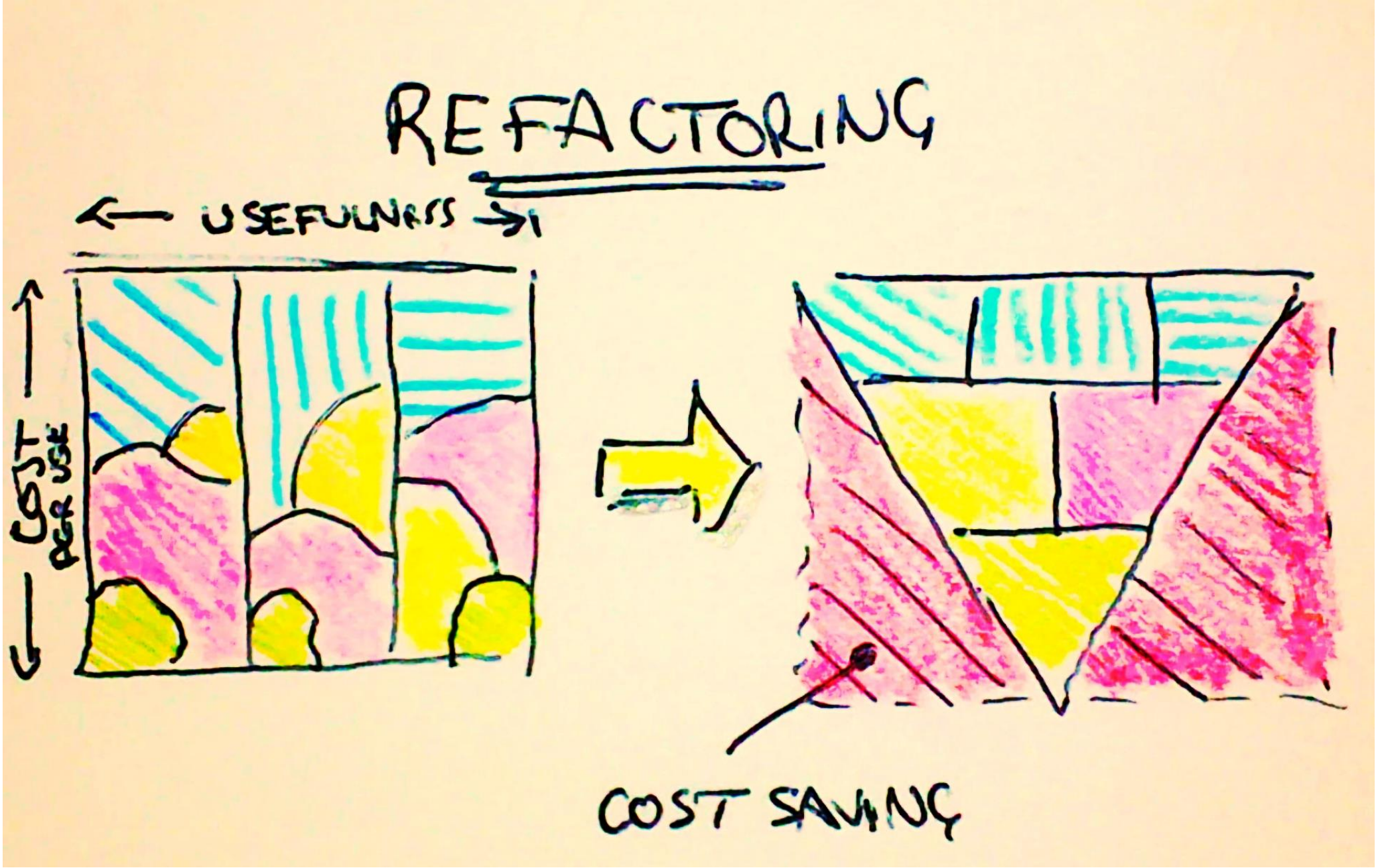
Do you tip the car guard outside your local pizza joint? And when you go to Butlers in Joburg?



?

Or return a lost suitcase full of cash?

Behavioural models are used to help us avoid common pitfalls in decision making.



SUNK COSTS

Sunk Costs

If you've paid for the indoor court, but an outdoor court is available, and it's a nice day, where do you decide to play?

If the test is postponed due to printer error, do you get angry?
Why?

Sunk costs should not affect decision making:
But they do.

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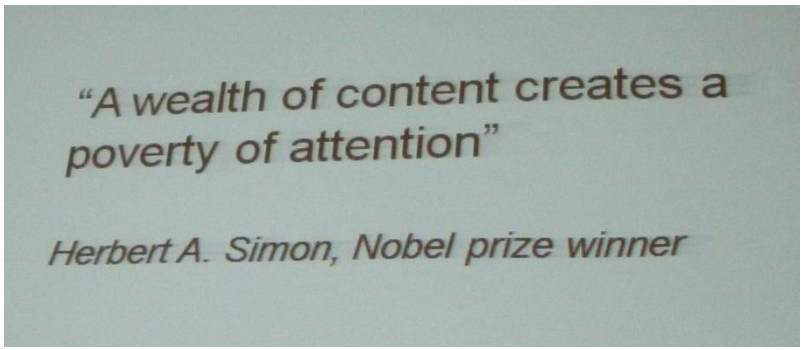
Bounded Rationality

How do we arrive at a decision?

Herbert Simon - we can't behave like rational economic agents. Why not?

What are **satisficers** and **maximisers**?

Is it **costly** to gather information?
Thus is it **rational** to be fully informed?



Bounded Rationality

Wealth is meant to be **fungible**

i.e. total wealth matters

But is it really?

Kahneman and Tversky example - losing tickets for the Lady Gaga concert - do we buy more?

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Asymmetric Value Function

E.g. Event A - parking fine of R800,
Event B - windfall from dead granny of R1000.

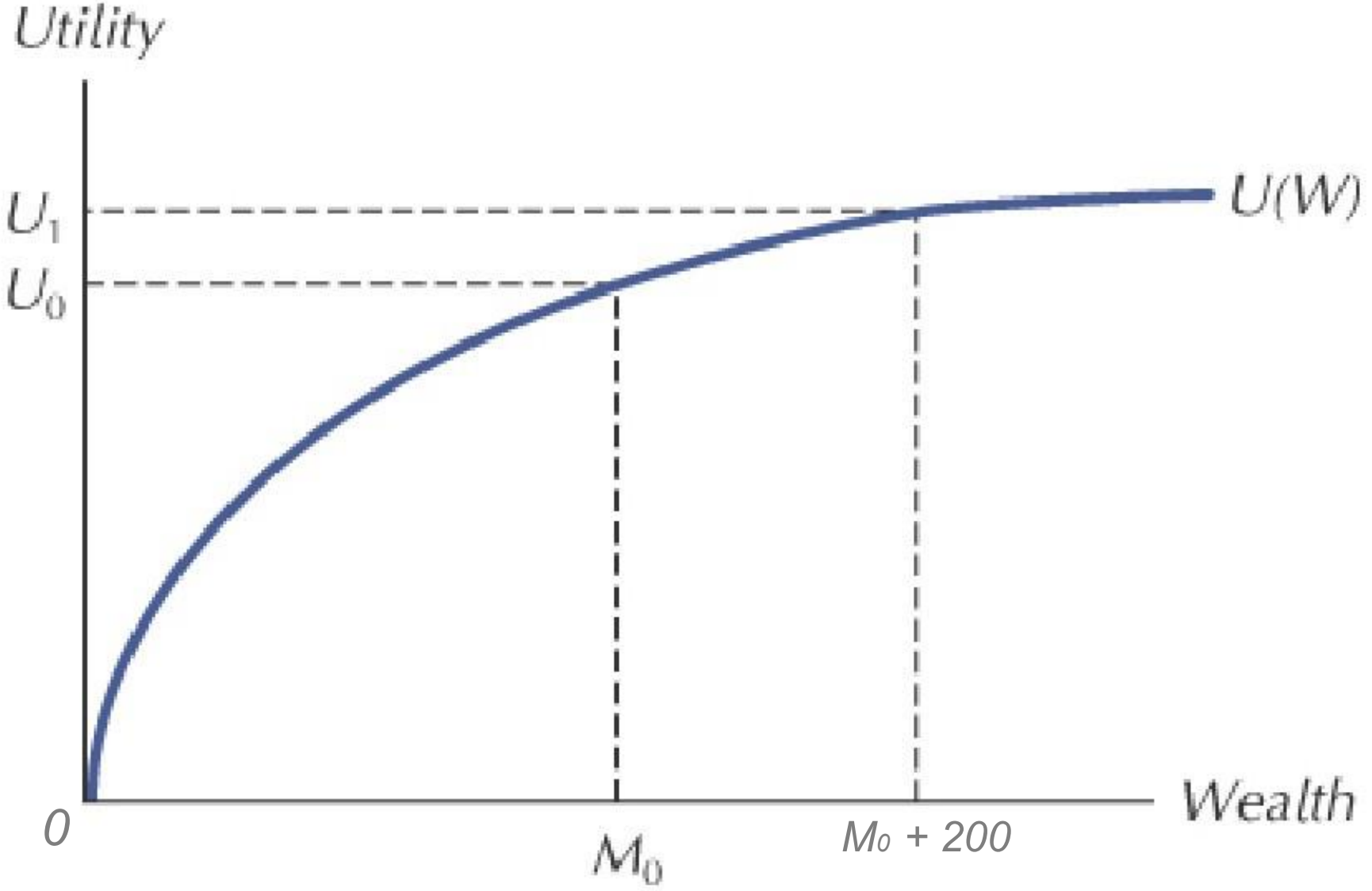
Overall a net gain?

?

Most people don't think so

Do we consider events **separately** or **together**?
Do we weight **losses and gains** the same way?

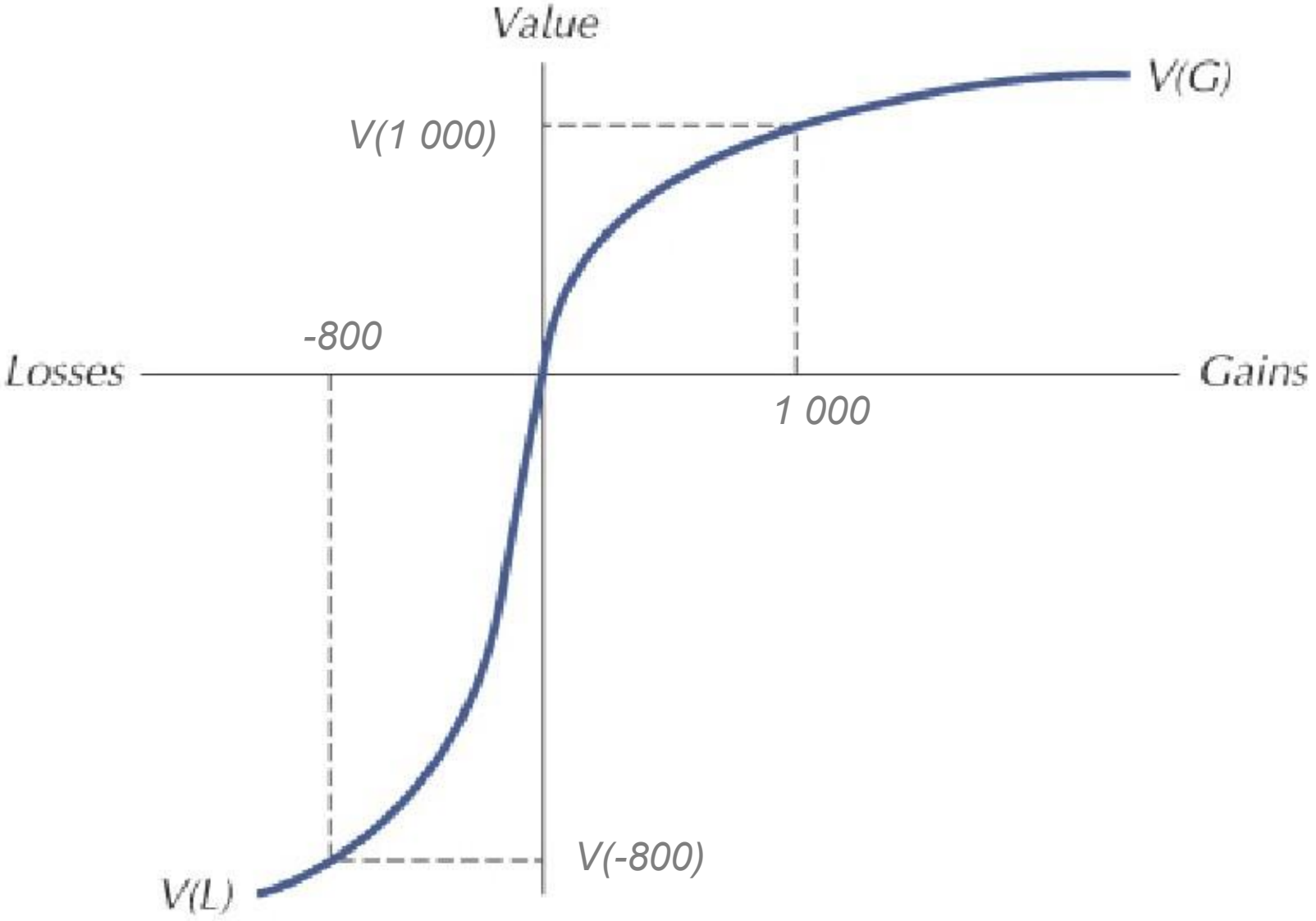
Utility of event A and B



What if we don't evaluate losses and gains with the **standard utility model**?

?

The Kahneman-Tversky Value Function



Features of the KT Value Function

- defined over changes in wealth - 0 is M_0
- **steeper in losses** than gains (**asymmetric**)
- **convex in losses** and **concave in gains**

According to this value function, do people refuse events A and B?

Should people choose according to the KT value function? When they do, are they being irrational?

?

So are we irrational?

We weight **losses more heavily**

We consider events **separately** and then add those values together to come to a decision, instead of considering the events together

-

this is **potentially irrational** - relates to **framing**.

Following example - which do you choose? Why?

Medical Insurance

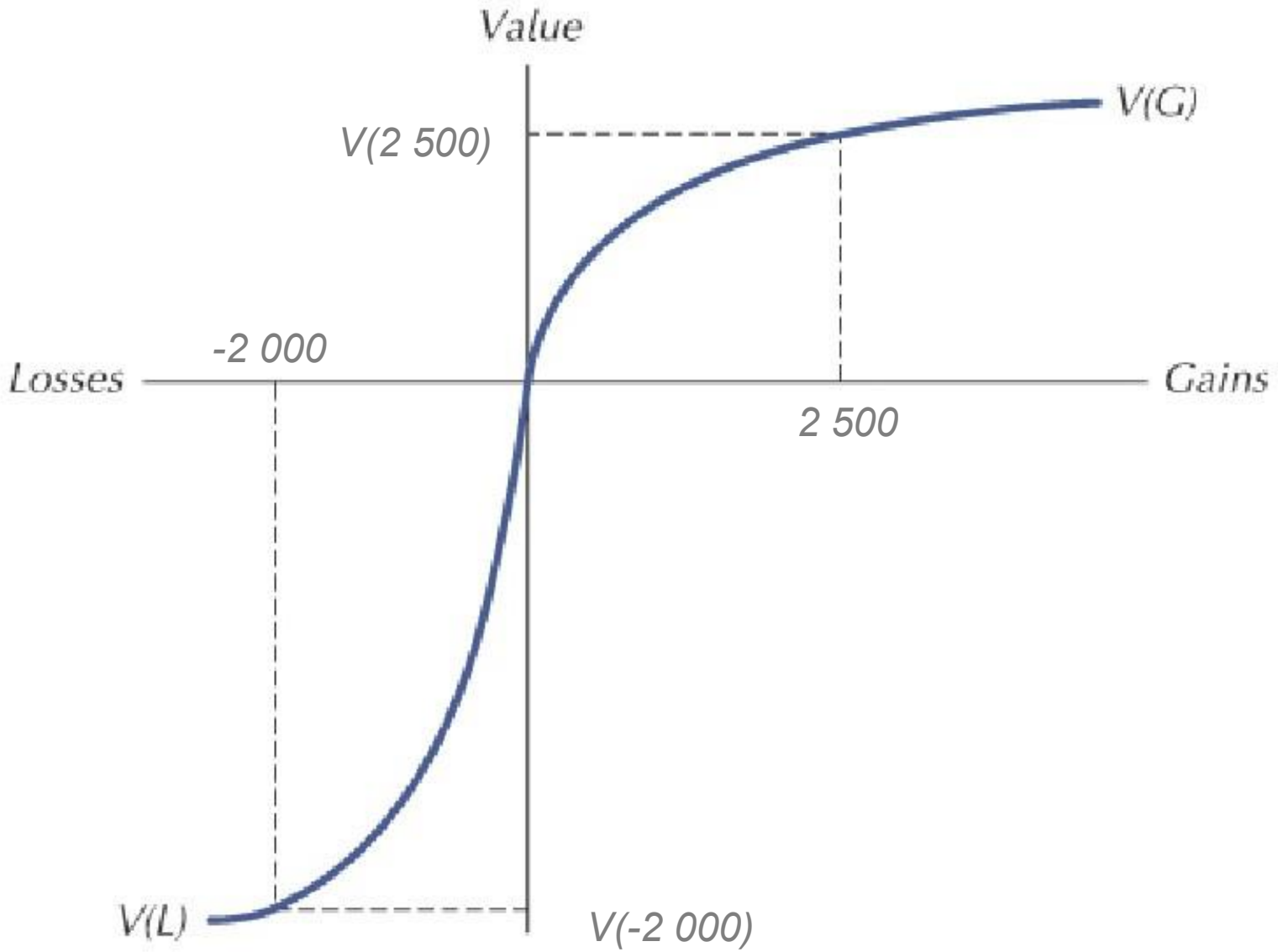
Old plan

Premium R5000 per year per family
Pays 100% of medical expenses

New plan

Premium R2500 per year, excess of R2000
Pays 100% of expenses after the excess

Figure 6.3: Rejection of a Dominant Insurance Plan



Remember...

It's not irrational to feel that losing 800 affects you more than gaining 1000,

BUT

it is irrational to not consider the combined effect as a net gain.

Sunk Costs

Sunk Costs

Rational Choice dictates that
sunk costs should be ignored in decisions.

In practice, are they?

For the shoe fetishists - your Louboutin's cost R2000, but they don't fit - do you wear them?

You paid R70 per ticket to see Breaking Dawn II - you go in, and it sucks - do you walk out?

Under **rational choice**, whether we bought, or were gifted the shoes, should not impact the decision to toss them in the bin.

In practice

?

Richard Thaler says it does.

Bottom Line:

Only future costs **should** matter in decision making.

Out of Pocket vs Opportunity Costs

Why do we want to play on the indoor courts on a nice day?

playing on the outdoor courts = **+ gain**,
paying for the indoor courts= **- loss**,

Which do we weigh more heavily?
(remember the shape of the loss function)

+ Foregone gains (opportunity costs)
vs
- losses (out of pocket expenses).

Axel Bührmann on flickr

If you paid R1050 for a seat to a soccer world cup, and you could sell the seat for R7000, would you go to the game or not

?

Rational Choice says you don't go.

In practice, our weighting:
out of pocket expense > **opportunity cost of going**

many people still did go to the games.

Page 205 wine example
Ignore it - it is very badly explained

Lecture 5

Adaptation Prediction
Rice vs potatoes
Phone vs learning the piano
Frames of reference - comparisons with ourselves/others
Choice under uncertainty

Affective Forecasting Errors

Should we have rice or potatoes with dinner?

Should you do ECO2003F or a 2nd year Accounts course?

?

What do we need to know to be able to choose? Could you have **foreseen** how each choice would play out?

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Affective Forecasting Errors

Do **experiences**, and our enjoyment of them, change over time?

Can we predict how they will change?

experiential purchases—those made with the primary intention of acquiring a life experience—made them happier than **material** purchases.

Does our enjoyment change the same way for our skydiving experiences vs our new phone

?

What if we overstated the attractiveness of all options by a factor of three?

When will distortions result?

Adaptation is **highly variable** across categories.

We will tend to **invest too heavily** in activities with **high initial attractiveness** which then declines steeply, and not enough in other activities (whose attractiveness either declines much less steeply, or increases with time).

How much should we save or consume?

?

We need a **frame of reference:**

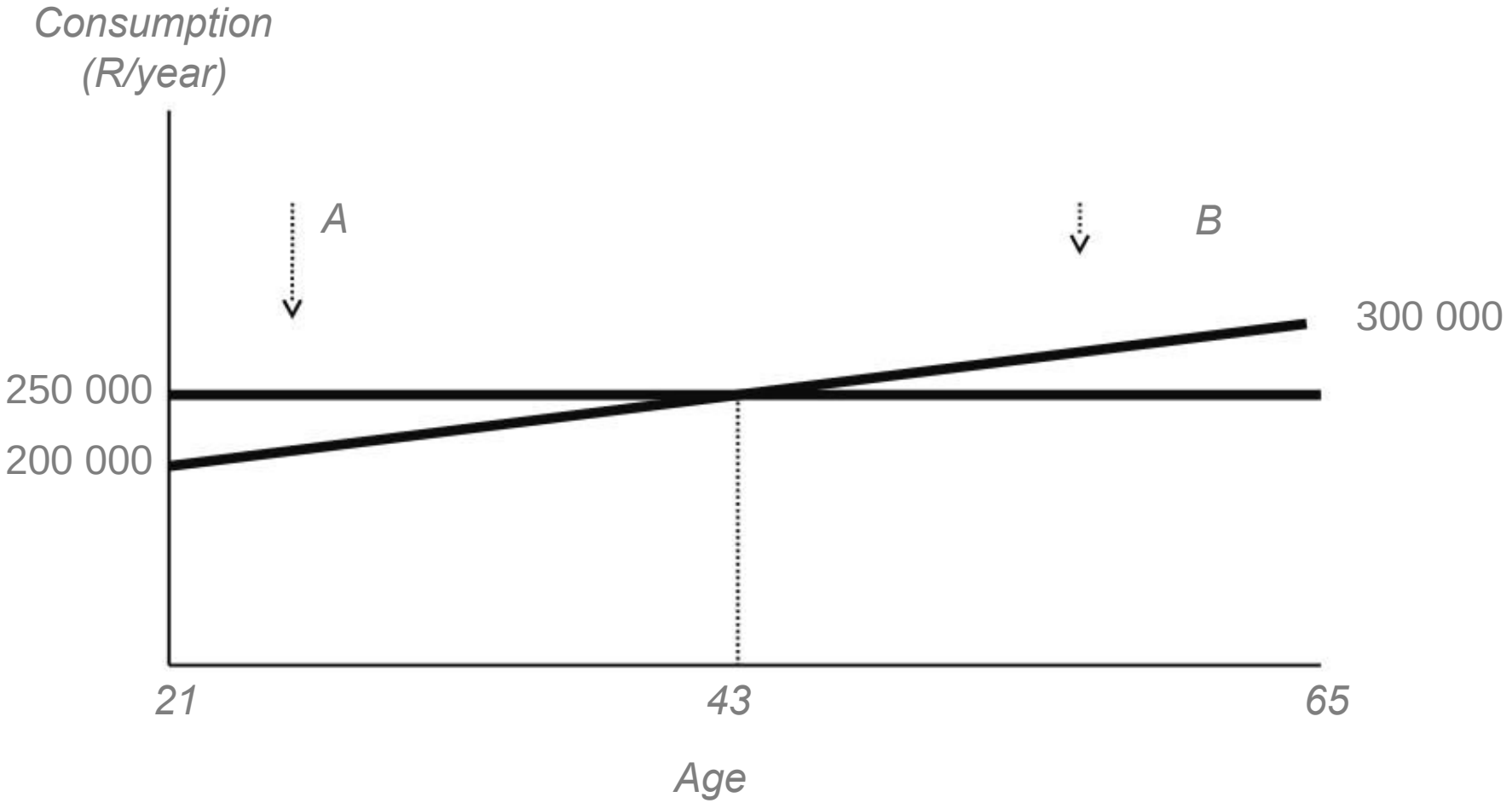
We tend to compare our consumption to:

Ourselves previously

&

Others currently.

Figure 6.4: Static and Rising Consumption Profiles



Choice Under Uncertainty

Von Neuman-Morgenstern expected utility model

Good guidance for how to choose between alternatives

Do people actually choose like that?

No. Kahneman and Tversky show people choose differently to the model very often.

Problem 1: Which do you pick?

A: a sure gain of R2400
OR

B: 25% chance of getting R10000,
and 75% chance of getting R0.

Who chooses A? What is B's expected value?

Why do people pick A?

M - initial wealth in rand

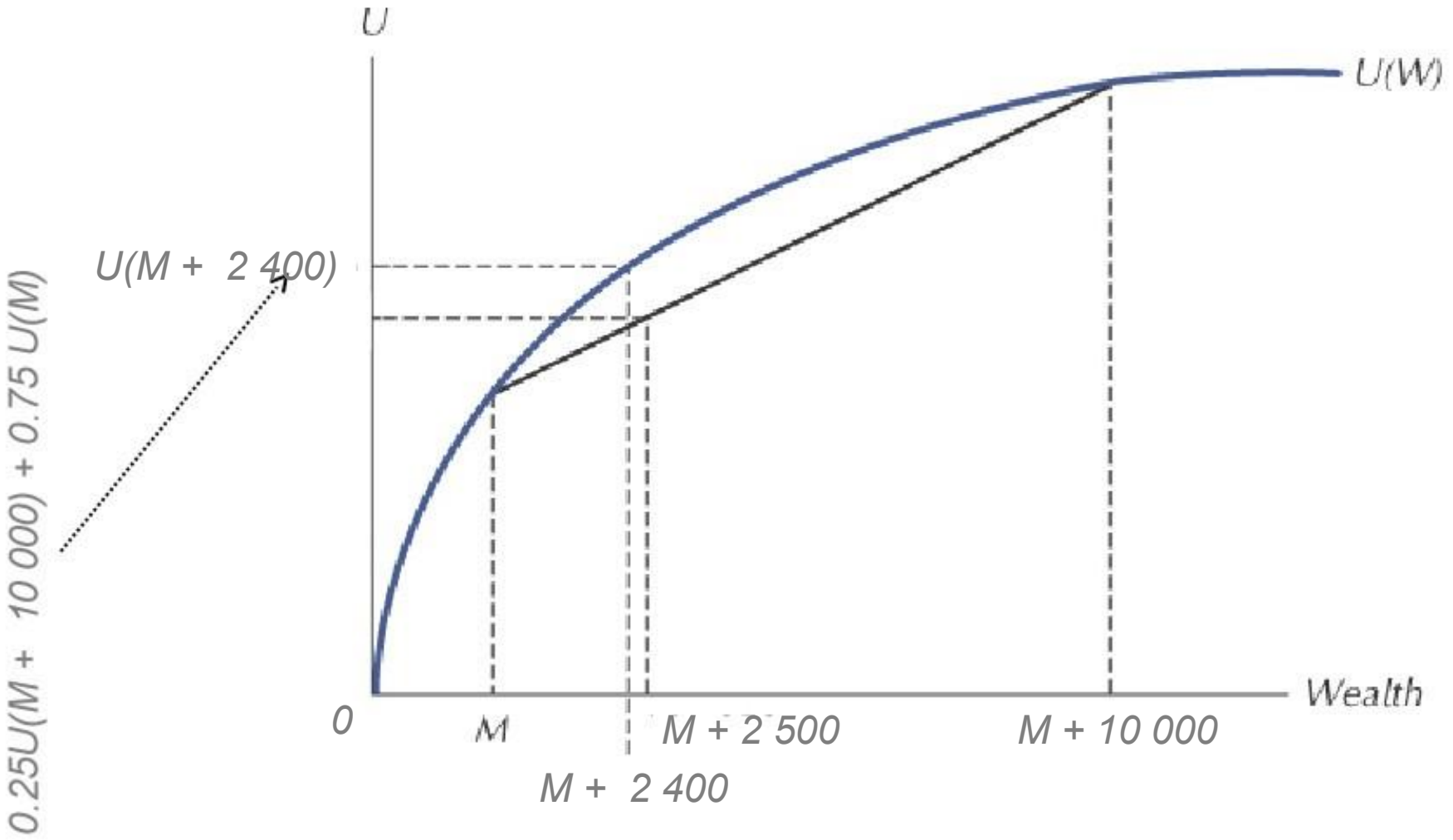
Sure Utility of A =
U(M + R2400)

Expected Utility of B =
0.25*U (M + R10000) + 0.75*U(M)

Which is more attractive?

It depends on the **shape of the U curve** -
if very concave, Exp U (B) < U (A)

Figure 6.5: A Risk-Averse Person Will Usually Prefer a Sure Gain to a Lottery with Slightly Higher Expected Value



Problem 2: Which do you pick?

C: a sure loss of R7500

OR

D: 75% chance of losing R10000,
and 25% chance of losing R0.

What is D's expected value?
Who chooses C?

Why?

?

Problem 3: Which do you pick?

E: a 25% chance of gaining R2400 and 75% chance of losing R7600

OR

F: 25% chance of getting R2500 And 75% chance of losing R7500

Which one do you choose?

E = A + D

F = B + C

Can we explain these results at all?

Let's go back and use the **value function** to do so.

Okay, so we can explain the previous choices. Was it because they were complicated that people make mistakes?

Even the simplest decisions can be impacted by framing.

There is a dread disease

If we do nothing, 600 people die

A - will save 200 lives with certainty
B - will save 600 lives with probability 1/3 and none with probability 2/3

C - 400 people will die with certainty
D - 1/3 chance no-one dies, 2/3 chance all 600 die

What do you choose? Why? Should we worry? Doctors know better, surely?

Judgemental Heuristics and Biases

People make i**rrational decisions** even when they have the relevant facts

Many of the **errors** we make are **systematic**

We use **heuristics** - rules of thumb - to decide

Why?

Is this a problem?

Judgemental Heuristics and Biases

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Why?

Is this a problem?

Availability

Why do I announce an assignment extension right before lecture evaluations?

We estimate the **frequency** of an event by the ease with which we can remember examples of it

Are there more murders or suicides in SA every year?

Do mothers worry more about child abduction or kids getting run over?

Representativeness

Vs.

What is the likelihood that a shy person is a librarian?

Steve is shy. Librarians tend to be shy. Steve is therefore highly likely to be a librarian?

No.

We must consider relative frequencies

80% of librarians are shy,
20% of salespeople are shy

Salespeople outnumber librarians 9 to 1

Now is your answer different?

Take 100 people
Divide up into Librarians and Salespeople

90 will be in sales, 10 will be into books

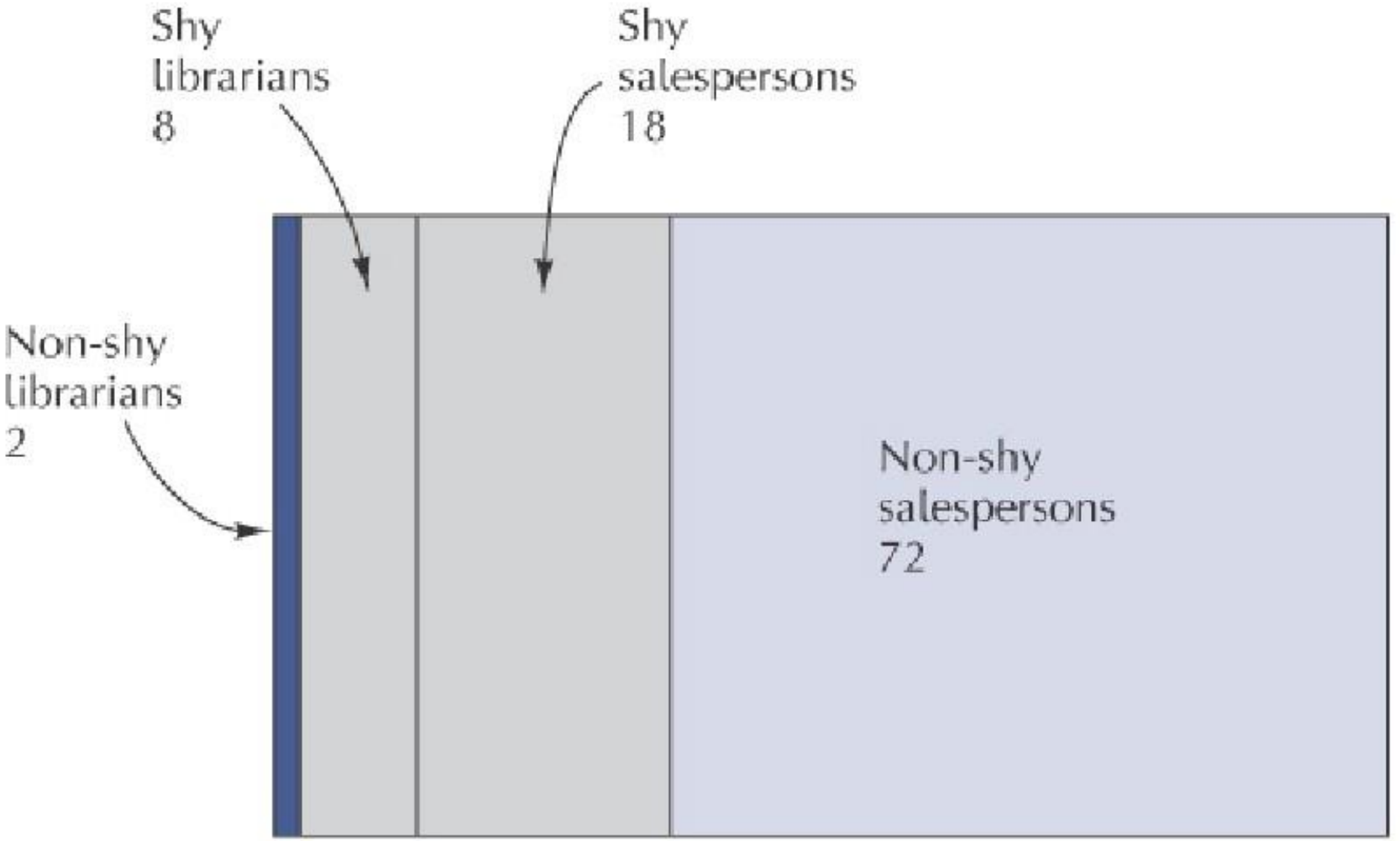
Of the 90, 20% are shy = 18 shy salesmen
Of the 10, 80% are shy = 8 shy librarians

So how many people of the 100 are shy? 26

Odds of getting a shy librarian? 8/26 ~= .33

If you meet someone shy, safer to assume they're in sales

Representativeness



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Anchoring and Adjustment

People choose an initial estimate - **anchor** - and then adjust

This process leads to **biased estimates**

The initial anchor may be **unrelated** to what we're trying to estimate, and we **adjust too little**

Can explain estimation mistakes, why businesses fail

In under 3 seconds, work out:

8*7*6*5*4*3*2*1

And

1*2*3*4*5*6*7*8?

How does anchoring and adjustment explain different answers?

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The psychophysics of perception

Can you tell the difference between a 100 watt bulb, and a 101 watt bulb?

Weber-Fechner Law: The minimally perceptive difference is roughly proportional to the original stimulus

Do you go to a different shop ten minutes away to buy a clock radio for R400 instead of R500? And a plasma tv for 8899 instead of 8999?

Rational Choice says you shouldn't answer those questions differently. Do we?

Is there a better way to say this?

Yes

Percentage changes matter for our decision making, rather than **absolute** changes

That this is the case makes us irrational, by definition

The difficulty of actually deciding

It ought to be easy to make a decision, based on the **utility** we get from the options available

In practice, it often isn't

How do I decide what to wear in the morning?

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Which car should I buy?

I decide based on speed, comfort, fuel efficiency

Choices ought to be **independent of irrelevant alternatives**

In reality, are they always **?**

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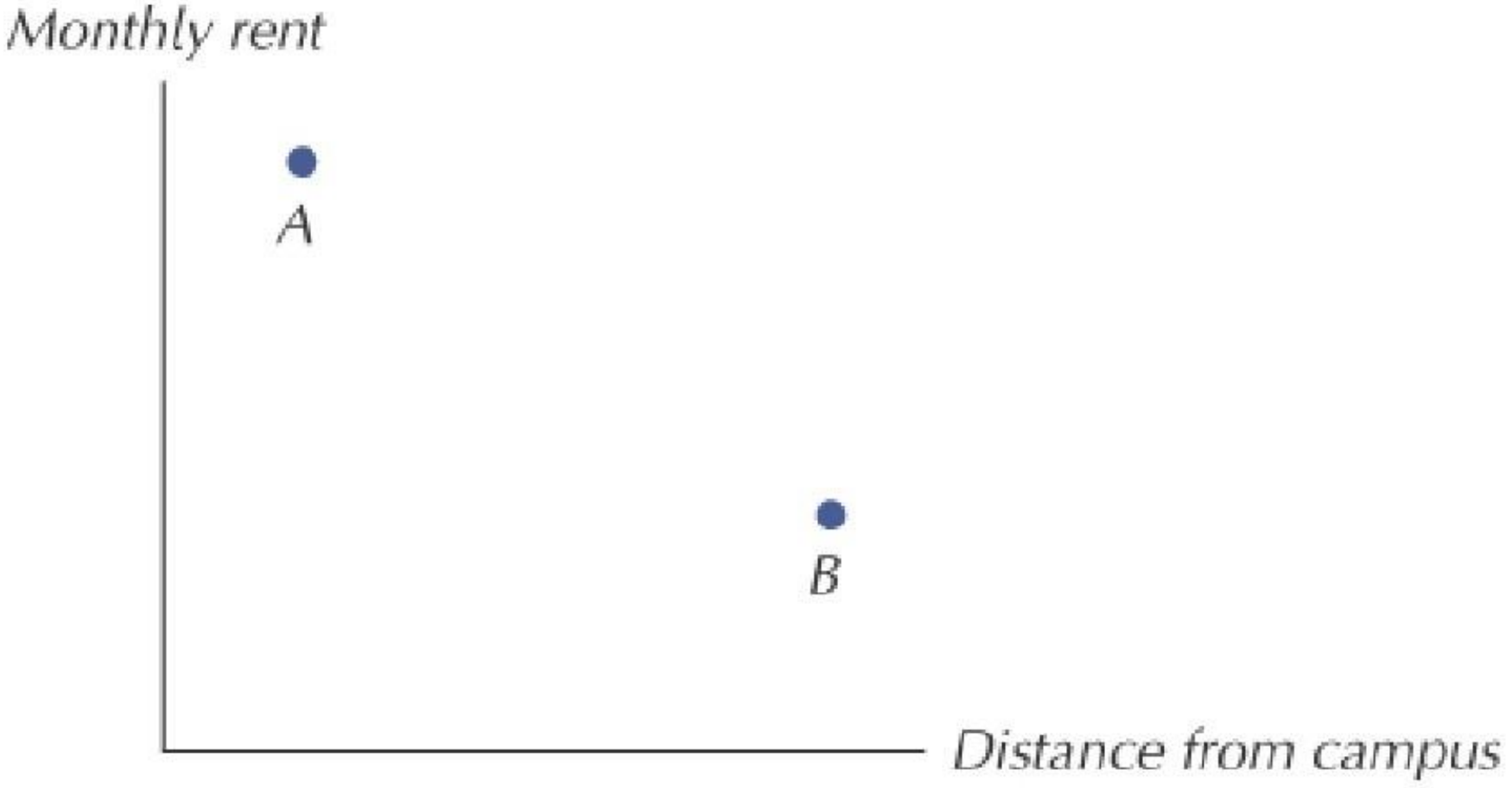
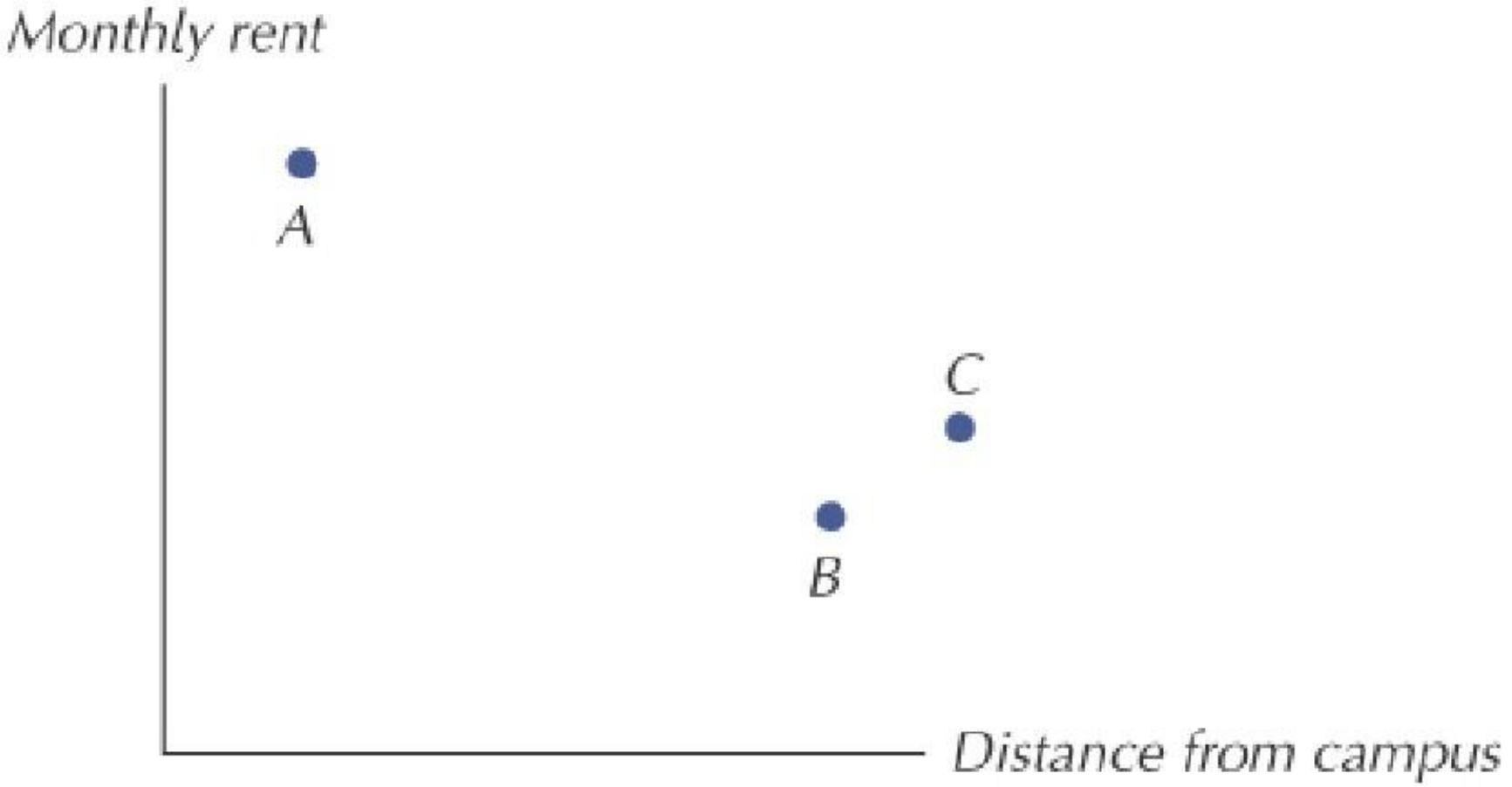
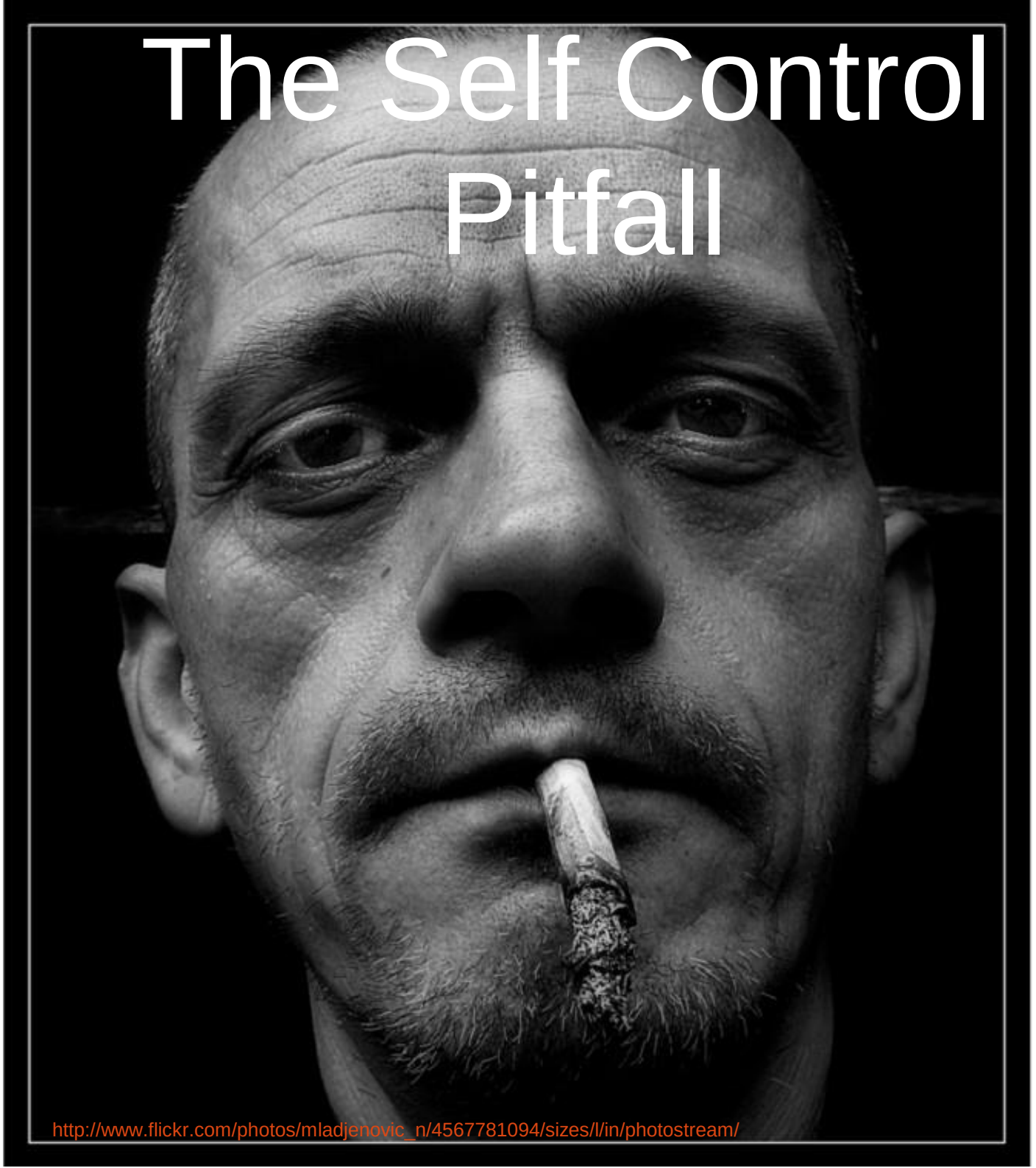


Which apartment is better?



Now can we decide?

The Self Control Pitfall



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Cigarette smokers want to quit, yet still smoke.

Why? Many have tried and failed to quit.

You need an **effective commitment device.**

E.g. Ulysses, high up snack cupboards, not taking credit card to casino,

Must devise a **rational intertemporal consumption plan**, and *implement* it

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We have to distinguish between the **positive** and **normative** roles of the rational choice model

Positive = **subjective**

Normative = **objective**

The RCM doesnt take self control problems into account, and thus **fails at prediction sometimes**

It can play a normative role of guiding people to better decisions that accord with their objectives.