7) Probability judgments

Jeg beklager sterkt for meget for håndskrift på denne eksamen!

A heuristic is a rule of thumb, common sence, or a educated guess that we use/make in order to make a „quick" descicion. When an exhaustive search is impractical, we can speed up the process by using a mental shortcut, which eases the load of cognitive search. A heuristic may be to „always use an umbrella when its raining," they can be useful but they can also cause great harm, because our search for evidence might be biased!

The representativeness heuristic is a mental shortcut which, when asking a person how probable is it that a subject is in a group, they think „how similar is the subject to the average character in that group"? This could be rational enough, BUT they stop there! They do not continue the process! Similarity of the subject to the average person in that group becomes the only factor of judgement! This is easier to explain if i use an example:

Tversky and Kaheeran did an experiment to test the representativeness heuristic (when did they not do an experiment or a study.....), where they divided their subjects into three groups.

The first group was called the „base rate group", they were not given any prior information about the task. They where given a list of „study fields"

and we asked to find how many students were in each field, so they could determine the size of each field. They rated computer science as the second smallest field, (7% of all students studied computer science), and social science/ social work as the second largest (17% of all students studied this).

The second group was named the similarity group. They were given a personality sketch about a guy named Tom.V. The description of Tom.V was something like: "he is neat and tidy, has an eye for details, is very structured, is not very creative and not social" - a description of a typical "computer nerd". This group was asked to rate how similar Tom.V was to the typical character in each of the "study fields" (her mener jeg "studiespesialisering"). They answered that Tom.V was most likely to be studying computer science, and least likely to studying social science/social work.

The third group was called the prediction group. They were given the same personality sketch as the similarity group, only they were also told that this report was written by a psychologist based on Tom's performance in high school, and that Tom was now a college student. They were given the 9 fields (I understand the experiment as if they were also given the answers from the base-rate group), and they were asked

which group Tom w would be in, in other words, how probable it was that Tom would be in either one or the other study-field-groups. The answers to this question was striking. They were exactly the same as the answers in the similarity group! They thought it was more probable that Tom w was a computer-science student, and that it was less likely that he was a social science/social work student? They did not at all consider the fact that the base rates showed that he was more likely to be studying social/science social work because this was the second largest field (17% of all students)! It was actually least likely that he was a Computer science student (7% of all students). They were influenced by the representative heuristic. They only thought of how similar Tom w was to the A-typical character in the group, and did not at all think about the prior probability judgements?

Another example here is the Linda problem and the taxi-cap problem but I do not have time to explain them. The baseline here is that when we search for evidence, our search is biased (descriptive model). The normative way to deal with this kind of questions is to consider all relevant evidence, especially use the normative model of probability theory? Some prescriptive advice: use probability theory, be open minded and consider all the evidence when you make a decision!

b) The gamblers fallacy :

X has deviated from what we normally should expect
to happen, according to probability theory
X is has happened many times
X will soon come to an end.

The gambler fallacy occurs when you base your
judgements of "what ~~happens~~ will happen next" on
"what has happened earlier". If an event
has happened frequent times, even though it
goes against the rules of probability theory", you
will base your judgement of what will happen
next on what has happened earlier. Lets explain
this more by an example:

Say you toss 6 coins. Probability theory, the
normative model, says that you have a
50% chance of getting heads and a 50% chance
of getting tails. They are equally likely to
happen. But say you have tossed the 6 coins,
and you've got heads on all the tosses.
Based on the frequent earlier events, You
(when you toss the next coin), you say that
"this time, we get tails, because tails is due".
you think that because you have gotten so
many previous-heads, it is now time for tails".
If you think this way, you have committed the
gamblers fallacy. why do we think this way?
The descriptive answer is that we distort our probabilities

and, we do not consider the rules of probabilities.
This bias occurs when we *evaluate our alternatives.

*and develop our alternatives

If we had behaved like the normative model
recommends, we would have seen that the
only "rational and logical" alternative to
be developed is that "there is a 50/50 chance
of getting heads or tails on the 7nth toss,
even though we have gotten 6 heads in a row.
When we are to evaluate our alternatives, we
should make the same judgment = 50/50 chance.
But we do not do this. We might believe
that one event is due, or that an
event should happen very soon because
it has not happened for a while, and when
we think like this, we commit the gamblers
fallacy.

Prescriptive advice: Think logically and rationally,
think of the evidence before you make a choice?
It would, for example be rational to
think that: "since I have gotten 9 heads in
a row, the chance is small that I will
get another 9 heads in a row, because this
goes against the rules of probability?"

The Availability heuristic can also be described as a mental shortcut where we do not consider all our possible answers to a question. It is a way of thinking which makes us conclude: "If I can think of it, it must be important".

This is, in other words, a mental shortcut that makes us think that the first things that come to mind (the things that are most available in our brains) have a larger probability of happening: we distort probabilities based on what we have heard, seen or what we can remember? An example is: when we hear of plain-crashes in the news, we immidiatly begin to worry and we think that plain crashes are much more common than they really are. We neglect the facs that plain-crashes have a very small chance of even occuring: we might even think that plain crashes are much more frequent than car-crashes: we worry greatly of stepping foot on a plain, but do not think twice about getting into a car. We overweigh small probabilities, because they are more available in our minds, and underweigh higher probabilities because "we haven't heard that happening for a while". For instance, we neglect the fact that small children starve to death, or get shot every single day. But when we hear of a public

shooting at a school, safety precautions are put
in place at there once. Parents are afraid to
send their children to school?
Normatively, we should evaluate and judge
probabilites when we make a decision.
When we develope alternatives, and
evaluate them in accordance to evidence,
our search is (once again) biased. A rational
agent would use the normative model of
probability theory, and figure out the
true probabilities of an outcome based on
their prior rate of occorance, not based
on "what first comes to mind". Our search
has to be more opened minded, and we
cannot be so nearsighted that we get
affected by "what's on the news" instead of
an actual rate of occorance?

Kahneman and Tversky (again), did a study to
test the availability heuristic. They asked a
group of subjects: "what is more probable:
1) There are more english words that begin with
   the letter K in our vocabulary
      or
2) There are more english words that have
   K as the third letter in our vocabulary.

Subjects immidiatly started thinking of words
starting with K (kitchen, kangaroo, kettle and so forth).
It was harder for them to think about words
that had K as a third letter (ask).

Because they based their predictions of what was most probable, on how easily words came to mind. They thought that there were more words that begin with k, then there were words having k as the third letter. This, is completely wrong. There are actually three times as many words with k as the third letter, than words that start with k? I guess Kahneman and Tversky proved their point, once again: the human mind is irrational, and we base our predictions of probabilities on what "first comes to mind", rather than true probabilities

d) After writing question A, b and c, I guess you have got the point: Humans distort probabilities, as opposed to Econs who get everything right. This can be seen as a massive problem! Lets suppose a hurricane strikes your city. Because hurricains have not strikked your city for a while, or not even ever, you thought that there was a zero-probability of a hurricane actually striking your city! What were the odds? A very small probability? Since the Probability was so small, you treated it as a "zero-risk probability instead". Of course, because you thought this was (un-normatively), you had not bought insurance. The price to pay for the insurance would never be worth it, because hurricains don't strike where i live" - you think. But the hurricane did strike, and

now you don't have a house, and everything you ever had is destroyed. I bet you with you would of found the narrative-model of thinking now?

This stuff actually happens all the time. Consider hurricane catorina! Most people were not insured! Because people view risk as zero-probability risk, it is important for governments to impose regulations? Some people need to be automatically enrolled to insurance. Because they don't think rationally enough to buy it?

It is also necessary to impose regulations on insurance because of something called moral hazard. For people who are highly risk seeking, insurance can be seen as a way to take risk without having to bear the cost. For example, business owners who see that their business is going down may take a chance on luck by doing something of high risk because he knows that "if all goes bad", he will be insured.

2. Decisions under uncertainty

a+b a) Expected utility theory is a normative model which shows how you should make a choice to maximize your utility. That is the total point of normative models; ways of thinking and making choices that in the long-run will lead you to achieving your goals! The normative model is an ideal standard of thinking, and shows you a rational way of structuring your thoughts as to make the right decision?

Expected utility theory is such a model. It is used when there are different outcomes that are unsure, but the probabilities of the outcomes are known. The expected utility theory simply says that you should add utility to all the different choices and multiply this with the probability of that outcome actually happening:

$$EU = \sum P_i \times U_i.$$

It is based on the following axioms:

Order: $A = b$, $A > B$ or $B > A$

Dominance: choose the option that maximizes utility?

Transitivity ~~Transitivity~~: if $A > B$ and $B > C$, then $A > C$?

Invariance ~~Transitivity~~: Do not be affected by the way the choices are presented

Continuity. When presented with a certain outcome, and a gamble, ~~you should always choose the gamble if the chances~~ For the good outcome is high enough
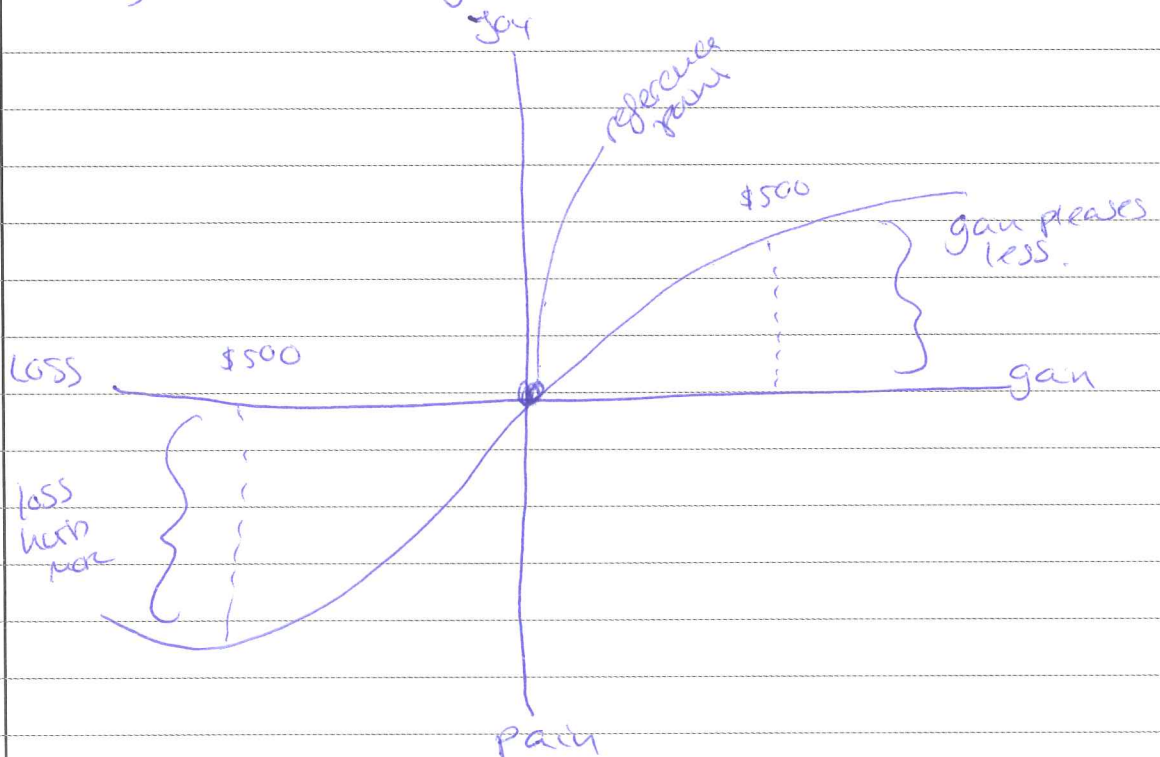
Cancellation of the sure thing principle. Consider two choices based on how they differ, not how they are alike.

Prospect theory, on the other hand is a descriptive model which shows how people actually make choices under uncertainty. It is a real word-model, which shows that people deviate from the normative model when making uncertainty-decisions! Because of the lack of time, I have to shorter this down, and just tell you the basic principles:

Prospect theory says that you view gains and losses from a subjective reference point. EU-theory says that you just view the final outcome and that you have indifferent between any reference point! Prospect theory says that losses hurts more, than the equal amount of gain gives pleasure! This can be shown using the value function:

Joy

reference point

$500

gain pleases less.

LOSS $500   gain

loss hurts more

pain

The reference point may be a status quo, your current state of mind or maybe a dream state. From that reference point, you consider anything above this as a gain and anything below this as a loss. Feks if you find $500, and then loose them right after, you will be overwhelmed with a displeasure of loss. Prospect theory says that Framing, whether you present an outcome as a loss or as a gain, has a massive effect on choices we make. This is because we are loss-averse, we are more hurt by losses than we are pleased from equivalent gains.

ew: Says i give you two gambles:

1) A ☐ win $500 with 100% chance

   B ☐ win $1000 with a 50% chance, and a 50% chance of winning nothing

2) A ☐ loose $500 with 100% certainty

   B ☐ loose $1000 with a 50% chance and loose nothing with 50% chance

If we choose 1A and 2A, we are risk averse. We do not like taking risks, and we prefer the surething of a certain gain. This is rational enough. If we choose 2A and 2B, we are risk averse. We like a good gamble, which is also

rational enough. But when most people are presented with this choice, they tend to choose 1A) and 2B)! When they have the chance of getting a sure gain, they are risk averse, they do not want to take any chances of minimizing that gain! But when they are presented with a loss, they change preferences and would do anything to minimize their loss! They are more willing to gamble than see a certain loss! This shows that loss hurts more than equivalent gains! This violates the axioms of EU-theory because they should, normatively be indifferent between how a choice is presented! (invariance principle). They should not change their preferences either due to the axiom of transitivity! They should not choose the certain thing when the chances of the good outcome is high enough, do to the principle of continuity! But people here fail to see that the expected utility from all these four choices are infact the same?
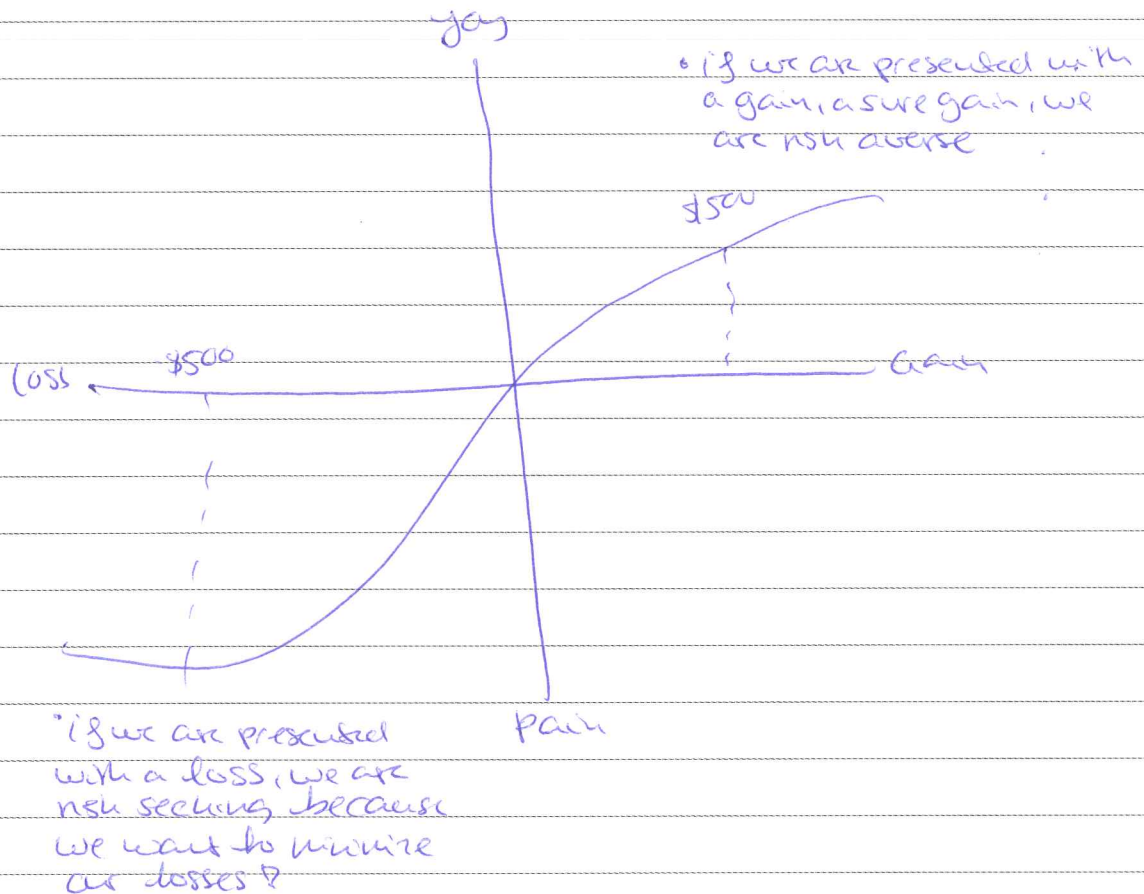
1A) $500 · 1 = $500

1B) $1000 · .45 = $500

2A) $500 · 1 = $500

2B) $1000 · .45 = $500

This shows the framing effect? If you present it as a loss instead of a gain, you will gamble to minimize your loss?

The value function i drew on the for other page,
can now be drawn again, showing the
elements of risk preference:

• "if we are presented with
a gain, a sure gain, we
are risk averse

"if we are presented
with a loss, we are
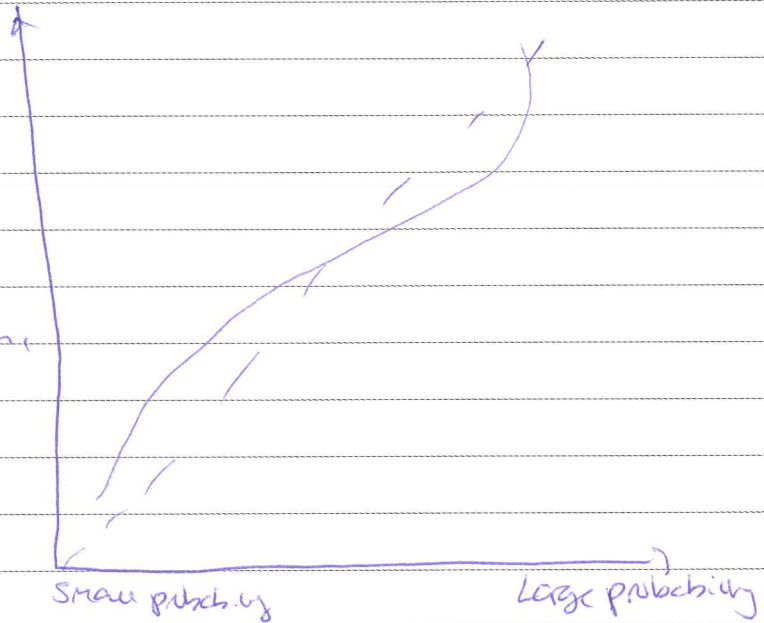risk seeking, because
we want to minimize
our losses?

The change in preference tells us how people
are loss-averse, they will do anything to
minimize their losses? The utility you get from
a gain can not outweigh the dis-utility
you get from a loss.

The other part of prospect theory is that we
distort probabilities. This can be shown by
the Pi-function.

- dotted lines =
how actors view
probability = true
probability

- full-line = human,
how they perceive
probabilities.

Small probability   Large probability

Humans underweigh high probabilities and
underweigh low probabilities! They tend to
worry more about obscure, rare ~~events which~~
~~than~~ events which have a low probability of
happening, and they worry less about probabilities
that actually they should have a good reason
to believe should happen!? (can't say more
about this because time is running out).

Prospect theory also explains why we want to
segregate gains and integrate losses.
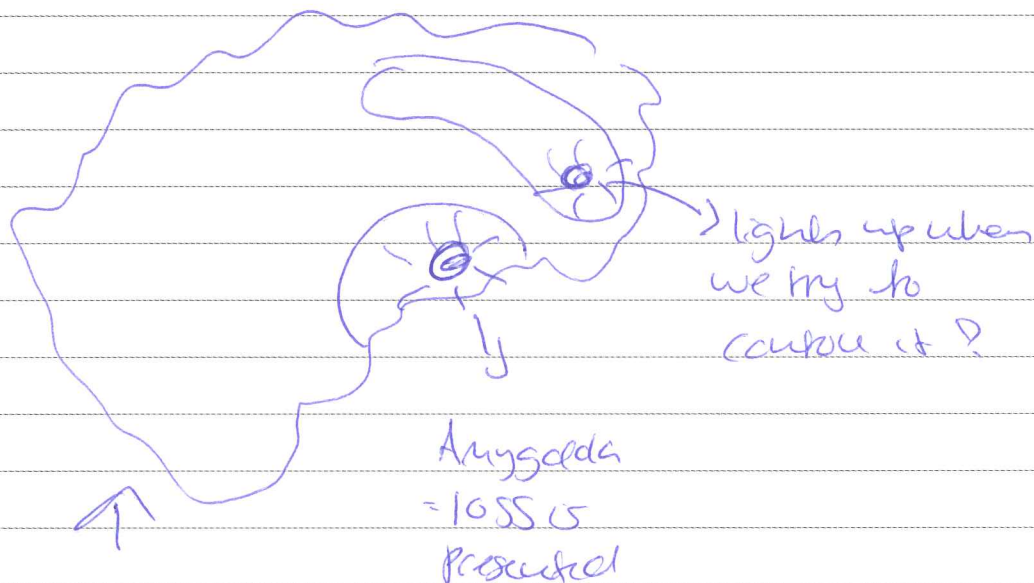If we for example are offered to ~~frede~~ prices reduced on cars!

1) Car before $8800 Kar now $7500
2) Car now $500 off.

we tend to think that the option nr 2 is
better! We keep different mental accounts

for losses and gains? we get higher utility from seeing a seperate gain, and higher utility, or less disutility by categorising a loss? example, a pricy bottle of wine is cheap to pay for if it is blended in with heaps of other courses on a restaurant bill. we dont want to see the loss seperate?

Prospect theory, and loss aversion has a lot to do with emotions? when we are presented with a loss, a spot in our brain called the Amygdala lights up & we feel more sad when we are presented with a loss? But some people show that they can control this emotion. Using FMRI scans, they can see that, for some people, another part of the brain lights up, a part on the front lobe of the brain?

→ lights up when we try to control it?

Amygdala = loss is presented

Bad Picture, but it is supposed to be a brain!

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c) Unvoluntary vs voluntary risk:

We spend alot more money reducing unvoluntary risk than we do reducing voluntary risk. For example, we do spend money to reduce the amount of smoke in the air at public places (røykeloven), but we do not ban sigarettes! Part of this has to do with risk aversion / risk seeking. Some people are risk seeking. They get a thrill from riding a motorcycle, or they get a good feeling from smoking. Their overall utility for doing all of these things is larger, then the potential disutility of not doing these things. If they want to risk their lives by smoking, because they get extra utility from the pleasure or the feeling of "being cool", then they are welcome to do so. This maximizes their personal utility. But utility theory as a normative model says = "Max utility for everyone", or "do what leads to the best consequences for everyone". Non-smokers gain disutility from sitting next to a smoker, so we can say that because the disutility of the non-smoker out-weighs the utility of the smoker, we should invest money in non-voluntary risk.
Another example, nobody feels a particular thrill of bacteria in the water they drink

so, therefore money should be spendt on
reducing that kind of risk!

2) Individual vs statistical risk:

You have most diffinately seen pictures on
the tv of "poor little abdullah who is
homeless, living on the streets in the city,
with no parents". People are most likely
to feel an attachment to this little
fellow, and they will contribute alot of
money to help him.
Another example is of a little girl, who was
stuck in a well for 2 days, and her
family recived 8 700 000 kr i støtte
(cant remember the english word).
But when people are asked to contribute
to support a local hospital who is on
the verge of collaps, and is in desprate
need of financial help, most people do
not lift a finger. why?

Descriptive theory has found that when people
help a poor child, living on the street
are alone, they feel as if they have
fixed 100% of the problem. They gain
greater satisfaction from helping one
person, because when that person is helped,
the problem is fixed! But, when
people are asked to contribute to the hospital,
who would be able to save many more lives

is given financial aid, they think that their contribution is just "a small fish in a dam", and it will only fix a small fraction of the problem!

In a study where people were told they could save 4000 lives i Rwanda, they could choose between saving 4000 people in

1) a camp with 250000 people
2) A camp with 10000 people (or 11000).

They chose option nr 2, because they felt they were fixing a larger fraction of the problem!

3) This results from the omission bias = The tendency to prefer harm by no action, over equally (~~~~~~~) harm by no action. People are afraid that their action will be the cause of something bad happening! F.eks. If a mother is given a choice between vaccinating her child from a vaccine that kills 10 out of 10 000, but the side effects of that vaccine kills 5 out of 10000, the mother will normally (but definately not normatively), decide not to give the child the vaccine, even though it reduces the risk of the child dying. The mother could not bare the thought of her child being harmed by her choice, but will prefer the child being harmed by something "natural". This has alot to do with default, but since i dont have time, i will talk about this in question

3. Decisions about the future.

a+b+c.

Sometimes we are presented with a choice that can happen now or in the future, but the consequences are realized at different points in time. Should we receive $100 now or should we wait for $150 in the future? Choices like these are called intertemporal choice. There is a conflict between the present and the future.

Baron says we are biased in the favour of our present selves. Our future selves do not have much claim on our attention. If we are given the choice between $50 now and $100 later, would it not seem rational to wait for the $100? The thing is, we don't. We get tempted. We underestimate what the arousals of the present state will be! We can describe this as the hot and cold empathy gaps. When in a hot state, you are tempted because the temptation of the prize is so close! But in the cold state, we are able to think that we should stay away from temptation. This is a reason why we can switch preferences, and choose the $50 today rather than wait for the $100 in a week.

But why do we do this? Baron says that we act as though any gain provides an

opportunity to earn interest. When we receive the $50, we act as though this money could be put in a bank can we could earn interest on it. So the more we wait, the less interest we gain.

This is where the subjective interest rate comes in. We think that a reward looses value at a constant rate over time. So if you are indifferent between $100 now and $150 later, your personal rate of interest is 50%. ... I will come back to this later.

This is called Temporal discounting. And why do we do this?

1) Risk. We are afraid that waiting for a reward that never will come. This is incorporated in the business word as shown when companies with lower credit ratings have higher interest rates, and companies with higher ratings have lower interest rates. Just as we have interest on monetary value, so do we have subjective rates of interest on rewards.

2) Impatiens. When the closer is the the reward approaches, we feel a pleasure of getting it soon. As the light in the end of the tunnel increases and turns brighter, so does the feeling of anticipation and excitement take over. When the reward

is further and further away, we feel
a displeasure of waiting. We are impatient,
we want it now.
These interest rates have something in
common with opportunity costs. If you
don't get a gain, you miss out on
the chance of investing that gain and
you will not earn interest. The interest
rate will be the opportunity cost.

There are also alot of other things to mention
there, but time is short (as can be
seen in my handwriting.... sorry)...

Samuelsen incorporated these elements
into a single parameter called the
discount rate, in this normative model
: the discounted utility model.
This model can be expressed like this:

$$U^t(c_t \cdots c_T) = \sum_{k=0}^{T-t} \left[D(k) u(c_{t+k}) \right]$$

where $D(k) = \left(\dfrac{1}{1+p} \right)^k$

$U(c_{t+k})$ represents the basic constant
utility function of an individual over time, for
the wellbeing over the time period c_{t+k}

D(k) is the discount function. This is what makes this model so good! It has a resemblance to the compound interest formula, which - if given a constant increase in interest (or decrease) ~~makemes~~ makes it possible for us the calculate the β future value of money. The model also, of course makes it possible to work backwards to find the present value of money. So by doing this with utility, we can find the present value of utility! β here is the persas personal discounting.

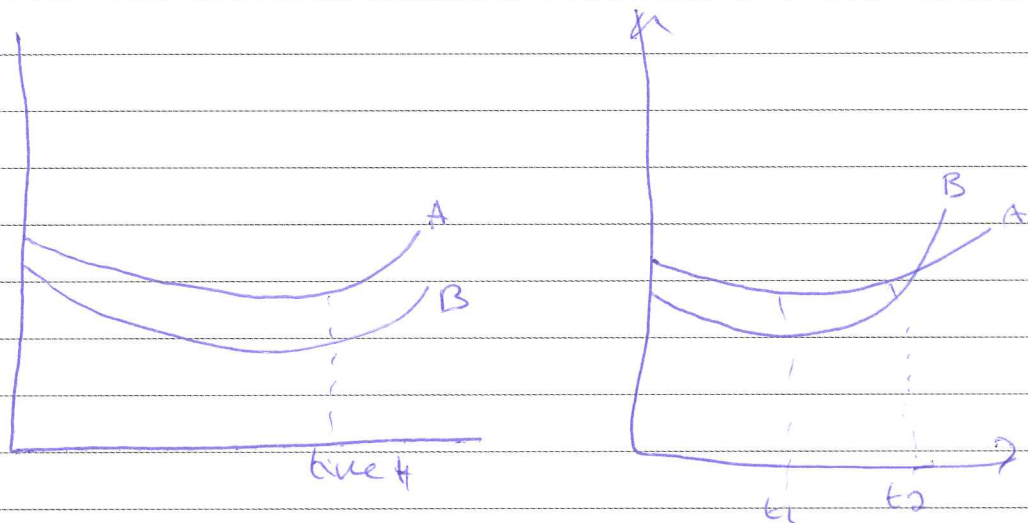Another way to explain which goes on is to show this model:

$$V = M \cdot e^{-k \cdot t}$$

The value V, of a reward with the magnitude M, decreases with the time delay t. This is called exponential discounting. k is the personal discount rate. A person with a high discount rate will feel impatient when the closeness of a reward approaches. He will discount the reward faster when the reward moves away, and he will feel more pleasure by a reward that is close! Older people often tend to have lower discount rates. They are less impatient, even though time is shorter. Weird, right?

So, these two models, but the discounted utility model shows that we can act normally and choose the best choice if we assign a utility to each alternative, discount the future utility to a present value, and then we can compare the two choices at the same level AND we can choose the best one!

Impatience, as described before, can be shown by something called hyperbolic discounting

When in a cold state, we can plan that we shall not each an extra portion of dinner and definitely stay away from the dessert, when we are going out to dinner on next friday. A is the choice of staying away. It gives us higher utility. and we see clearly that the benefits of A are higher than the benefits of B (eating).

But when in the hot state, we underestimate the arousal we get from the smell of the food and the nice atmosphere. When time 2 comes closer and closer, our subjects discount rates became higher and higher, and then we give in. We indulge, we let our selves became tempted and we dive in with our heads first?

Why do we do this?

-) Well first we are biased in favor of our present selves
-) We cannot imagine the future as something real and concrete
-) We do not realize the consequences of our behavior
-) We have a lack of self control
-) Closeness to the reward can make us shift preferences (even though this should not happen normatically because the decrease/increase in utility is supposed to be constant and not affected by the closeness or distance to the reward)
-) The nearsighted, impulsive "doer" takes over the rational, farsighted "planner" in an inner struggle within our selves.

This is btw called being dynamically inconsistent.

But how can we stop this from happening?
How can we "tame" the doer and
let the planner win? Well we could
remind ourselves of barton good reasons
for sticking to plans.

1) It is good to be a dependable person,
one that is counted on the fulfil
agreements when they are first made!
ex. if you have planned to write
your master thesis with someone, and
you suddenly decide to quit your
studies and start working instead,
your friend will be left all alone and
must do the thesis alone. The plans
you might have made together will
fall apart.

2) It builds up your momentum. If
you have spent years of learning the
ins and outs of auditing, then you
cannot expect someone to value you
as much if you suddenly switch a
line of work.

3) By sticking to plans, you will not
loose faith in yourself. If you
quit your studying after you have
finished your bacheleor degree, without
sticking to your plan of fulfilling your
master degree, how can you know that you

wan't quit your new jobs after you have agreed to take it?

Baron also has 4 ways of giving you extra self-control. We remember that when you don't have self control, you make rules for yourself which allows you to make wrong decisions. ex, when a diet, you can say "when at a party, I can eat as much cake as I want".

1) Extra physic devices: This has to do with removal of choice. When tempted to quit your studying, you can simply just eliminate that choice from your mind! When ever tempted, you must think "No! That is Not an option"?

2) Contracts. We can make contracts with other people to make sure that we stick to our plans. F.eks. you can say that you must pay your friend 10 000kr if you quit studying, and start searching for a jobs instead. This also has to do with the sunk cost phenomenon. When, or if we have paid alot of money in order to study, for example for books, tutoring, tuitions and so forth, these cost can be seen as sunk,

and we do not want them to go to waste!
Therefore, these "already spent" investments
towards our future can motivate us to
"keep on going".

3) Catur of emotion. Jehs. A person who is
afraid of being hit on can develope an
emotion of angryness to scare guys
away when they approach here.
In my example, you can think of how
much it means for your mother, that you
actually forfull your studies, and of
how much she has helped you! You
could do it for her! You can also
think of how horrible you have been to
others in stressful moments, because
you have been worried for your exams!

4) Catur of attention. You can make the
tempting choices less available by making
them harder to achieve. E th. when
Studying, you can dislocate your mac'
from the internet so that you are
not able to go online to finn.no to
check for available jobs on the
market.

I also read a funny idea about an Alarm clock
that, once it rings, it actually hides! So you
have to get out of bed and actually
find it to turn it off! Nudge!

4. Nudge

a) A nudge is a gentle push in a direction, or a manipulation of something in the environment that gets ahold of our attention and affects our behavior. The concept is developed by Richard Thaler and Harald Sunstin, who are pushing their idea of Libertarian Paternalism in their new book called «Nudge». Libertarian P. is the assumption that people are allowed to choose freely, and that they should be able to choose freely also in the future, but since they care about the outcome of your choice, they say that there is a way of manipulating your attention so that you will make the choice that is best for your own good.

Nudges do not eliminate any choices, they simply make it easier for you by laying the choice alternatives up for you in a way that guides you to making the best decision. Laying out a specific set of choices is called Choice architecture. Someone who lays out the food opportunities on a menu is a choice architecture, and someone who lays out the choices of which courses you can apply to is a choice architecture. An example of this is: Rearranging the food in a cafeteria, so that the healthy food comes first and the unhealthy food comes later. This is a way of structuring choices

that gently pushes someone in the direction of choosing the healthy food first, because these are more available, and not choosing the unhealthy food because they are further in the back.

A Nudge cannot take away any of your choices. They simple rearrange them, or make one (the best one) stand out. Nudges cannot cost something either. Giving people money to take the stairs, does not count as a Nudge, but making the stairs into a Piano so that it is fun to walk rather than take the lift, counts as a Nudge.

There are 6 principles of nudging

1 Incentives

Understand mapping

Defaut

Give feedback

Expect error

Structure choices.

4) Incentives. Make it more fun to do the right thing, or the thing that is best for you and everyone else! F.eks. In a toilet in Amsterdam, people seemed to spill a lot (men). So to reduce spillage, they painted a picture of a house fly on the toilet so that the men could aim at something when they did their business!? This is a nudge!

Turning stairs into a piano also gives incentives, because it is more motivating and fun to exercise than doing the opposite!?

Understand mappings: This has to do with understanding that when people are faced with enormous amount of information, they struggle. Thaler invented something called the RECAP model. (Record evaluate and compare different prices). This is a SHORT version of how it could work with credit cards.

1) The credit card company gives you a list of all the ways that they can charge you

2) You get another list with all the ways you have been charged.

→ These two forms are electric, so you upload them to a website, which compares those two forms and tells you that you have actually spent $1300 on

Using your credit card in mexico, and that if you are going to do the same next year, you are better off choosing between these three credit cards!?

Another example: Finanspotalen?
(Har ikke tid til å forklare, examensangsten er sur for at jeg har skrevet for mye!)

c) Default: People often choose the default. The default is an option of doing nothing, or what happens if you do nothing. Feks susskin got a letter when he cared get "5 magazines for free?" He took his pick, but 5 years after, he is still reciving these magazines! Why? Because he never gets the chance to call up and cancel the subscription! This is one kind of automatic enrollment, which firms benefit greatly from! They feed on the lazyness of people, failing to do nothing! (inssia bias)

Since people are proven to stick to the default, organ dotantion can benefit ALOT from this. Feks. if you have to "opt in", like a donor, you have to fill out a whole lot of forms and you must spend alot of time doing this. But people don't get around to doing this, even though they would gain alot more by opting in.

Instead, they could be given the choice to "opt out". If you automatically enroll someone, (like the magazine example), chances are, they will not bother with the paperwork and they will stick with the default! If the default is -) being an organ donor, and you must fill in forms to "not be an organ donor". then most people will actually stick to the default and stay organ donors! This would be highly beneficial and save so many lives! Countries who have done this have seen great positive effects of this ‼

The policy goes for everything from insurance to pension funds and savingsrates. Nobody said the default should be "zero saving?" Why not let the default be an automatic placement of money on a savings account?

If I had had the time, I would have brought up the subject "Save more Tomorrow" where Sunstein and Thaler hide the "default bias", the "we are better planners in the future" and "we are less averse" aspects into consideration by making a savings program where you could increase your saving at the same time as you get a raise.

Give feedback: People learn more from their mistakes when they are given feedback on what they have done wrong!
Ex: when painting a white red ceiling, with white paint, it is not very easy to see if you missed a "spot". But, some genious invented paint that goes on pink, but turns white? Feedback? Could also bring up the example of how banks in Norway are required to both over your financials and tell you how affected you will be by an eventual increase/decrease in interest (renta).

Expect Error: Thaler went to Paris with his wife. He rode the subway/metro system, but before he could go on to the train he had to stick a ticket into a slot. He wondered which way it should be stuck in. So he tried magnetic side down. Note to self, he though "magnetic side down" When he, 25 years later was showing some friends around Paris, he specifically told his friends "it is very important that you put the 'magnetic side down' his wife laughed at him and said "It actually doesn't matter which way you put it in, it will work either way" So Thaler realized, then only way he had

used like ticket slot right for 25 years,
was because there "was no way to
screw it up" = expect error?

Other examples, the machine beeps when you
don't take your creditcard out; or
the ~~seatbelt~~ car beeps if you forget to
put your seatbelt on.

ex: when parking at a parkinglot in
Chicago, after a concert, they actually
have people standing by the
slots (bommene) who put your card in
for you. If not, it would take
people 1/2 hour to get out of the
parking lot because there are 4 ways
of putting in your card, and chances
are => most people don't get it right on
the first try.

Similar choices: For example FINN.no:
when searching for something, let's a
house, there are a million possibilities.
One should make it easier for people
to choose correctly! Choice architects
to developed finn.no, have figured
out a smart way for making it
easier for people to choose: They
have used Kahneman and Tversky
"elimination by aspects" theory, meaning
you select an important attribute, and

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you eliminate au choices that don't
have that ~~attrib~~ Attribute?

Jeg har 5 min igjen av eksamen, og
ville egentlig gå tilbake og skrive mer
på de første spørsmålene! Jeg rakk ikke
skrive search inference rammeverket, og føler
heller ikke beskrevet noen begreper som
skan mål, mulighet, krav osv.

Men her kommer det, så du vet at jeg
kan det!

Define the problem (the reader)
Identify decision criteria (sub-goals)
kva er → Allocate weights to the criteria + derive. De mest sannsynlige
viktigst   feil.
Develop alternatives   De fleste brukte
mange søk   det ble brukt en i oppgave
på problem   Evaluate alternatives   + forsiden her vedc?
Select the best one?
velg den beste?
se alternative
til valg av
bevis   OG

Normative: Ideel standard for hvordan man
skal tenke for å nå sin mål på en
best mulig måte. I sp. 1 var den normative modellen
sannsynlighets teori
Descriptive: Hvordan vi faktisk tenker, avvik fra
den normative modellen og biaser.
Prescriptive: Hvordan vi burde tenke, råd for
hvordan tenke sin atferden være nås på en best
mulig måte?