Well-Behaved Design

Achieving transformative design through a reflective
and impact-centered design approach

It starts with a simple nudge - a small push towards a more sustainable and healthy direction. Possibly helpful, possibly well intended. Then, you might be exposed to a hidden trigger, prompting you to behave in a certain way. Still helpful?

A certified psychologist carefully choosing their words in a therapy session, to prompt you into remembering a painful experience, has your personal best as their intention. Can you say the same about a therapy app, asking the same question? Who planned, designed and coded the app, and what are their collective intentions?

What if that therapy app follows up the digital session with an unexpected reward, to subconsciously boost your dopamine levels and persuade you to keep using the app? What happens when advanced AI is introduced to the mix, learning to adapt to your behaviour, your weaknesses, your subconscious? Is it then still well-intended?

Facebook knows which brands you like, and can suggest other brands based on your data and their prediction algorithm. Amazon knows what persuasion technique works on you, and could sell this data to other companies that want to target you as a customer, by adapting their services to your implicit human behaviour. Maybe you're persuaded to buy a book based on its good reviews? Or because your close friends have bought it? Or maybe simply because it's been marked a bestseller. The list goes on.

Welcome to the world of persuasion technology. We are living in a time of powerful tech-companies with business models based on exploiting human cognitives weakness for profit. You might willingly be a part of it, or you might not even notice it happen. The most powerful persuasion technologies are often the ones you don't notice. Such as the infinity scroll on Instagram, or Youtube's suggestion algorithm. And in the middle of all of this - is design.

"
In technology, you don't have to overpower humans strength. **You just have to overpower their weaknesses.**

- Tristan Harris, former Google ethicist

Behaviour design is becoming more and more popular through terms such as priming, nudging, gamification etc. However - this booklet isn't a guide on what these techniques are or how you can use them.

This booklet is about how you can use behavioural design to combat societal problems through a reflective and transformative approach. About why you should focus on the *impact* of your design, rather than the features of your artefact. This booklet is a guide on using applied behavioural science for positive impact on society. A framework for making sure the societal impact of your design is corresponding with your values as a citizen.

"

If the designer is an individualist

he will be under minimal control

goods as the ultimate values. If he

social environment, he will design fo

loss of personal goods. If he is concer

will design a culture with an eye to w

\- B. F. Skinn

, he will design a world in which

and will accept his own personal

has been exposed to an appropriate

or the good of others, possibly with a

rned primarily with survival value, he

whether it will work.

ner, *Beyond Freedom & Dignity* (1971)

Designing for Inclusivity

Before we get into *how* we can design to combat societal problems - let's look deeper into *why*. Implicit biases such as racism, sexism, xenophobia etc., are some of many current threats to an inclusive society. And as I'm writing these words, the global civil rights movement **Black Lives Matter** is going on. What started in America quickly spread to the rest of the world, much thanks to social media as a tool for sharing content and information.

Technology have brought us opportunities for gaining awareness and empathy through stories, experiences and networks. Racism is more documented than ever before, and we, as a society, are just beginning to understand the vast extent of it. How ugly it is. How rooted in our culture it is. How it requires responsibility of all of us.

However, change requires action. Sharing content can only get us so far, systematic change requires those in power to understand their position and privilege, and be willing to share their power. Speaking of power - design is a powerful privilege. Design is also very political. The impact we create on society say something about our stance as designers, and it's our collective responsibility to make sure we're making the most out of our power to influence and drive change.

This process is not meant do devaluate such a challenging topic, but rather spark a discussion on how we as designers could contribute to societal challenges. Racism is a systematic, taught behaviour that has existed for centuries, and one design solution will simply not solve such a systematic challenge embedded in our cultural roots.

Social media is a powerful influence on collective societal values. Did the designers behind Jodel realize it could be used to share and encourage racist attitudes?
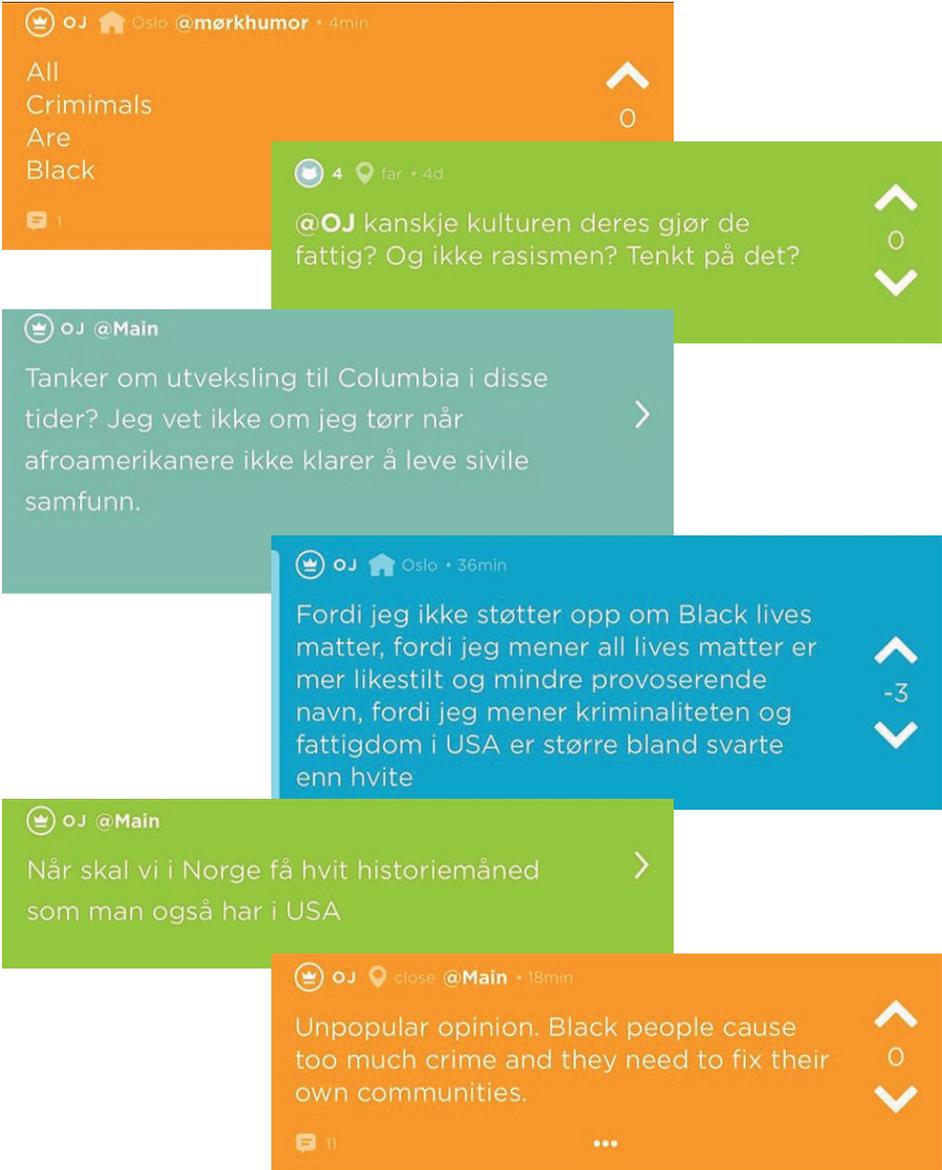
4 far · 4d

@**OJ** really? Du ser ingen negative ting med majoriteten av de mørke sin kultur? Absolutt ingenting? Er du blind?

0

OJ Oslo @**Politics** · 9h

Jeg synes nesten disse BLM-supporterne og anti-rasistene er så grove og radikale at jeg forflytter meg mer og mer mot ytre høyre.

5

💬 37

OJ @**bekjennelser**

Jeg bryr meg veldig lite om BLM greiene. Dette angår ikke meg

5 far · 3min

Enig. Det økonomiske tapet svartingene har påført USA har sikkert oversteget fortjenesten landet fikk av slavearbeidet. Svartinger i USA har det bedre enn svartinger noen andre steder i verden, likevel oppfører de som en gjeng med bortskjemte drittunger

0

10 Oslo · 17h

@**OJ** det er gått fullstendig av skaftet. Norge er IKKE et rasistisk land. Her må folk faktisk skylde på seg selv i de fleste tilfeller.

-3

OJ @**Main**

Han sotpipen som ble arrestert i USA var en gjengangskriminell. Politiet gjorde bare jobben sin

Source: *@ikke.rasist.men [instagram]*

About this booklet

The purpose of this booklet is to show the potential of a reflective, transformative and impact-centered approach, and spark a discussion about whether our traditional approach as designers is outdated and naive.

The following approach is an example of using behavioural design for an inclusive society, with the more narrow goal of **designing for active anti-racism**. The final concept is a *provocatype* (Bowles, 2018) through a storyboard, meant to spark reactions, questions and new perspectives. The final concept does not seek to end racism - nor propose a solution. The provocatype is merely to pose as an example of using behavioural design to promote an inclusive society.

The process consists of 5 steps, illustrated visually and described with tips for dynamic implementation. Not all methods are applicable to every project, but hopefully, they can serve as a source of inspiration and active reflection. After reading this booklet, the designer should have an awareness of how to:

1) explore your implicit bias, prejudice and attitudes

2) discover the underlying causes of unwanted behaviour

3) seek objectives that could lead to desired behaviour

4) analyse how the concept might influence people

5) be aware of the possible, societal impact of a concept

6) dynamically implement the objectives into a concept

Sounds good? Let's begin with the concept - and then take you through the process and methods that got us there.

Immersive VR for active anti-racism
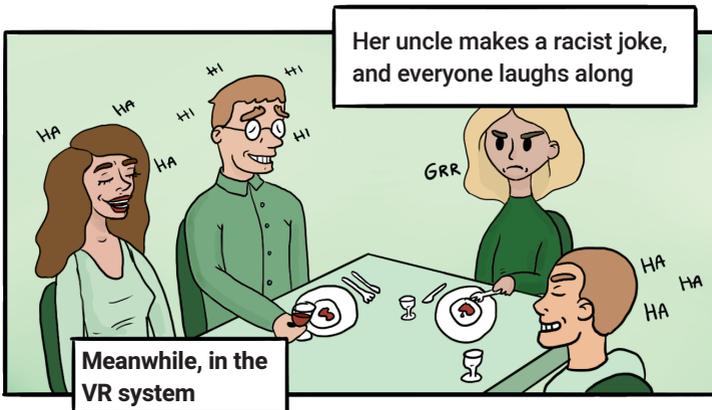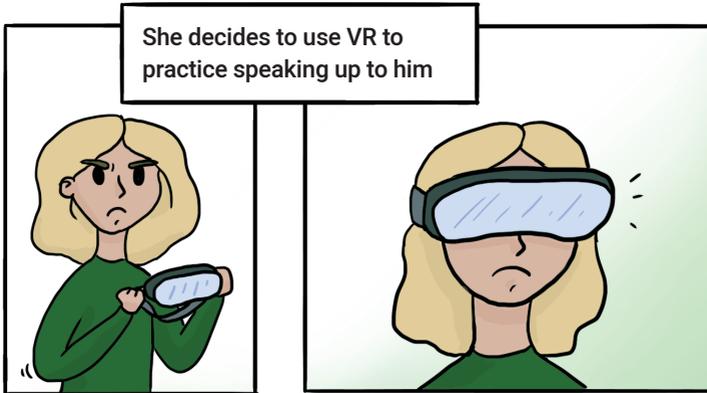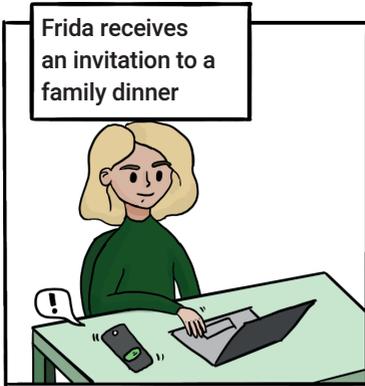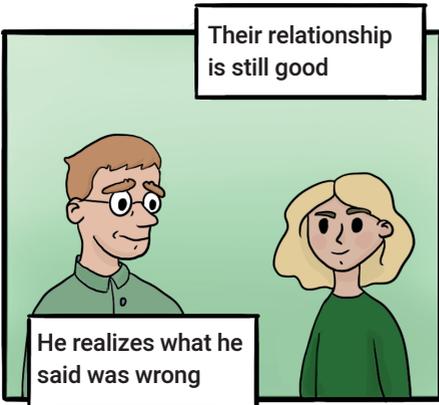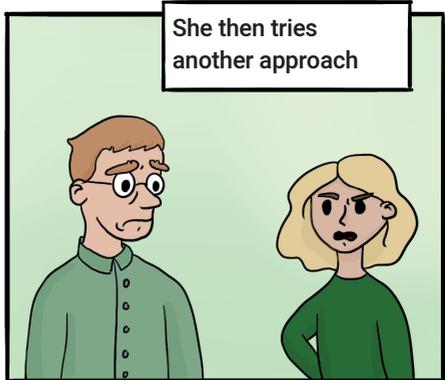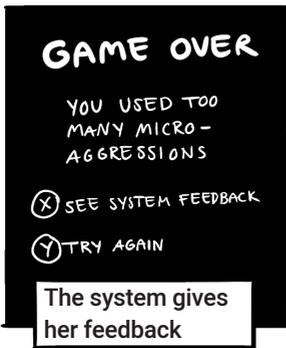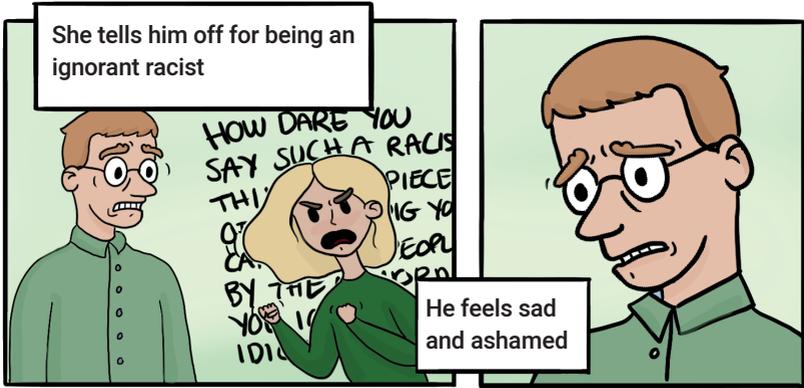
Bracketing your bias

When: Project Start

Why: Improved self-awareness and reflective approach

How: Active reflection and discussion

What: Analyse values, attitudes, bias and prejudices in your society, friend group, family and in yourself.
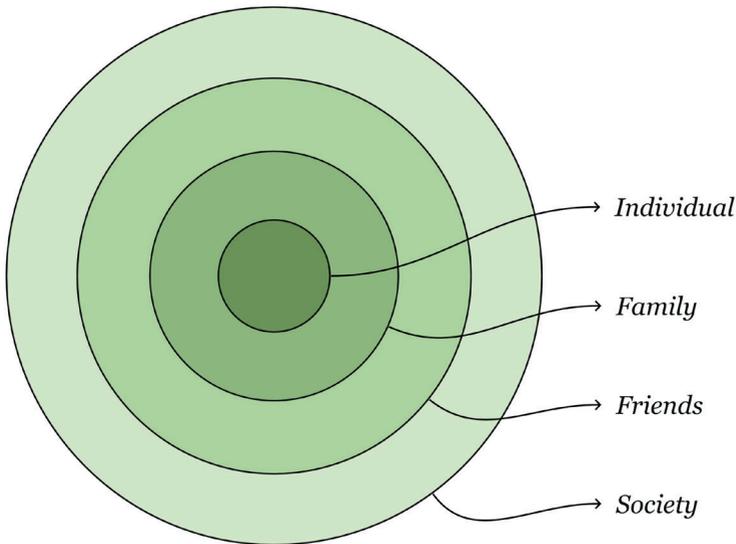
The designer should reflect on themselves by starting outwards. What society does the designer live in, and what cultural and societal values, norms and attitudes does this society hold? Then, the designer should look to their friends. What genders, nationalities and religions does the friends have? How might this diversity, or lack of, impact the designers vision of bias and prejudice?

Then, the designer should look to their family. What behaviour have you been taught, and what attitudes does your family have? Are they very politically engaged? Are they concerned about the environment? Family values might affect us more than we think. Lastly, we should look inwards, at ourselves. Check our privilege. How might our personal values affect the design process?

An important step is that this method should be done continuously throughout the process. Reflecting on your implicit bias, privilege and attitudes often requires active reflection through conversations, stories and listening to other people's experiences. Therefore, this step should be carried out as a continuous process.

Based on this evaluation, the designer should have an awareness of their personal values. Then, ask yourself this: What is a *Preferable* society to you? What values, attitudes and design approaches does this society have? As illustrated in the figure to the right, the *Preferable* future is striving further away from the *Probable* future. So how can you shift your approach from designing for a *Probable* future, to designing for a *Preferable* future?

Before designing, I reflected on my implicit bias, political stance and the cultural and societal values in the society I'm designing for. Especially while designing for active anti-racism, I reflected on my privilege as a white Norwegian, and my implicit inability to understand the full spectrum of challenges regarding racism.

Then I reflected on the term *Preferable* society. *Preferable* to whom? To me, it would be a sustainable society rooted in inclusivity, trust and accept. I became aware how my previous design approaches often were targeting other values - such as productivity and individual optimalization. Realizing this made me understand the possible impact of my previous approaches, and how an impact-centered approach could help me design for an inclusive future.
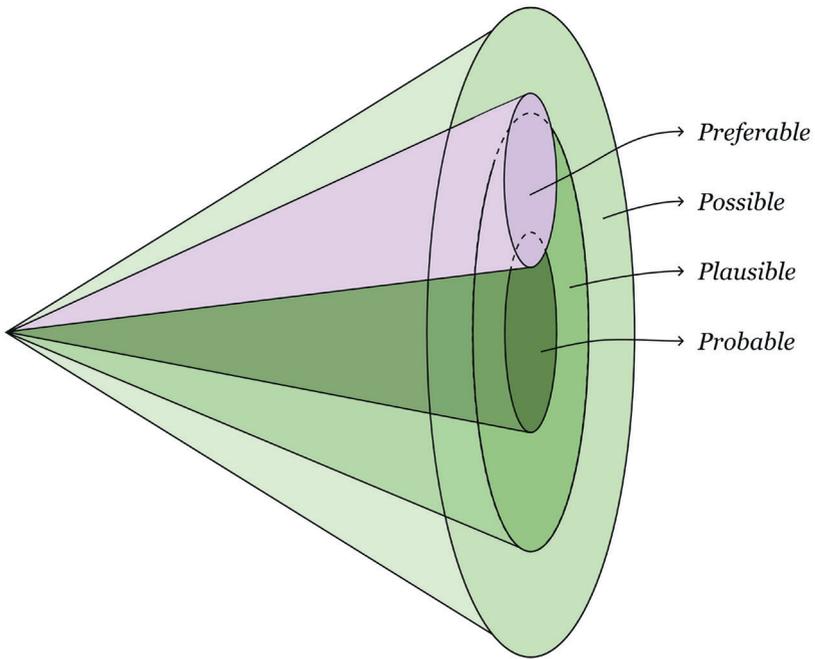
A Futures Cone (Bowles, 2018) illustrating how the future consists of several possibilites. However, as more time passes, the Preferable future strives further away from the Probable.

Understanding behaviour

When: Synthesis Phase

Why: Better overview and focus on the right problems

How: Gather an understanding of the underlying causes through interviews, focus groups etc., and analyse them for root causes.

What: Breaking down the unwanted behaviour into root causes
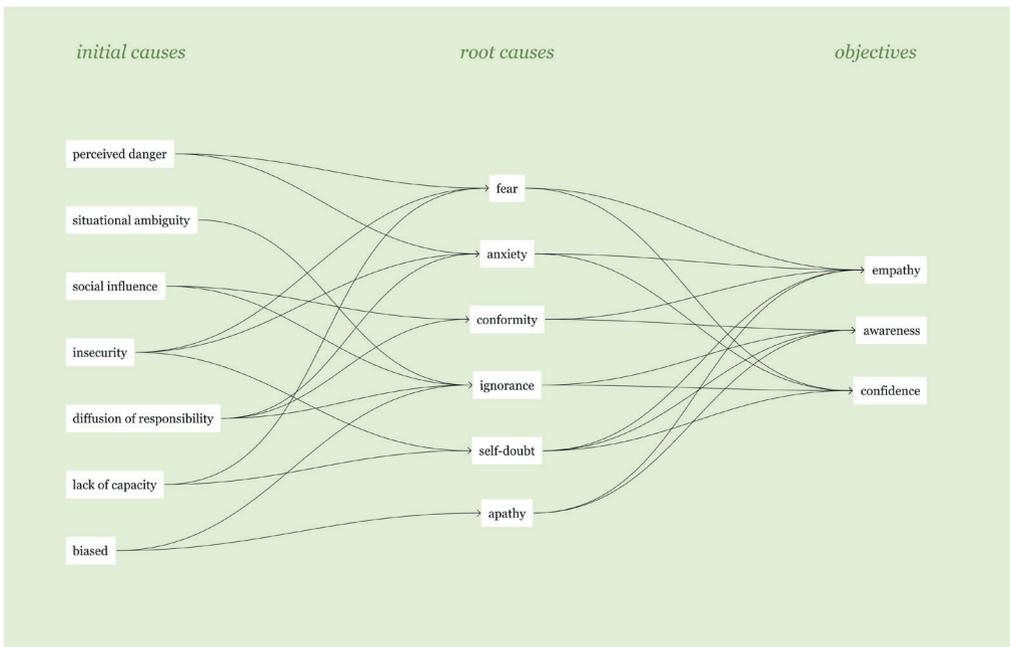
The designer should analyse the root causes of unwanted behaviour to get to the underlying challenges. These are easier to assess and comprehend, and helps the designer stay on the right path. Then, the designer should explore what *behavioural objectives* could influence these challenges. The root cause of *apathy* can be influenced by *empathy*, and so on.

In this example - I discovered through literature research that the bystander effect often is caused by the elements marked as *initial causes*. As an example, asking what causes *social influence* lead to *conformity* and *ignorance*. Through additional research, I discovered that several challenges could be overcome by certain objectives. In the case of *fear* and *anxiety*, these could be helped through *empathy*, which in return could influence several other aspects of the unwanted behaviour.

Through this breakdown and analysis, I discovered that increasing empathy, awareness and confidence had to be the root components of the concept.

Method 3:

Influencing Behaviour

When: Concept Development Phase

Why: Overview of how behaviour can be influenced by objectives

How: Explore objectives in relation to the behavioural components

What: Analysing expected behavioural impact of objectives

	before		*during*		
A	passive bystander	— witnesses public discrimination →	fails to intervene	— victim gets bullied ⟶	feels bad ab
B	active upstander	– witnesses public discrimination ⟶	intervenes	— helps victim ⟶	feel good al
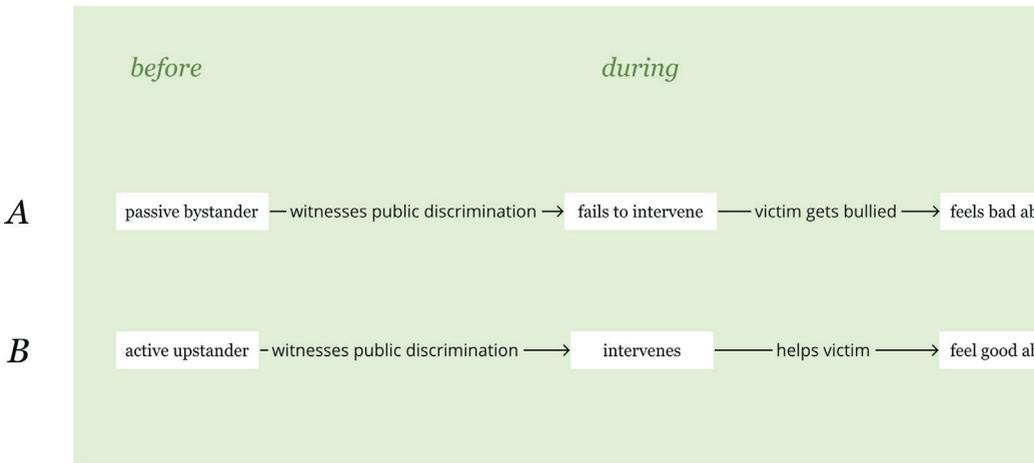
All behaviour begins by a prompt, a *trigger*. In the case of the bystander effect - it may begin by hearing or seeing discrimination, violence, abuse or similar. The behaviour that then follows, is based on the person's capabilities, opportunities and motivation. These components are based on the COM-B Model for behaviour change (Michie et al., 2011), one of the most popular models used by psychologists today.

Depending on the behaviour, the person then experiences a positive or negative *outcome*. A person experiencing the bystander effect as they fail to intervene might experience a negative outcome such as shame, anxiety and self-doubt, which might lead to the person behaving differently the next time.

I began easy - by visualizing behaviour A as the current, problematic behaviour, and behaviour B as the wanted, inclusive behaviour. This visualization can be seen in the graph to the left. However, let's use this to delve deeper and see how we can bridge the gap between behaviour A

after

out themselves

out themselves

First, I dissolved the COM-B Model (Michiet et al., 2011) into a list of tangible objectives, found to the right. Then I analysed the identified objectives *empathy*, *awareness* and *confidence* in relation to each of the behavioural components to find a match. As an example; empathy could influence emotional motivation, awareness could influence reflective motivation and confidence could influence psychological capability.
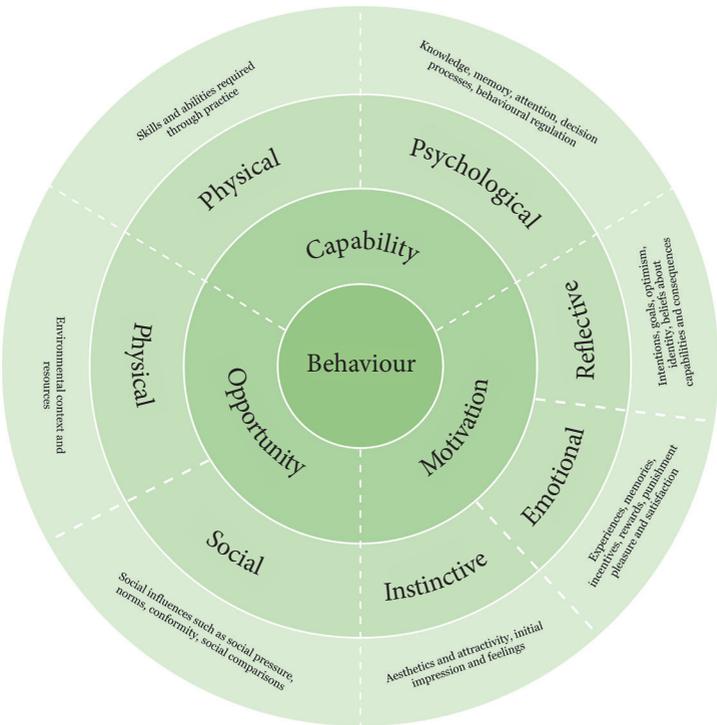
Capability

Psychological - knowledge, memory, attention, decision

processes

Physical - Skills and abilities required through practice

Opportunity

Social - Social influences such as social pressure, norms,

conformity and social comparisions

Physical - Environmental context and resources

Motivation

Instinctive - Aesthetics and attractivity, initial

impressions and feelings

Emotional - Experiences, memories, incentives, rewards,

punishment, pleasure and satisfaction

Reflective - Intentions, goals, optimism, identity, beliefs

about own capabilities and consequences

This visual analysis illustrates the expected efficiency and outcome of using these behavioural objectives. This made it easier to see that empathy, awareness and explicit training was likely to have a positive effect.
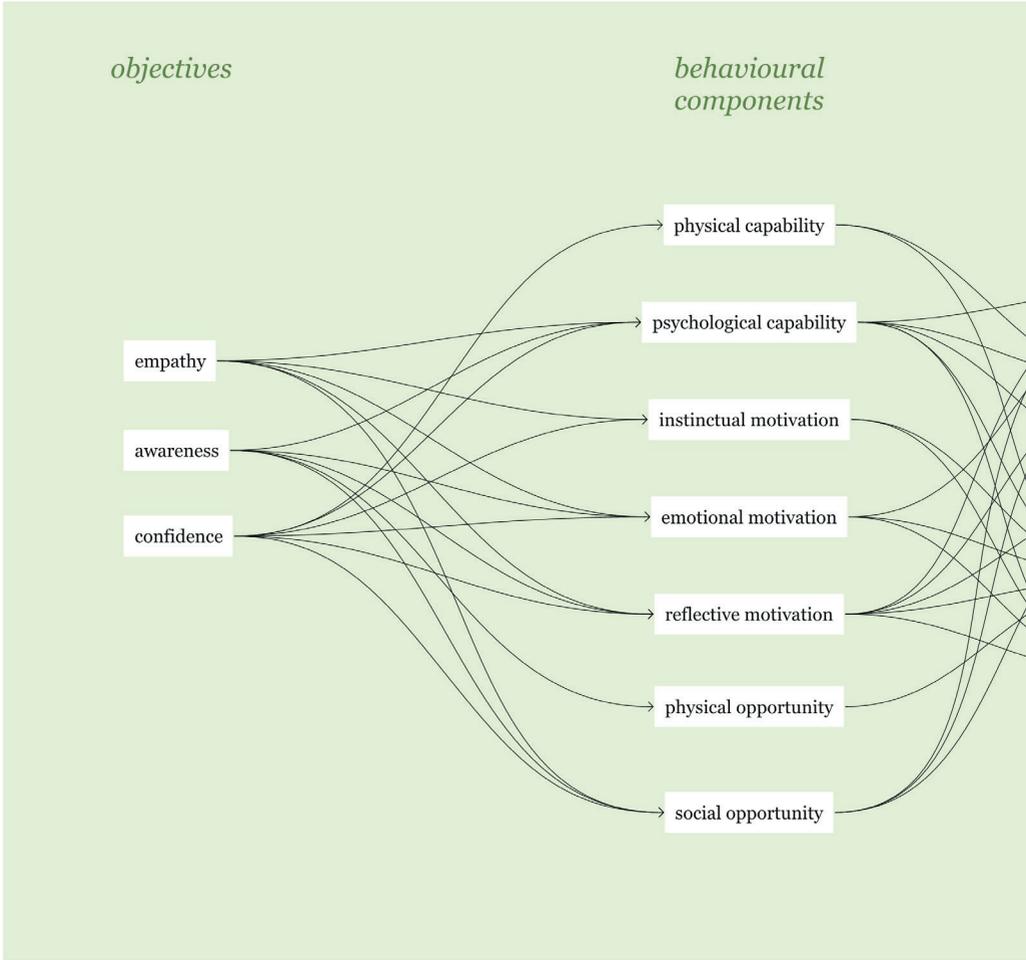
result

situational awareness

confidence in judgement

confidence in values

confidence in capabilities

sympathizing with victim

Based on the results of the previous page, I could tell that the objectives likely would help the person overcome their bystander effect and effectively intervene.

Behaviour → **Outcome**

behaviour based on awareness
about bystander effect, empathy
and confidence in own ability and
judgement of situation

likely to intervene in a
meaningful way
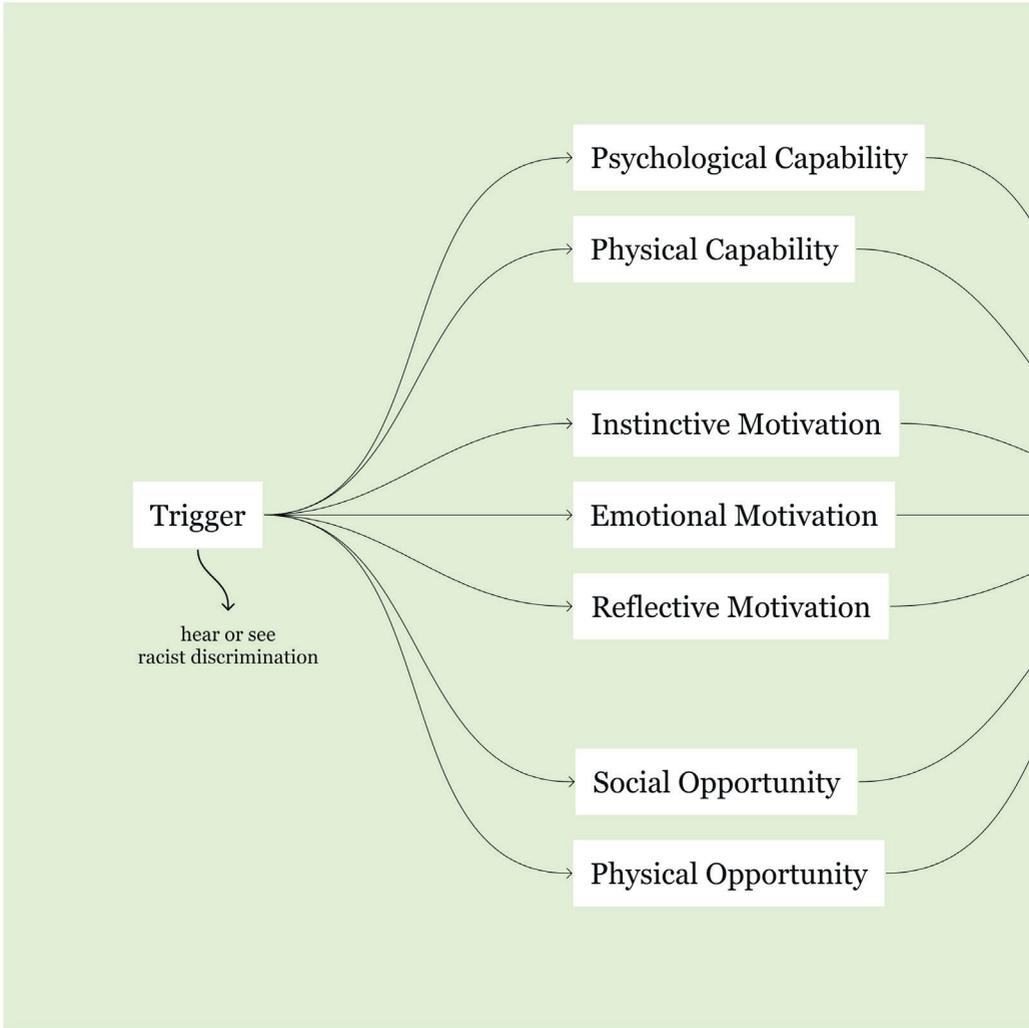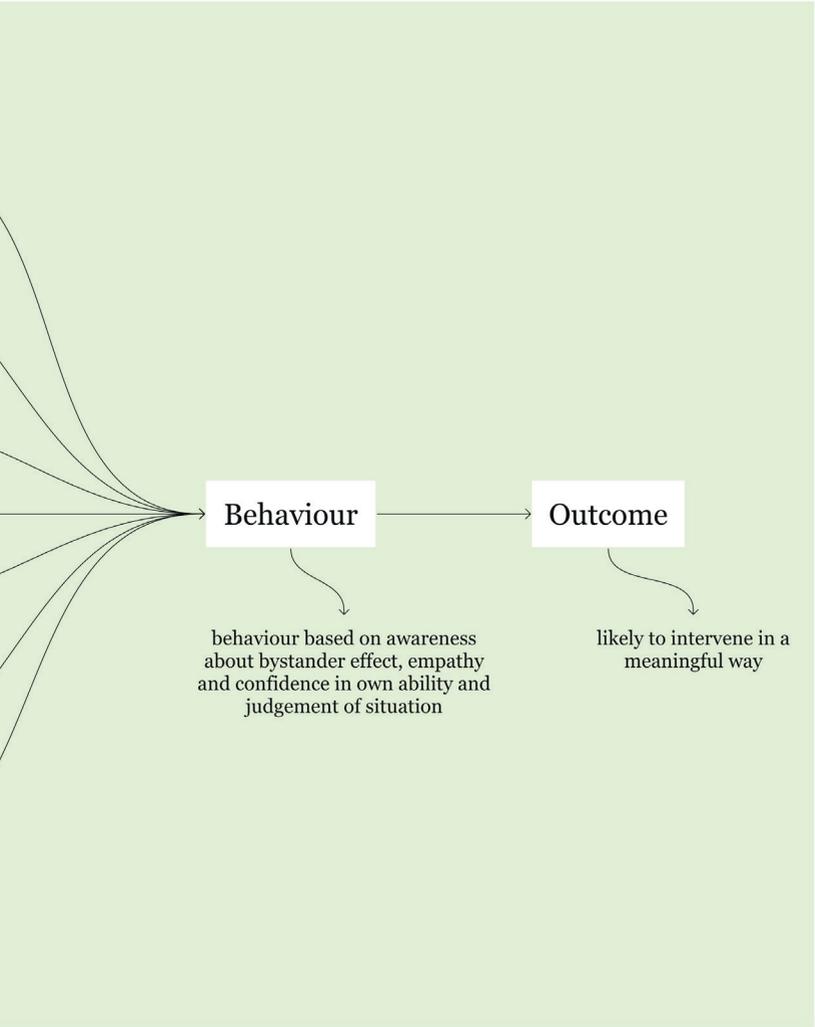
Immersive VR for active anti-racism

In designing for active anti-racism, I discovered that the *bystander effect,* a cognitive bias in which people fail to intervene, is a common obstacle. To narrow the scope of the project, I decided to focus on using behavioural design to combat the unwanted behavioural impact of the bystander effect, i.e. identifying bystander behaviour as the **unwanted behaviour A**, and active behaviour for anti-racism as the **wanted behaviour B**.

From an external workshop on *Designing for an Inclusive Future*, I discovered how immersive technologies such as VR could be used to a) create awareness about the bystander effect, b) empathy and c) confidence through explicit training. And to make the context more relatable, I narrowed the concept further down to immersive VR for active anti-racism, as an educational tool for learning how to talk to racist family members, friends or colleagues about their racist remarks, without ruining the relationship. The process underlying this concept was centered around meaningful behaviour change.

The concept:

Introducing the *Racist family dinner*, the immersive VR experience! Real deep fakes of your very own family members! Want to tell off your old uncle for being racist, whilst maintaining your relationship? This is your chance!

Now featuring! Track the microaggressions in your voice and body language, so you'll learn how NOT to talk to racist family members - based on our highly advanced Fragility AI!

The storyboard introducing this process visualized a relatable scenario in which this concept would be helpful. In the storyboard, a girl is invited to a family dinner, and is feeling anxious about attending as her uncle casually makes racists remarks. She doesn't want to ruin their relationship by telling him off, but realizes she can use immersive VR for learning how to talk to him in an informative and non-shaming way. This way, he may become aware of his harmful behaviour, whilst their relationship is kept intact.

Behaviour Journey Map

When: Concept Development Phase

Why: Applied implementation of behaviour objectives

How: There are many ways of creating a journey map, but this variant includes the objectives as the primary outcomes.

What: A map illustrating possible consequences of the chosen technology

The designer could use a variant of the journey map focusing on behaviour and impact, to effectively integrate the objectives into the technology and concept.

As identified using the behaviour model, the objectives *awareness*, *empathy* and *confidence* are needed to combat the bystander effect. To find practical appliances of these objectives I used a journey map to see how these could fit in a visual narrative using VR.

The explicit scenario of this behaviour journey map is as visualized in the storyboard, attending a family dinner where a family member makes a racist joke or comment, a well-known experience for many Norwegian designers I talked with. However, the fear of ruining the relationship or destroying the family dynamic, often causes the listener to remain passive and silent, which later on could lead to shame, guilt and frustration.

In this futuristic concept, a user can upload deep fakes of their family member to the VR space, so the family member looks and sounds the same. Of course, this poses certain negative consequences, as discussed in the previous method, but for the scope of this example I assumed that AI-generated deep fakes are common and easily available in the future.

In this journeymap the VR experience consists of three parts. The purpose of Part 1 is to gain awareness about the bystander effect by remaining passive and paying attention to the reaction of other family members. Part 2 aims to prime the user on the consequences of lecturing someone in an aggressive way.

stages

awareness

Part 1

Part 2

touchpoints

passive listener → reflection

active speaker A

objectives

listen to what your family member is saying. pay attention to the words, tone and body language. observe how the other family members are reacting.

what did your family member say? what hidden bias and privilege does your family member have? why didn't anyone speak up?

listen to what your fam[ily] is saying, and recogniz[e] bias and privilege in yo[ur] member. lecture your f[amily] member with an aggres[sive] pay attention to their re[action,] body language.

emotions

confusion
discomfort
embarassment
frustration
shame

confusion
discomfort
embarassment
frustration
irritation
anger

In Part 3, the user is advised to use a more reflective and understanding approach, and pay attention to the change in the family member's reaction. This awareness, empathy and confidence concludes the experience.

priming → *empathy*

Part 3

reflection → active speaker B → reflection

ily member
e the hidden
ur family
amily
ssive tone.
action and

how did it feel to speak up against your own family member? how did they react? what did you achieve?

listen to what your family member is saying, and clarify their stance. listen to their perspective. ask them what they would have done if they were in the position of the [oppressed victim]. pay attention to their reaction and body language.

what was happening? how did it feel to speak up against your own family member? how did they react? what did you achieve?

*confusion
discomfort
embarassment
frustration*

Method 5:

Impact Analysis

When: Concept Development Phase

Why: Overview of the possible, negative impact of concept on society

How: Research consequences of the chosen technology, and map this out

*What*: A map illustrating possible consequences of the chosen technology
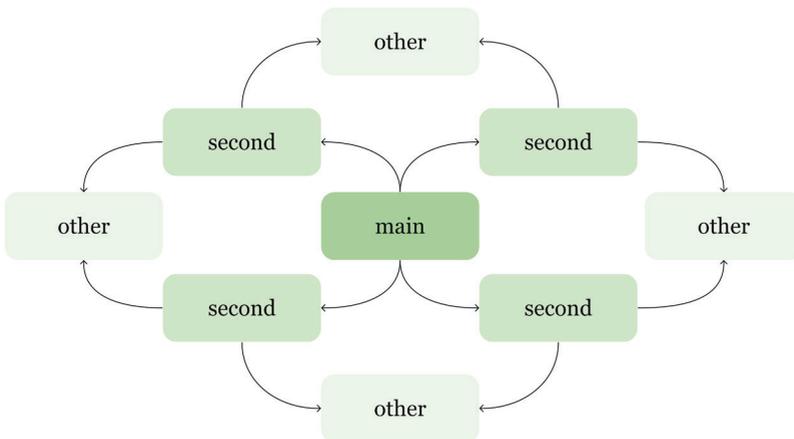
Are you solving one problem
by creating another?

When the designer has chosen a suitable technology, or is having difficulties choosing one, the designer should map out the impact of the chosen technologies. By doing this, the designer increases their awareness of how their concept might impact society, the real stakeholder of any design solution.

By placing the technology in the middle, and then mapping out the direct consequences of that technology, the designer can see the probable impact. The next addition, the consequences caused by other consequences (such as stress causing anxiety, or frustration causing anger), are less probable, but still likely outcomes.

The designer should keep doing this until they feel like they have a good overview of the possible impact. This method is often referred to as *futures wheel* (Glenn, 2020).

physical harm

nausea — eye strain

social division

perception impairment

antisocial behaviour

tech addiction

fake experiences

worse mental health ← anxiety

XR

prone to manipulation

security & privacy

information overload

vulnerability

stress

indecisiveness

misuse of personal data

possible consequences

36
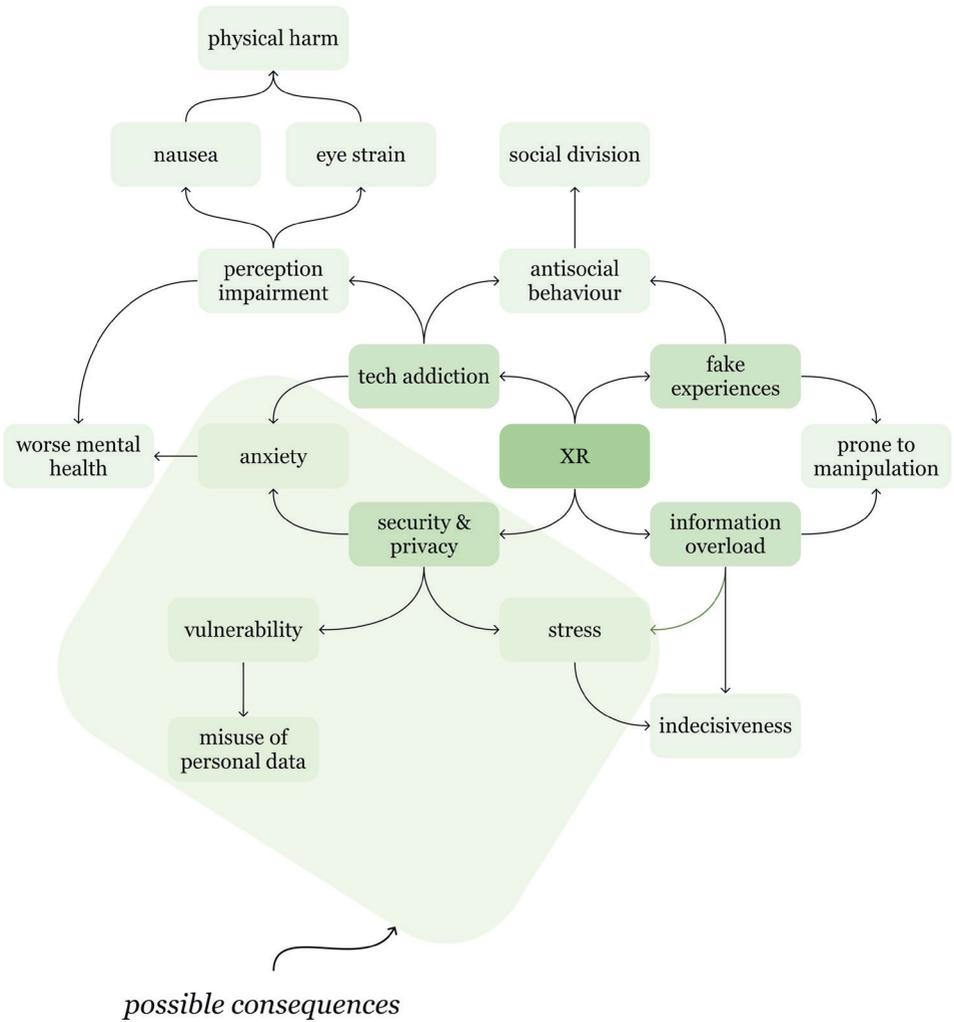
Once I identified the neccessary behavioural impact, I had to find a fitting technology. I knew from a workshop on inclusive design that immersive technologies (XR) such as VR and AR, could be used for immersive storytelling to create empathy and awareness.

But before moving on, I had to check the potential impact the concept could pose on society. By placing XR in the middle and mapping out possible consequences, I got a good overview of the likely impact of the concept. As the concept is thought to be used only once in a while, I ruled out consequences likely caused by excessive use of XR.

As a result I was left with the awareness that the concept *immersive VR for active anti-racism* might cause anxiety, stress and security and privacy issues, which in turn might make the user's data vulnerable to misuse.

Summary

" Whether aware of it or not, **designers bring values and belief systems into the design practice based on their position in the world**, and this influences the design in a particular way. Arguing that designers influence their design is not a controversial argument to make, but when design deliberately engages with power, social change, and the political condition, it seems increasingly important that designers critically reflect on their agency and position.

- Aarhus University (2017)

As the aim of this concept was to illustrate a reflective design approach with a transformative impact, the concept ends here.

A transformative approach isn't easy, and *designing for active anti-racism* could have had entirely different outcomes, depending on the designer. For the scope of this project, I identified through external research that the *bystander effect*, a common, cognitive bias, was the main challenge to be overcome. As this challenge could be broken down into root behavioural causes, it was easier to break this down into a behavioural analysis, and identify possible behavioural objectives that could impact this bias.

Coercing human behaviour is in itself an ethical dilemma. Steering, helping, guiding or forcing human behaviour is problematic, especially so if the designer lacks self-awareness about their implicit bias and privilege. Therefore, it is essential that any approach seeking to influence human behaviour is accompanied with active, continuous reflection.
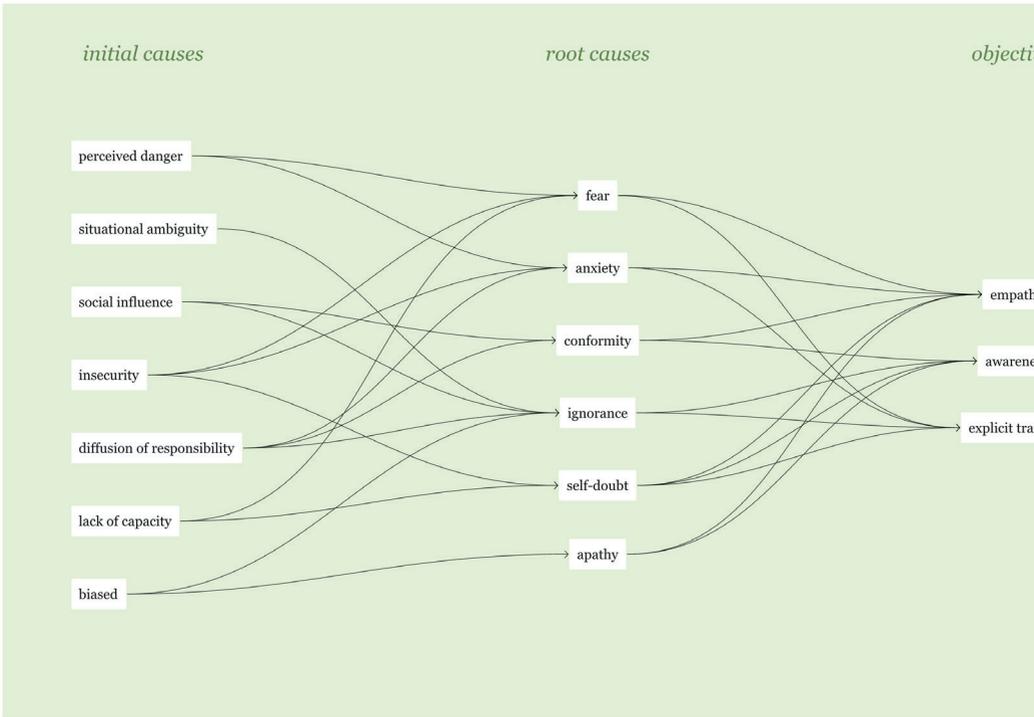
Although these methods were presented in a sequence, I suggest they be used iteratively, depending on need. As an example, following *Method 5 - Impact Analysis*, could be paired with a new iteration of *Method 1 - Bracketing your bias*, so the designer is continuously practicing their ability to identify when and if their personal values might influence the process.
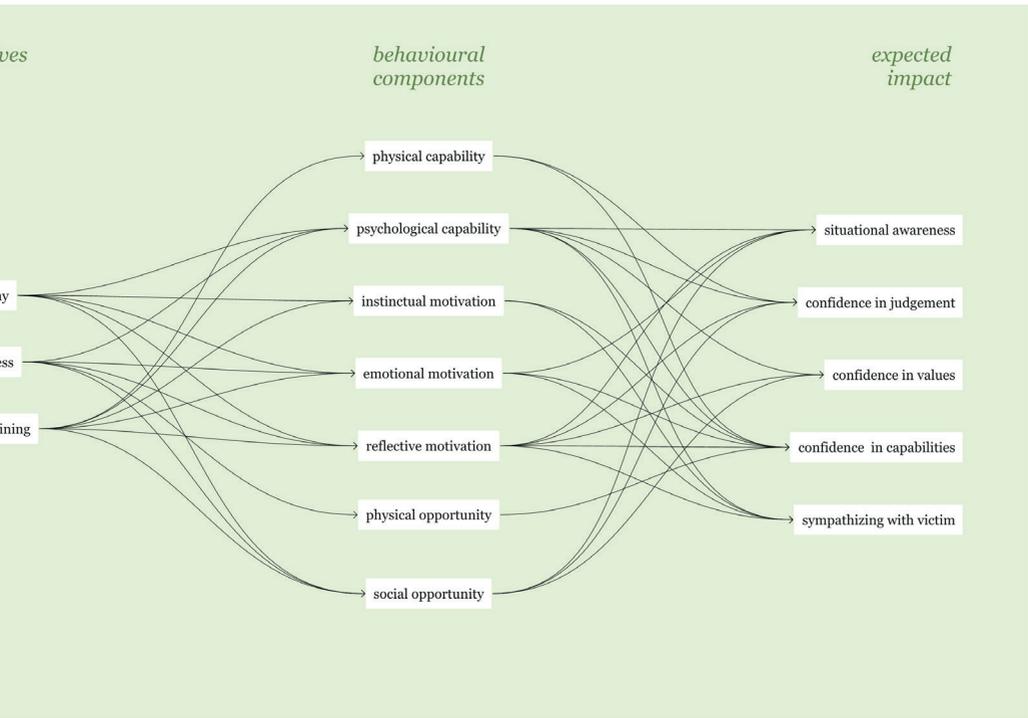
Another example is to continuously update the *Method 3 - Influencing Behaviour* as the designer gather more insight. As seen below, this graph showing the summary of *Method 2 - Understanding Behaviour* and *Method 3 - Influencing Behaviour*, is thought of to be iterated continuously as the designer (and team) gets a broader perspective, and to be used as a communication tool for interdisciplinary teams.

Final thoughts

If you're thinking that one designer can't really make an impact on society, think again. You may know the Swedish inventor Sten Gustaf Thulin by his infamous creation the plastic bag; invented as a sustainable and durable alternative to the environmentally harmful paper bag. A well-intended solution with horrible consequences. It happens. Despite his good intentions, Thulin failed to anticipate people's behaviour, and thus the reality of his design. Et voila, the ocean is soon to hold more plastic than fish. So much for environmentalism.

" In other words, **we're not hired to just dig a ditch, but to evaluate the economic, sociological, and technological impact of that ditch**. If the ditch fails those tests, it's our job to destroy the shovels.

- M. Monteiro, *Ruined By Design* (2019)

Another inventor you've probably heard about, is the American computer programmer Jack Dorsey who designed a service to enable easier communication between his friends. Through a lack of future envisioning combined with a lack of diversity amongst the developers and designers, his service is now a breeding ground for white supremacy, racism, sexism and hateful attitudes. Some people elected country leaders even use it to encourage violence and spread misleading fake news. This service is Twitter. This is today.

"

At this very moment enormous numbers of intelligent men and women of goodwill are trying to build a better world. **But problems are born faster than they can be solved.**

- B. F. Skinner, *Warden Two* (1966)

All humans are biased. It's in our nature. Biases help us make decisions and avoid information overload. Biases help us manage and survive a world full of input. However, when we are designing for other people, our implicit bias makes our design biased. If we are blind to our own privilege and biases, we are blind to how we are affecting people and influencing society.

If you think design shouldn't be political, that's a privilege. Nothing is ever truly neutral, including design. But by addressing your privilege, your bias, your implicit cultural and societal values and attitudes - you make your *intention* transparent.

Many behaviour-centered design approaches today fall short due to several pitfalls. The designer may fail to see the users as part of a bigger, societal structure, full of external influences overpowering the intended design solution. The designer may also fail to acknowledge that all design is, by nature, biased and political. No design is ever neutral, as no designer is ever free from implicit societal and cultural biases, values and attitudes.

As designers we hold a responsibility to the society we are designing for. Even if you're designing for a narrow user group, the service will still be used within a society. Maybe within a country. Maybe all over the world? As designers, we hold the power to influence and shape behaviour. And as designers, we hold the responsibility to make sure we are contributing to an inclusive society built on trust, equality and accept.

The cone diagram labeled (from top to bottom): Preferable, Possible, Plausible, Probable
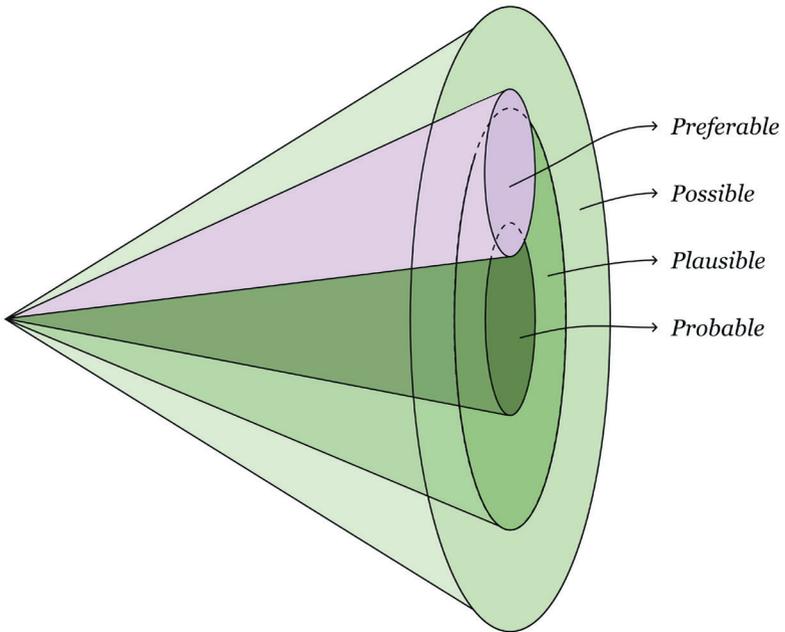
What does our future look like?

Behaviour design is full of potential. By acknowledging our bias as designers, and seeing the user not in isolation. but as part of a bigger structure, we may come closer to predicting the impact of our design. Second, by shifting our approach from artefact to impact-centered, we may begin to understand *how design impacts society*. No matter the user group, society is always the underlying stakeholder.

Because you're reading this, I know you want to do good. It's time to start designing with a vision of the society you wish you lived in.

"

Design does not exist in a vacuum.

impact and everything you do is

Ultimately we must judge the value o

than any aesthetic considerations. A

cannot be said to be well-designed,

might be, because to design it well i

totalitarian regime designs is well-

by a totalitarian regime.

\- Mike Mont

Society is the biggest system we can

a part of that system, good and bad.

of our work based on that impact, rather

An object that is designed to harm people

no matter how aesthetically pleasing it

s to design it to harm others. Nothing a

designed because it has been designed

teiro, *A Designer's Code of Ethics* (2017)

Hungry for more?

Video:

A New Agenda for Tech (2019) Center for Humane Technology, free online at humanetech.com

Literature:

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Nudge (2008) Richard Thaler

Beyond Freedom & Dignity (1971) B. F. Skinner

"Ethical design often can feel so overwhelming that we just block it out. But this taxonomy broke it down into manageable pieces that seemed tangible and realistic for designers." - Maureen (34)

Idun Ramstad, 2020