19. September, 2023, Brasilia

CINCO

From Concept to Action

How to use Behavioural Insights to solve government issues

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CE of INUDGEYOU - The Applied Behavioural Science Centre

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iNudgeyou
The Applied Behavioural Science Centre

An independent Research & Development Centre advancing Applied Behavioural Insights since 2010

We specialise in researching, developing and testing new choice architectures based on behavioural insights (BI), i.e., insights from the Applied Behavioural Sciences.

To this day, since 2010, iNudgeyou remains the impossible idea; an independent research centre dedicated to moving the frontiers of behavioural science, while simultaneously raising the bar for providing scientifically grounded project based advisory for public and private organisations as well as providing world-class intensive training courses in Applied Behavioural Science that revolves around our BASIC framework, a framework which has been published by the OECD.

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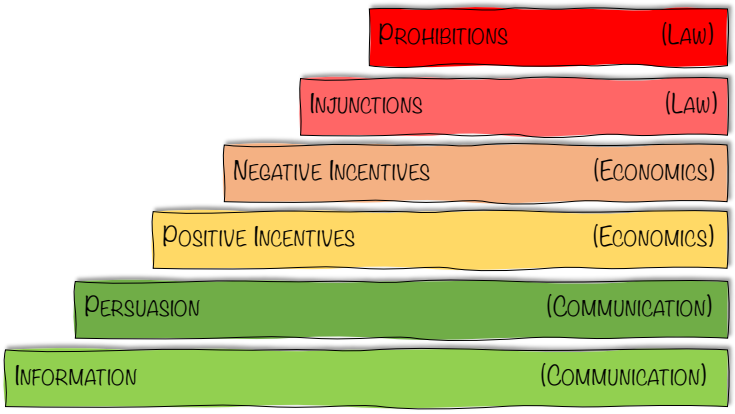
THE TRADITIONAL POLICY ESCALATOR



Adpt. from *Public Health: Ethical Issues Nuffield Council on Bioethics* (2007) Cambridge Publishers Ltd., p. 42

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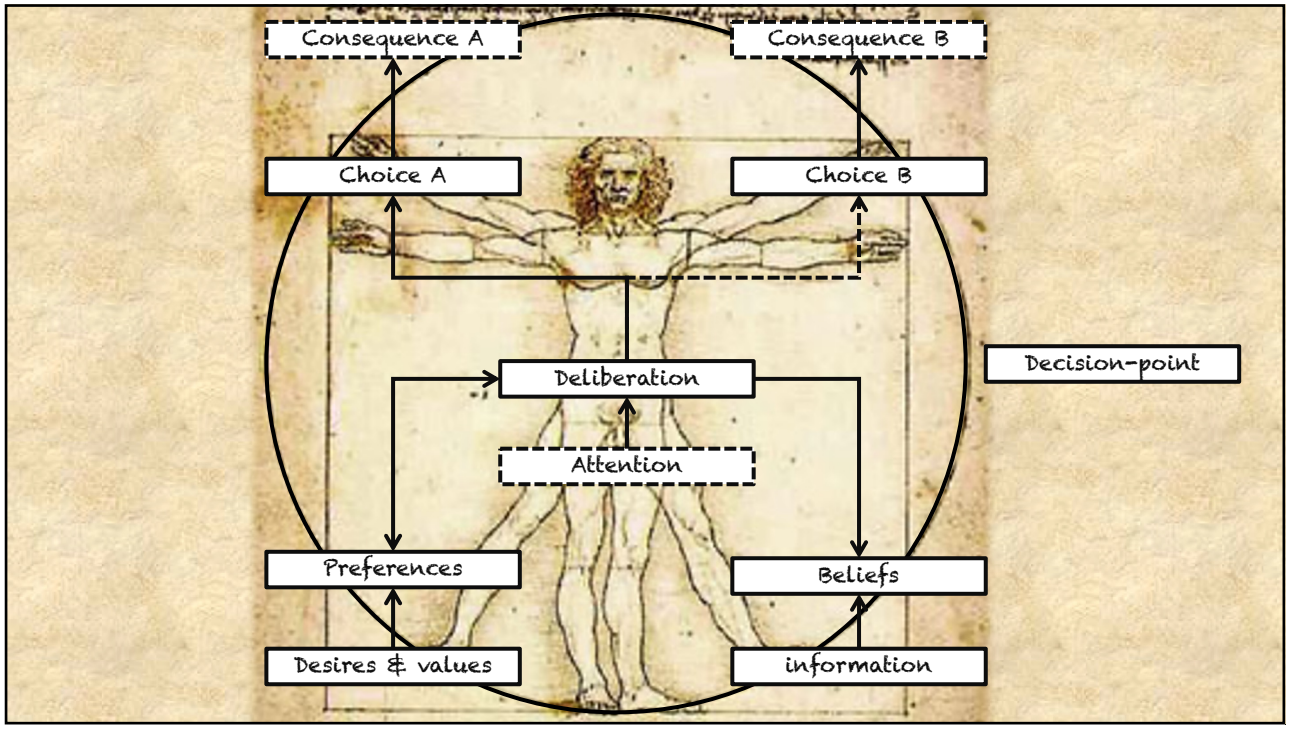

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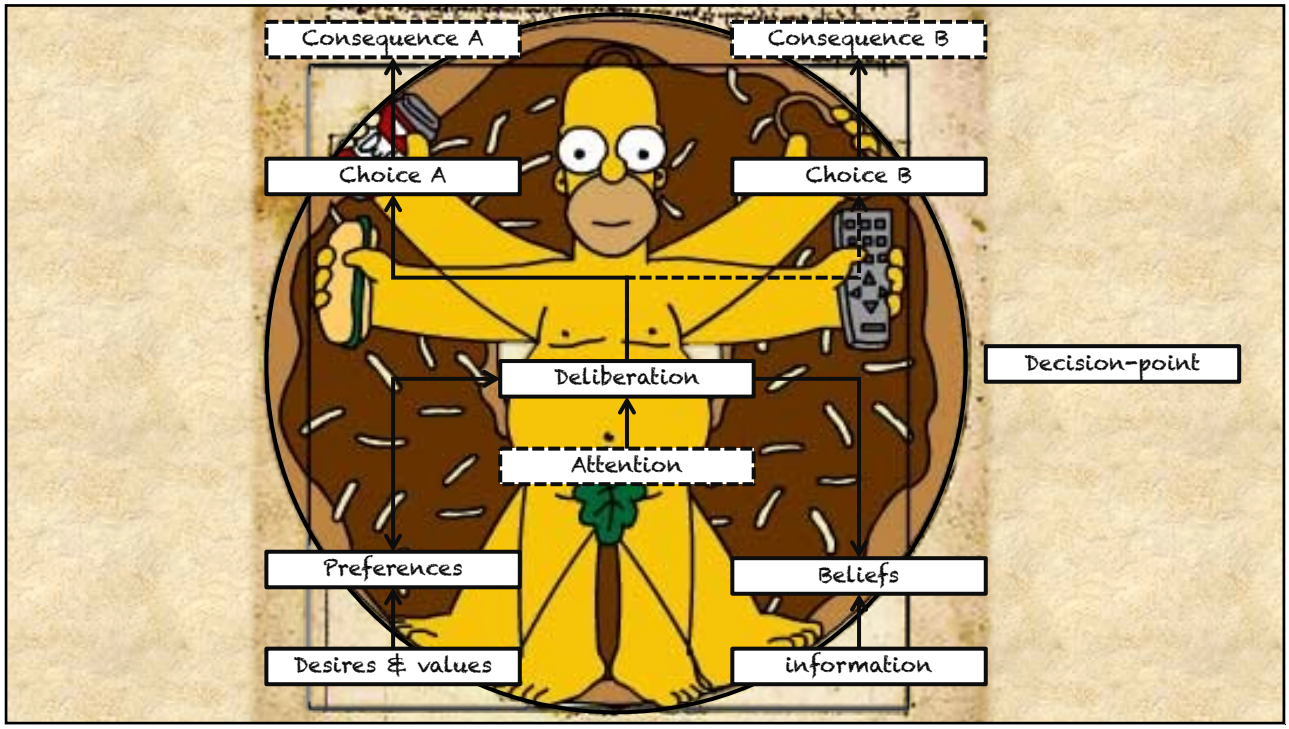

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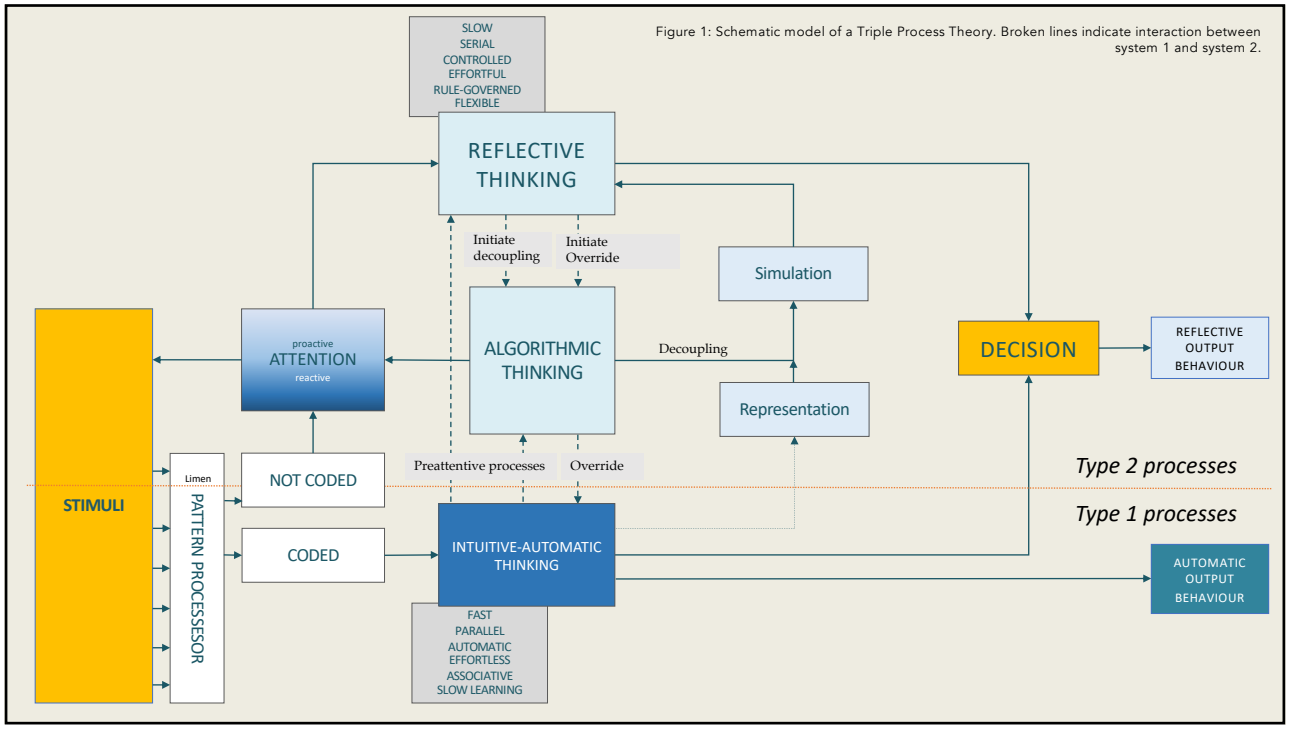

Figure 1: Schematic model of a Triple Process Theory. Broken lines indicate interaction between system 1 and system 2.

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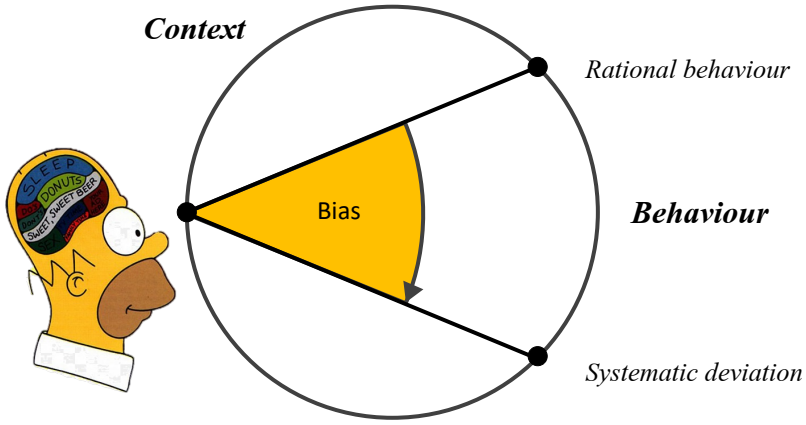
THE CONCEPT OF 'COGNITIVE BIAS'
(GRAPHICALLY ILLUSTRATED)



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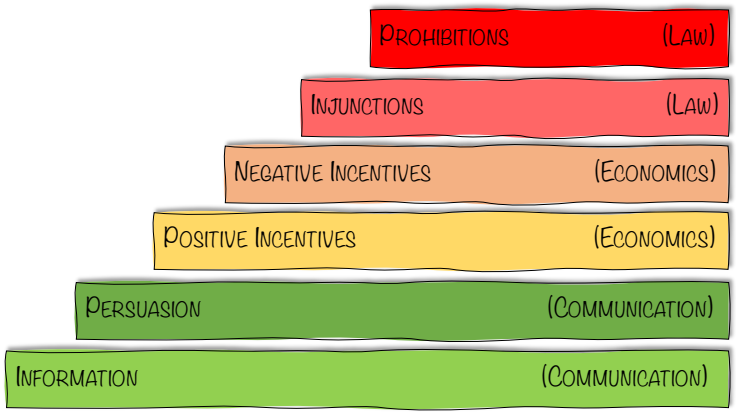

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Nudging healthy & sustainable food choices

Hansen, P.G., Schilling M. & Malthesen, M. (2019). **Nudging healthy & sustainable food choices: three randomised controlled field experiments using a vegetarian lunch-default as a normative signal,** *Journal of Public Health,* Vol. 43, No. 2, s. 392-397.

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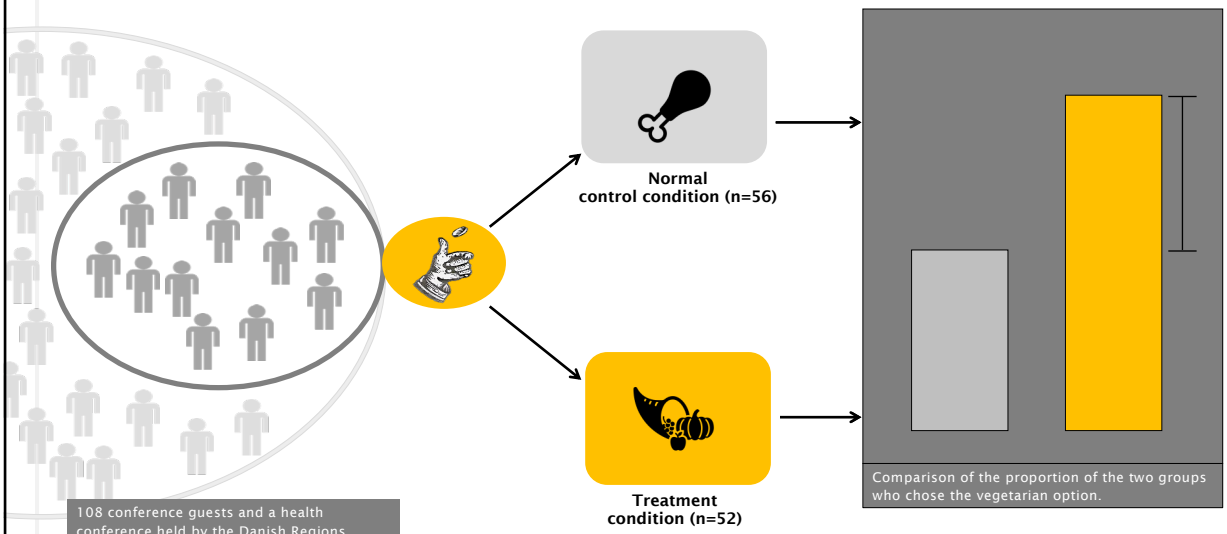
EXPERIMENTAL DESIGN



108 conference guests and a health conference held by the Danish Regions receive an email with a link to a registration site. The link randomises them into two groups.

Hansen, P., Schilling M. & Malthesen, M. (2019). **Nudging healthy & sustainable food choices: three randomised controlled field experiments using a vegetarian lunch-default as a normative signal,** *Journal of Public Health,* Vol. 43, No. 2. 392-397.

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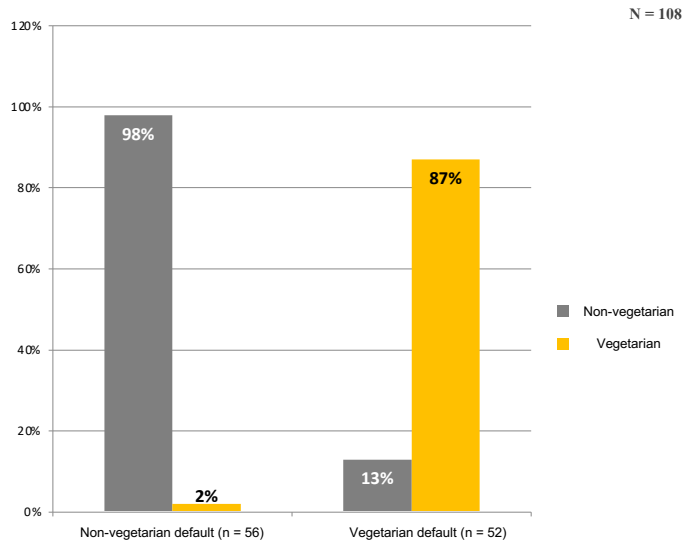
VEGETARIAN DEFAULTS

Non-vegetarian default
At the conference a non-vegetarian buffet will be served for lunch. Please state here if you would like to have a vegetarian dish prepared for you.

Vegetarian default
At the conference a vegetarian buffet will be served for lunch. Please state here if you would like to have a non-vegetarian dish prepared for you.



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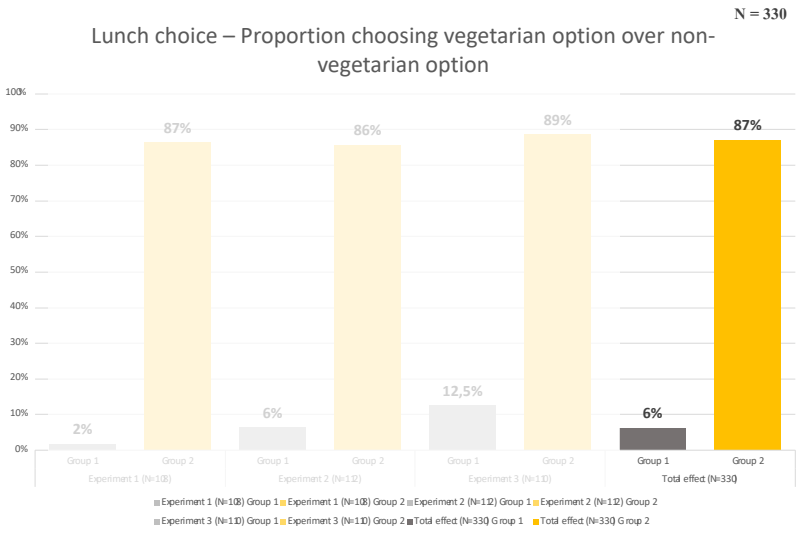
VEGETARIAN DEFAULTS

Non-vegetarian default (Gr. 1)

At the conference a non-vegetarian buffet will be served for lunch. Please state here if you would like to have a vegetarian dish prepared for you:
_____

Vegetarian default (Gr. 2)

At the conference a vegetarian buffet will be served for lunch. Please state here if you would like to have a non-vegetarian dish prepared for you:
_____



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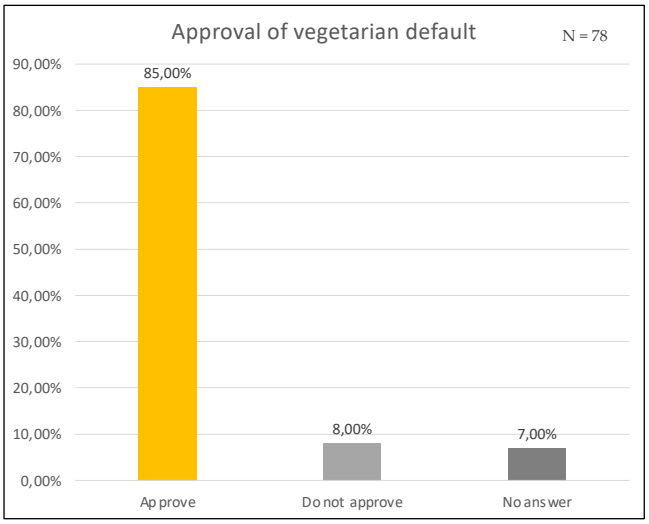
VEGETARIAN DEFAULTS

After the conference the guests where asked about their approval or disapproval of nudging their choice of lunch by changing the default buffet option.

What do you think about changing the default buffet option?
(Check box)

" 'I approve of changing the default option to a vegetarian buffet." ☐

" I do not approve of changing the default option to a vegetarian buffet." ☐



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GREENER BY DEFAULT

Get Started Benefits Resources About Us Donate

Empowering institutions to serve sustainable, inclusive food — by default

By applying the latest behavioral science research, Greener by Default helped LinkedIn:
- Decrease the amount of meat served/person by 50%
- Save 14,400 kg CO_2 equivalent to driving 35,000 miles

01:19 / 01:30

Greener by Default makes plant-based food the default, while giving diners the choice to opt into meat/dairy. This strategy allows institutions to:

- meet carbon reduction goals
- save on food costs
- improve health and inclusivity

all while preserving freedom of choice.

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HEURISTIC DEFINITION

nudge /nʌdʒ/

"Any intentional aspect of a choice architecture that should not influence behaviour in principle..., but does in practice."

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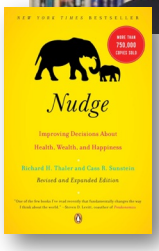

A nudge is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives.

- Thaler & Sunstein 2008, 6

A *nudge* is a function of any attempt at influencing people's judgment, choice or behaviour in a predictable way, that is

(1) made possible because of cognitive limitations, biases, routines, and habits in individual and social decision-making posing barriers for people to perform rationally in their own self-declared interests, and which

(2) works by making use of those limitations, biases, routines, and habits as integral parts of such attempts.

Thus a nudge amongst other things works independently of:

(i) forbidding or adding any rationally relevant choice options,
(ii) changing incentives, whether regarded in terms of time, trouble, social sanctions, economic and so forth, or
(iii) the provision of factual information and rational argumentation.

Hansen, PG (2016). **The Definition of Nudge and Libertarian Paternalism: Does the hand fit the glove?** *The European Journal of Risk Regulation*, Vol. 7, No. 1, 155-174.

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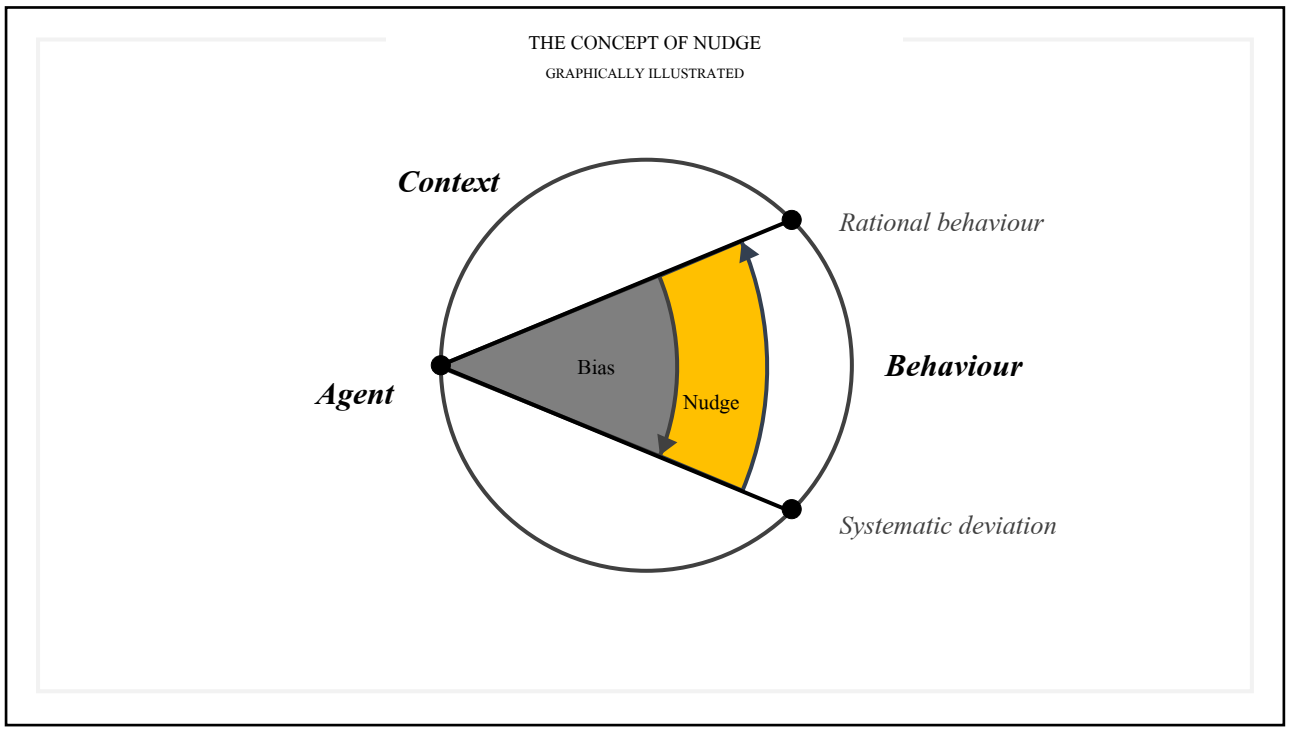

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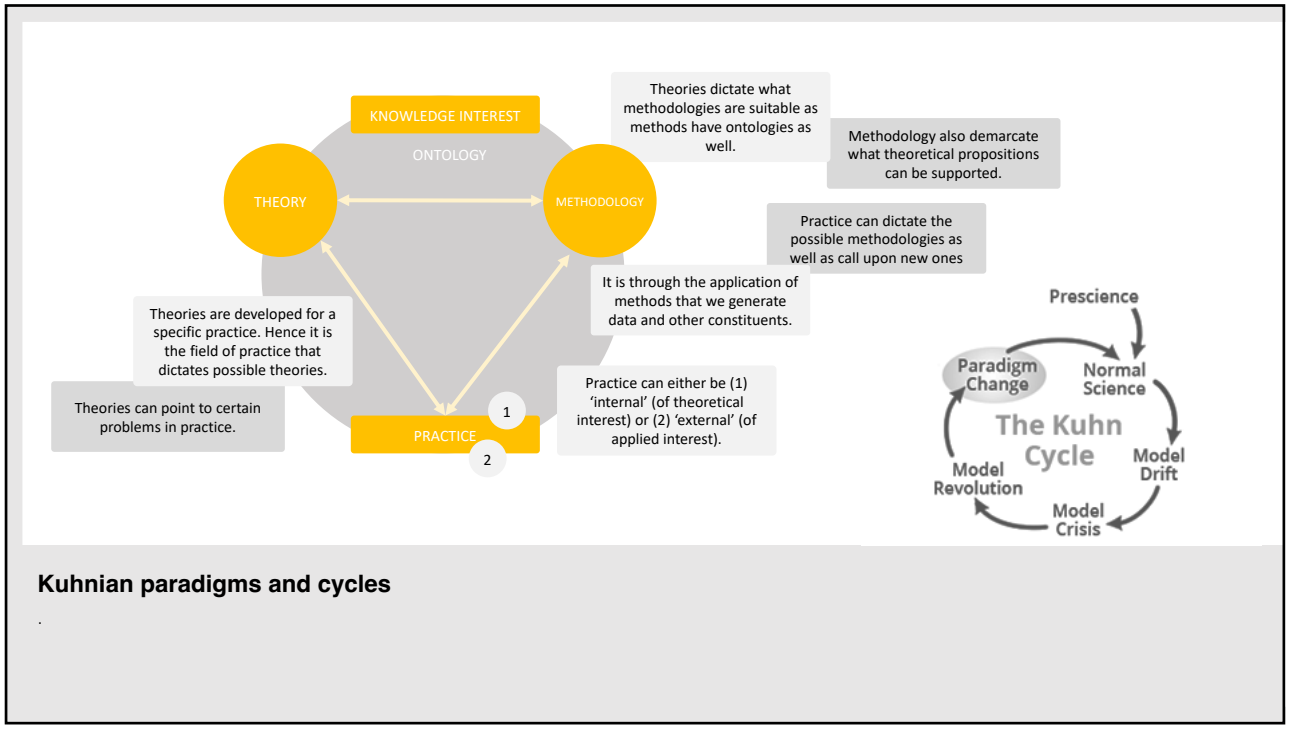

Kuhnian paradigms and cycles

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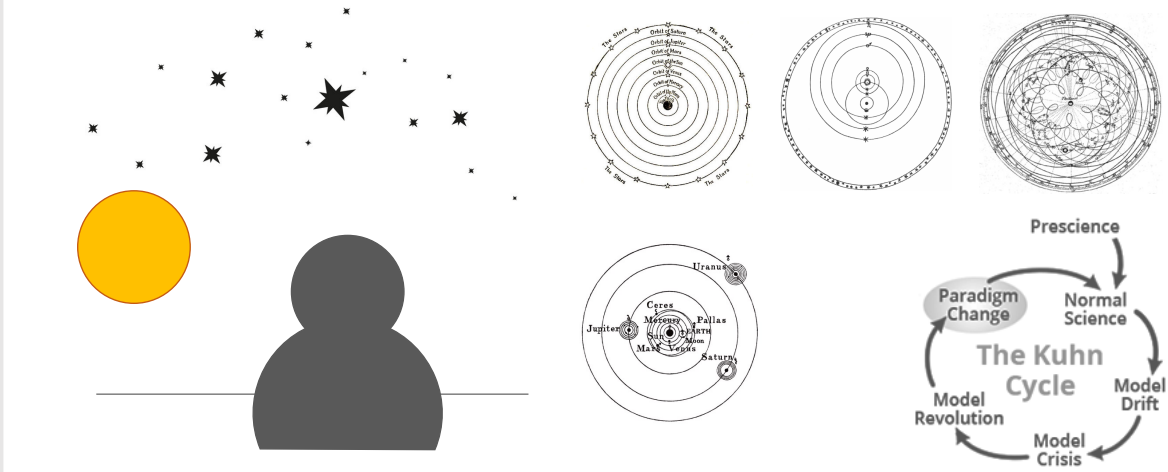

From Prescience to scientific paradigm to scientific revolution

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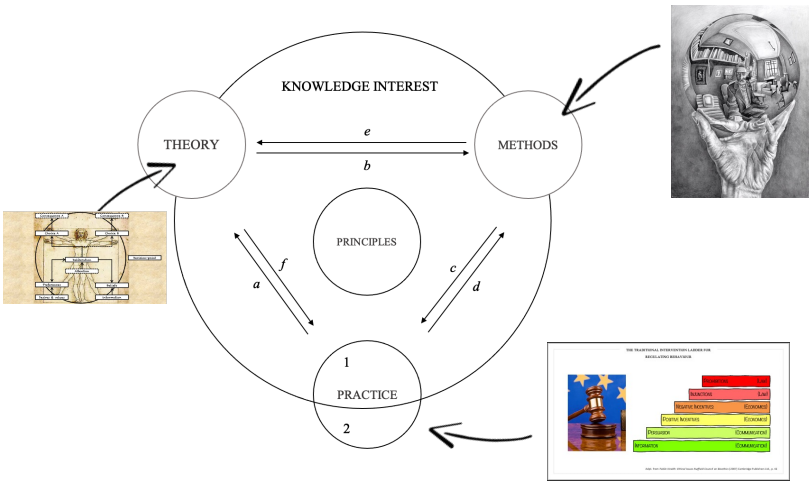

- Folk psychology and public opinion
- Traditional rationality based communication
- Traditional rationality based economics
- Traditional rationality based law
- … and all the other disciplines sharing the rational foundations

Theory of mind or folk psychology (prescience) and the rationality based paradigm

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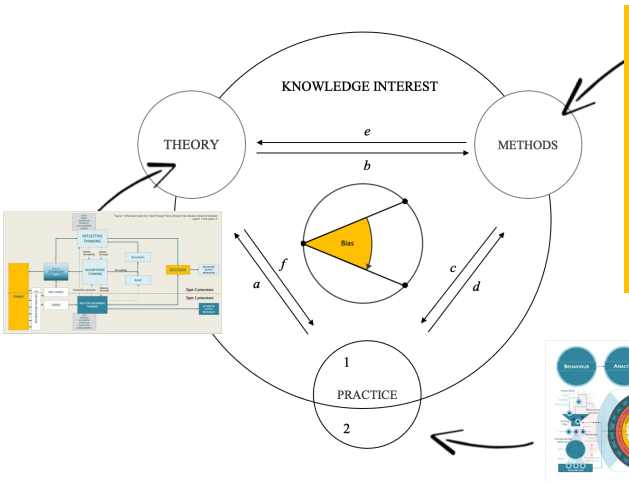

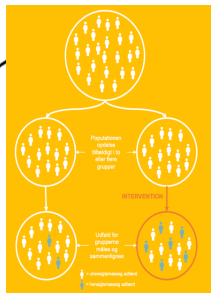

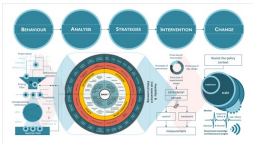

Folk psychology and public opinion

Behavioural comms

Behavioural economics

Behavioural law

… Behavioural finance, behavioural marketing, behavioural healthcare, etc.

The crisis in the rationality based paradigm and 'the behavioural turn' aka Behavioural Insights

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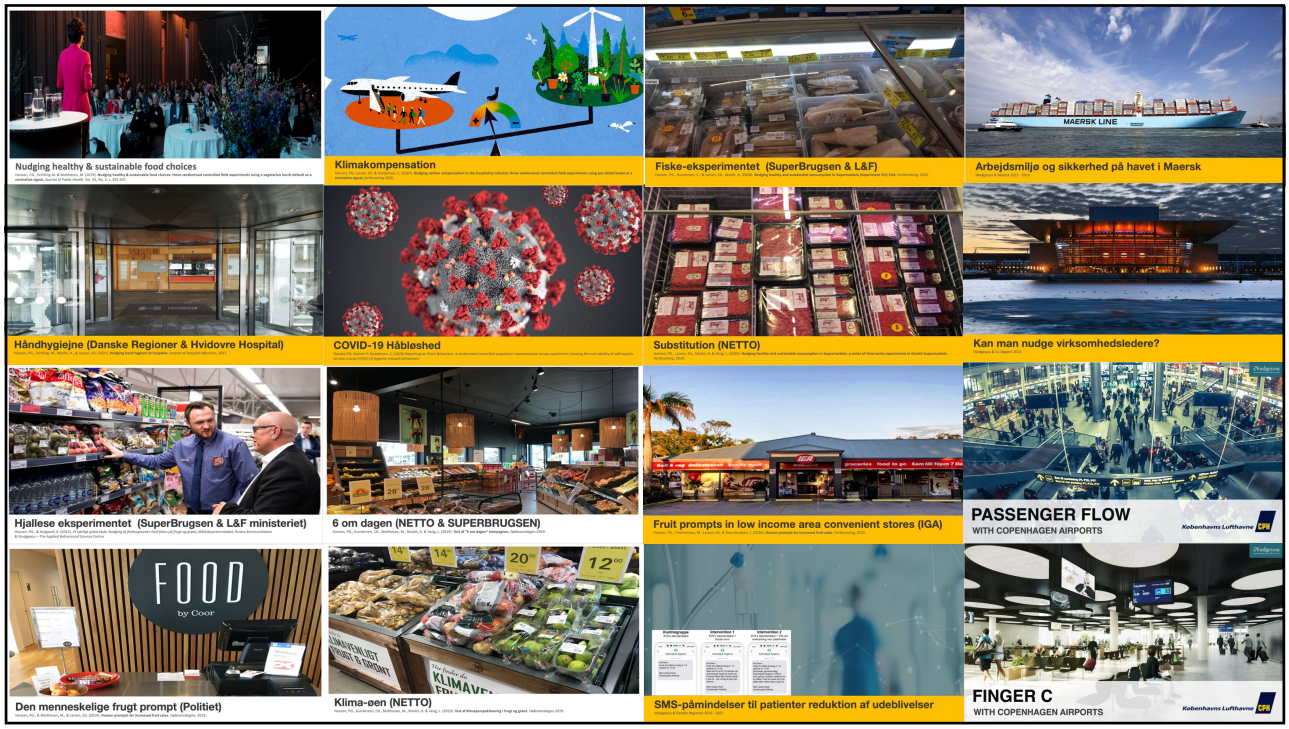
Nudging healthy & sustainable food choices
Klimakompensation
Fiske-eksperimentet (SuperBrugsen & L&F)
MAERSK LINE
Arbejdsmiljø og sikkerhed på havet i Maersk
Håndhygiejne (Danske Regioner & Hvidovre Hospital)
COVID-19 Håbløshed
Substitution (NETTO)
Kan man nudge virksomhedsledere?
Hjallese eksperimentet (SuperBrugsen & L&F ministeriet)
6 om dagen (NETTO & SUPERBRUGSEN)
Fruit prompts in low income area convenient stores (IGA)
PASSENGER FLOW
WITH COPENHAGEN AIRPORTS
Københavns Lufthavne
FOOD
by Coor
Den menneskelige frugt prompt (Politiet)
Klima-øen (NETTO)
SMS-påmindelser til patienter reduktion af udeblivelser
FINGER C
WITH COPENHAGEN AIRPORTS
Københavns Lufthavne

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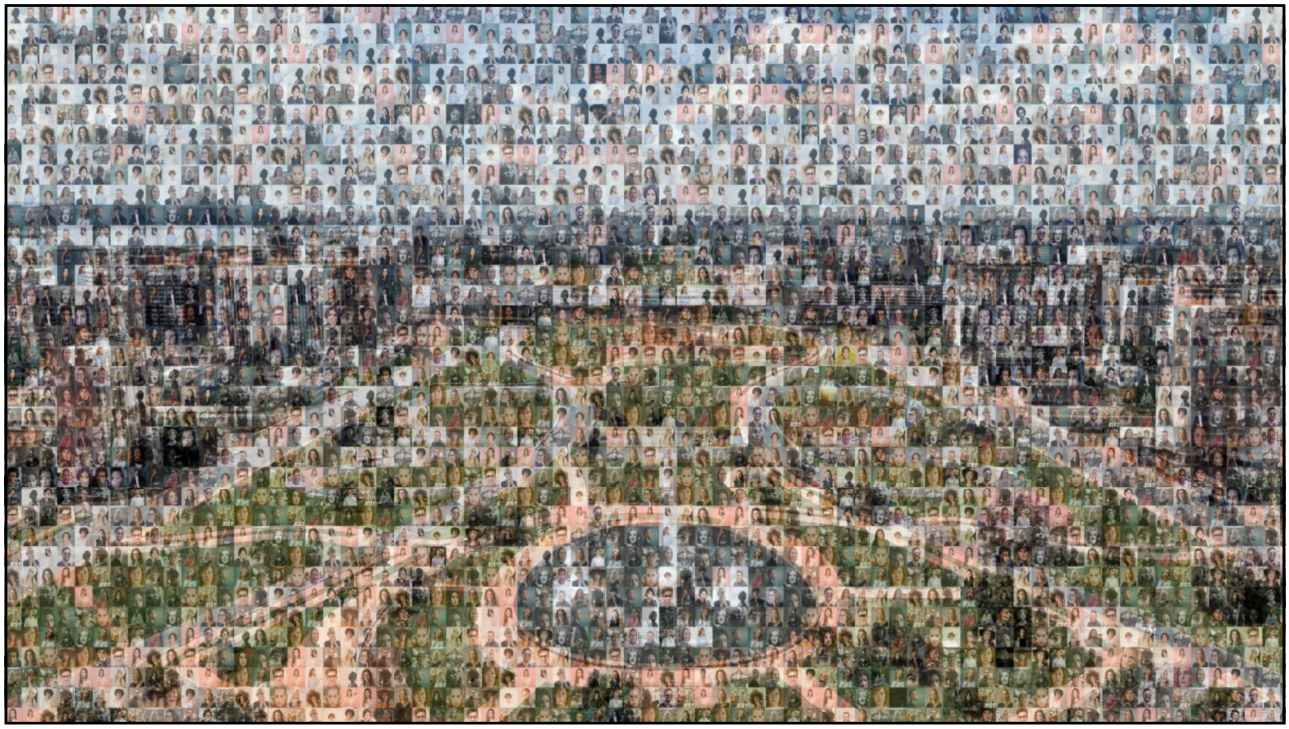

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POLICY PROBLEM #1

Only 1 out of 100 Danish companies grow beyond 50 employees.

POLICY PROBLEM #2

Barriers entering the workforce for newly educated citizens, unemployed citizens with non-relevant educations, and long term unemployed citizens.

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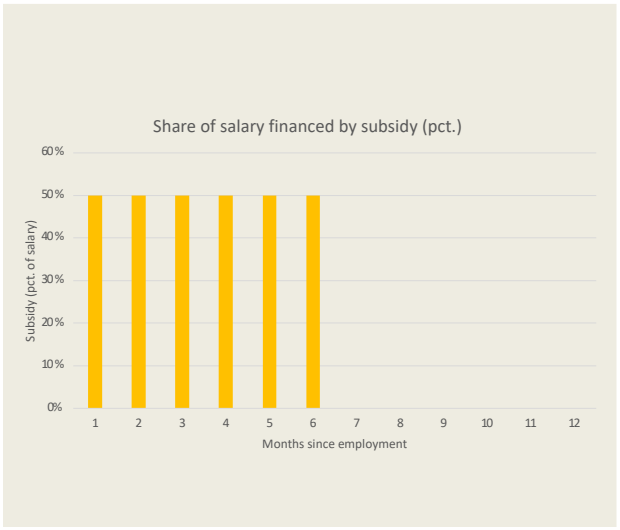

POLICY INITIATIVE

Programmes subsidising companies, e.g. 50% of the salary for the first 6 months, when hiring newly educated citizens, citizens with non-relevant educations or long-term unemployed citizens to grow companies.

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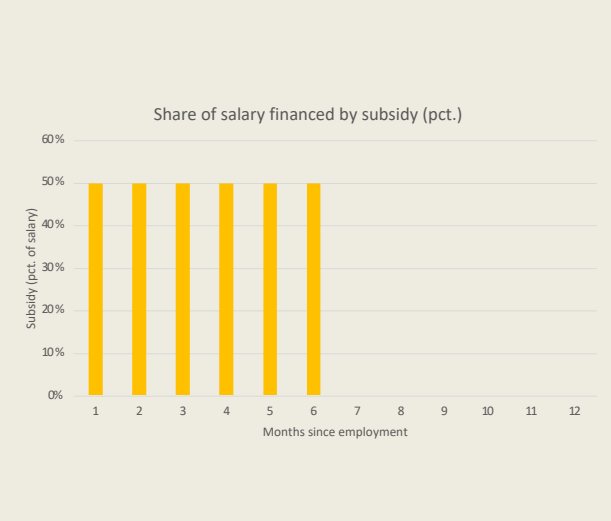

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POLICY OUTCOME

While very few small companies used the programmes, public institutions used it to hire short term work to fill in temporary vacancies as well as substitute for permanent staff.

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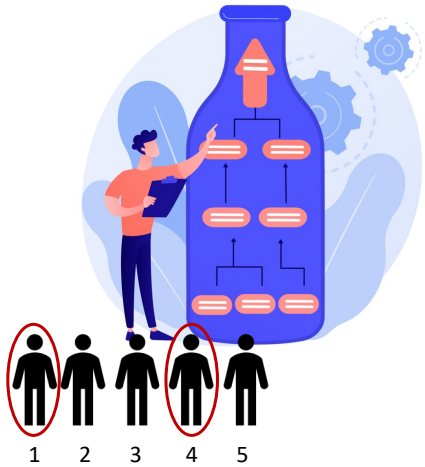

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BEHAVIOURALLY INFORMED DATA-STUDY

To qualify companies needed to have +5 employees, but data retrieved by the Danish Business Authorities showed that most companies experienced bottlenecks at “First employee” and “fourth (back end) employee”.

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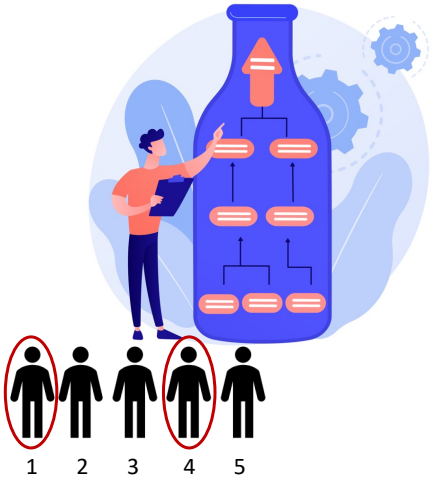

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POLICY INPUT #1

Change programme so that companies do not need to have +5 employees to qualify

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BEHAVIOURAL ANALYSIS: RISK PERCEPTION

Public advisors to small businesses in municipalities could report that committing to paying e.g. 50% of salary from the outset for 6 months as well as the hard end of the programme resulted in negative risk perceptions amongst potential participants.

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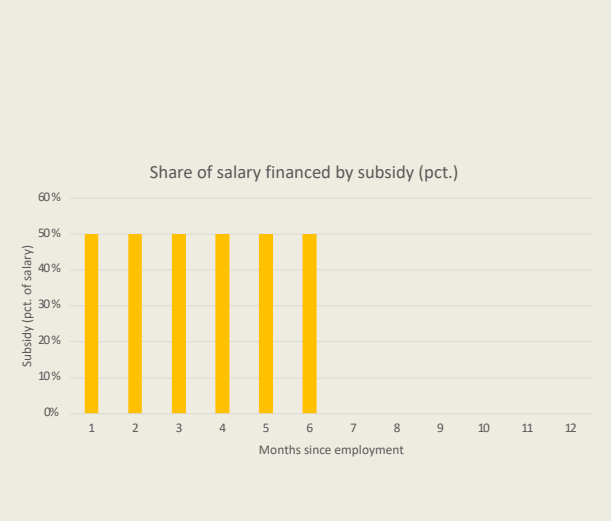

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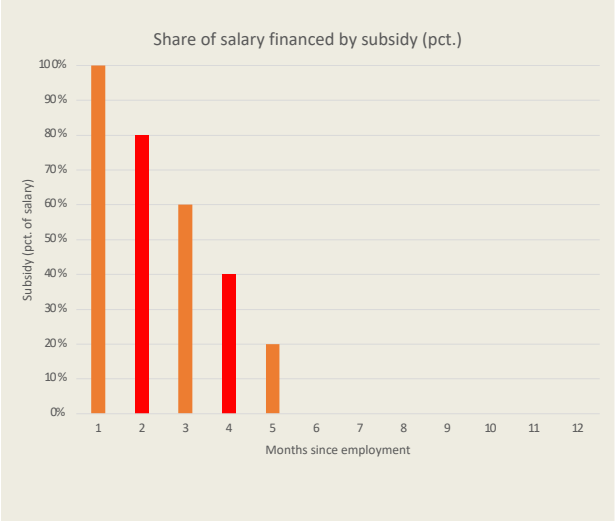

POLICY INPUT #2

Change programme such that (1) companies receive 100% subsidy from the outset which then (2) gradually declines to 0% after 6 months and (3) emphasise evaluations/termination points to minimise risk perceptions relative to commitment and 'hard end'.

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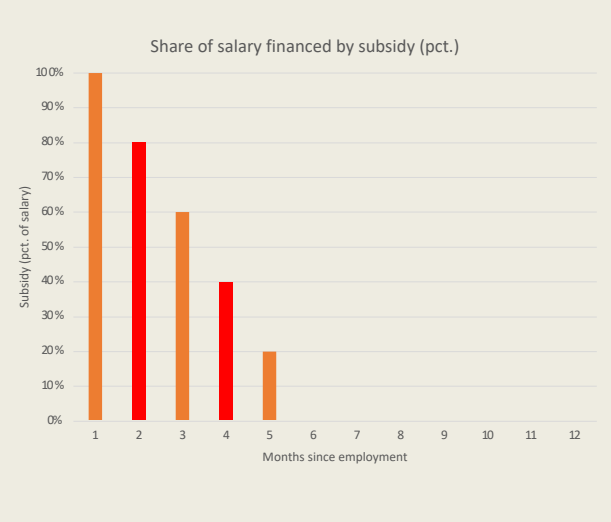

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Change programme such that (1) companies receive 100% subsidy from the outset which then (2) gradually declines to 0% after 6 months and (3) emphasise evaluations/termination points to minimise risk perceptions relative to commitment and 'hard end'.

BEHAVIOURAL ANALYSIS: HAZZLE FACTOR

Tedious paperwork coordinating cross-institutional partners (government agency, municipality job-centre, employee and employer) causing an increased risk to hire 1st employee "off the books" and risk of this procedure carrying over to next hirings.

34

BEHAVIOURAL ANALYSIS: HAZZLE FACTOR

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POLICY INPUT #3

Creating tools for simple, efficient and transparent administrational processes coordinating the participation of multiple partners.

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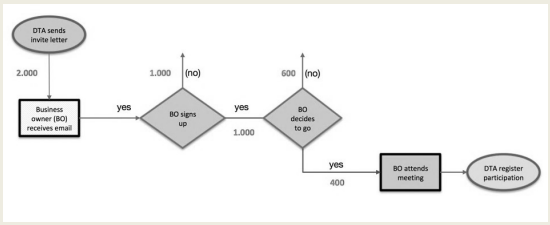
Creating tools for simple, efficient and transparent administrational processes coordinating the participation of multiple partners.

Behavioural flowcharts like all flowcharts make the representation of processes transparent and easy to share as well as provide backgrounds against which to identify the dependency of decision points, dead ends, bottlenecks and friction points that inhibits the efficiency and reliability of the process



GENERIC BEHAVIOURAL TOOL: FLOWCHARTS

Behavioural Flowcharts provide detailed descriptions of how processes actually unfold attaching behavioural measures of how people make choices throughout the process allowing for the identification of crucial decisions points.

36

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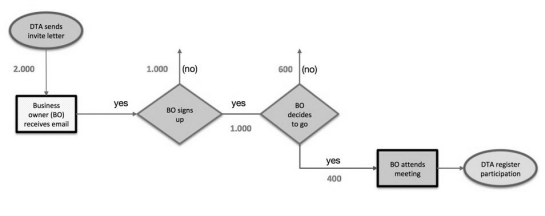

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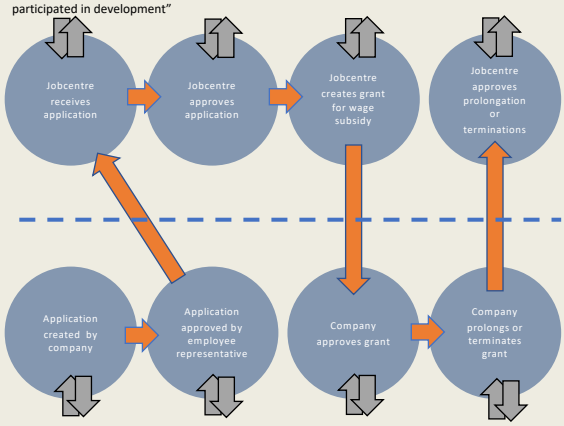
Behavioural Flowcharts provide detailed descriptions of how processes actually unfold attaching behavioural measures of how people make choices throughout the process allowing for the identification of crucial decisions points.

Our fingerprints: Behavioural economist and colleague was part of reform group suggesting such a tool for the Ministry of Employment (BM) and participants in our "check list project" from star participated in development"



VITAS

is a digital and dynamic self-service application system making it easier for all partners to automatically retrieve information, guide decisions and provide transparency as well as validation in the procedure of applying to the wage subsidy program.

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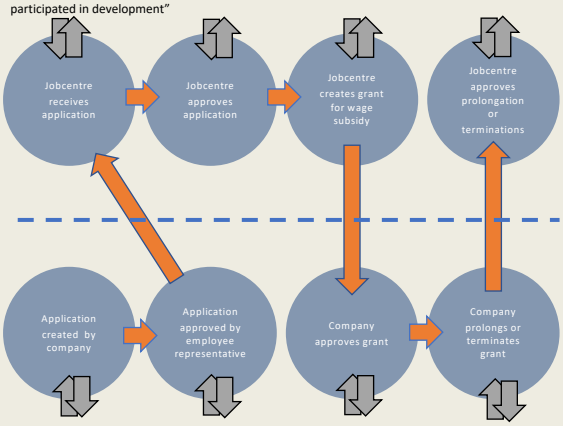

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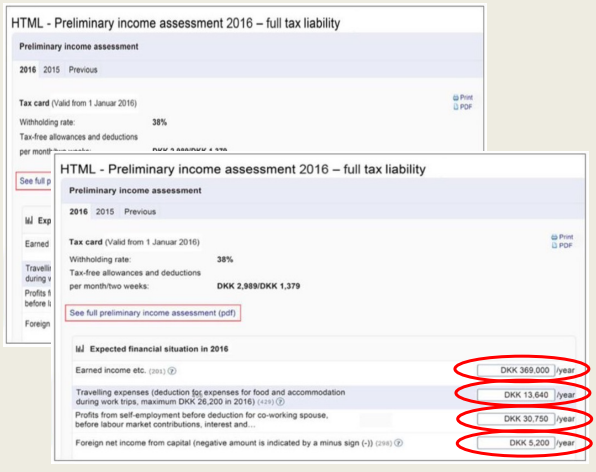

Pre-filled forms as a default has been used in Danish tax forms since the 1990s.

GENERIC BI STRATEGI: USING DEFAULTS

Relevant information is automatically retrieved and pre-filled into procedures thereby reducing the need for search, errors, motivated reasoning and hazzle, but also reduces citizen engagement and insight.

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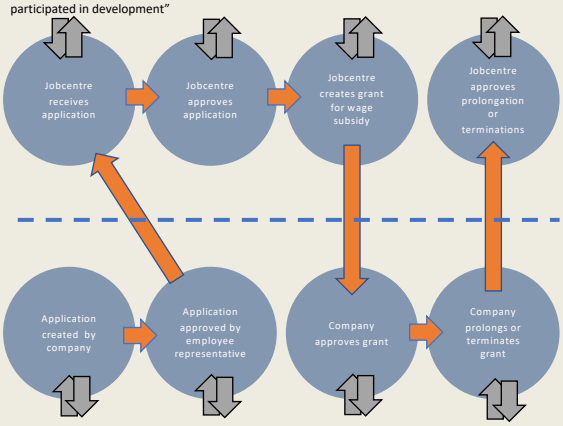
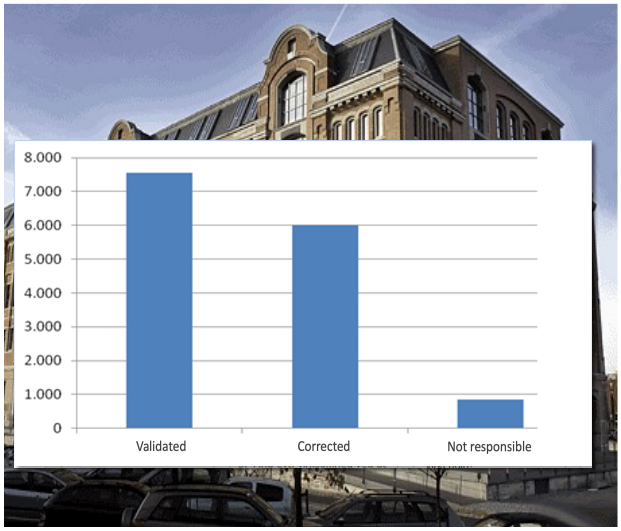


VITAS

is a digital and dynamic self-service application system making it easier for all partners to automatically retrieve information, guide decisions and provide transparency as well as validation in the procedure of applying to the wage subsidy program.



GENERIC BI STRATEGI: USING PROMPTS

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39

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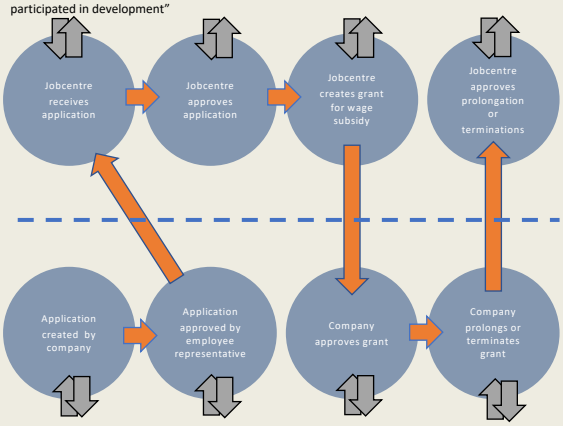

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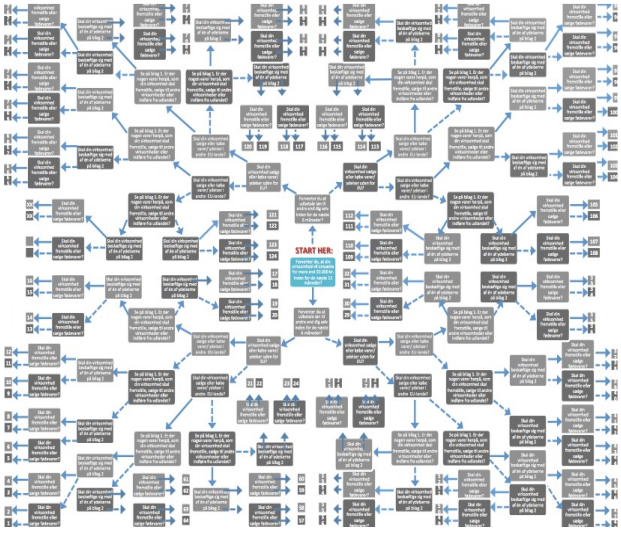


GENERIC BEH. PROBLEM: COMPLEXITY

Digital self-service is prone to cause mistakes and confusing when citizens need to self-categorise withing the boxes and barns of public administration based on legal jargon.

40

Reduction of mistakes in business registration

Hansen, PG & Copenhagen Economics (2020). **Reduktion af fejl i virksomhedsregistreringen,** *iNudgeyou – The Applied Behavioural Science Centre,* 2014.

41

REDUCTION OF MISTAKES IN BUSINESS REGISTRATION

THE DANISH BUSINESS AUTHORITIES

High frequency of mistakes in business registering their company

Massive pressure on front-line staff (call center)

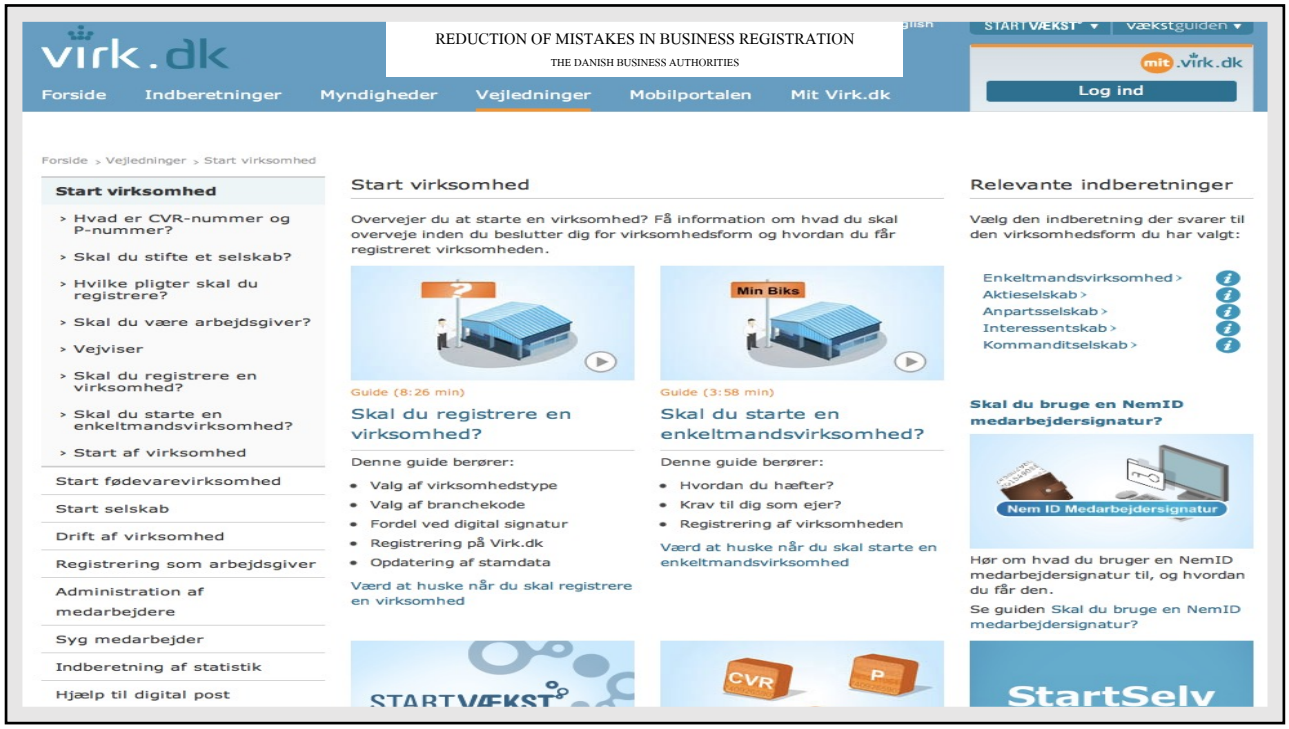
Costs and frustration related to correcting mistakes later on

iNudgeyou
The Applied Behavioural Science Group

Copenhagen Economics CE

Erhvervsstyrelsen

42



43

REDUCTION OF MISTAKES IN BUSINESS REGISTRATION
THE DANISH BUSINESS AUTHORITIES

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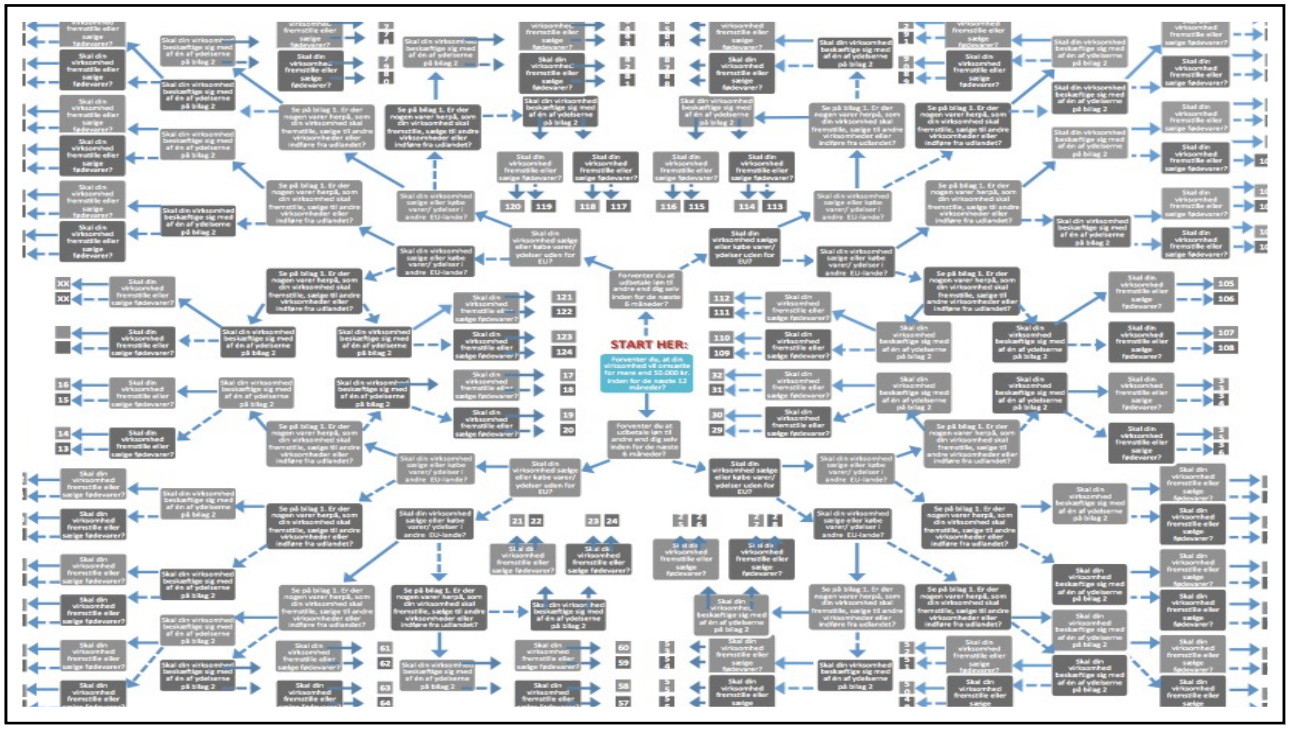
iNudgeyou
The Applied Behavioural Science Group
Copenhagen Economics
CE
Erhvervsstyrelsen

44



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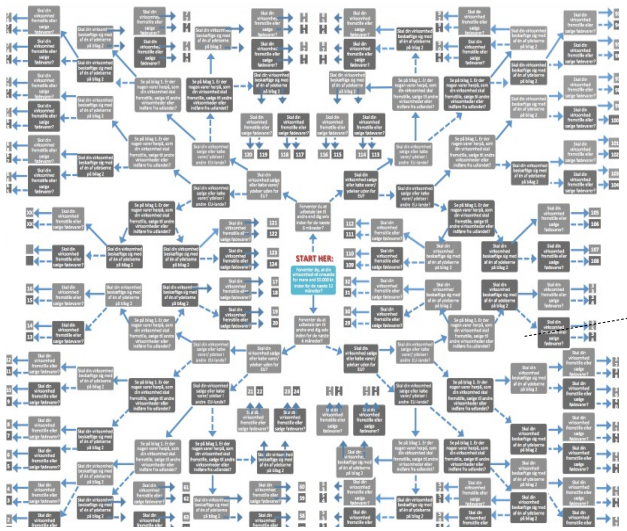
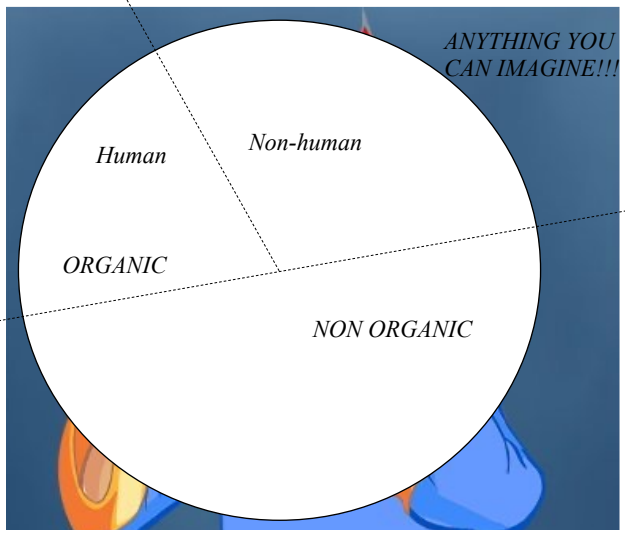




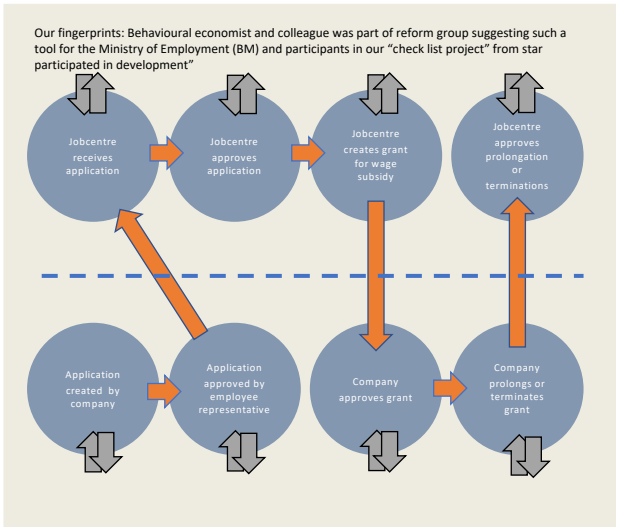
GENERIC BEH. PROBLEM: COMPLEXITY

Digital self-service is prone to cause mistakes and confusing when citizens need to self-categorise withing the boxes and barns of public administration based on legal jargon.

BEHAVIOURAL INSIGHT

Language is based on categories leading to partitioning structures that may be utilised in information search. The Akinator is a well-know children game revolving around that insight.

46



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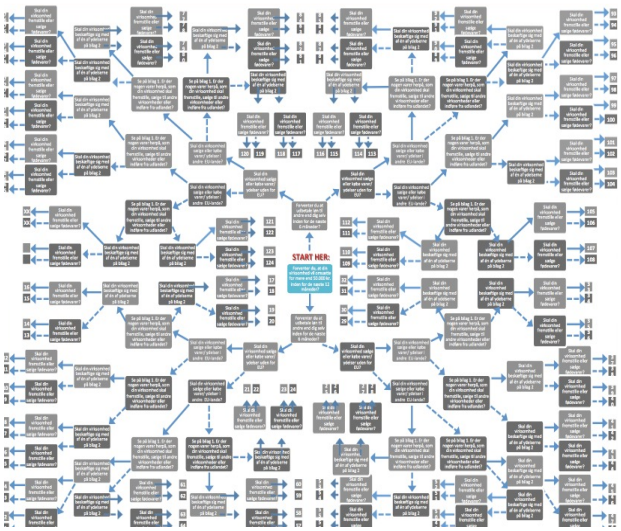


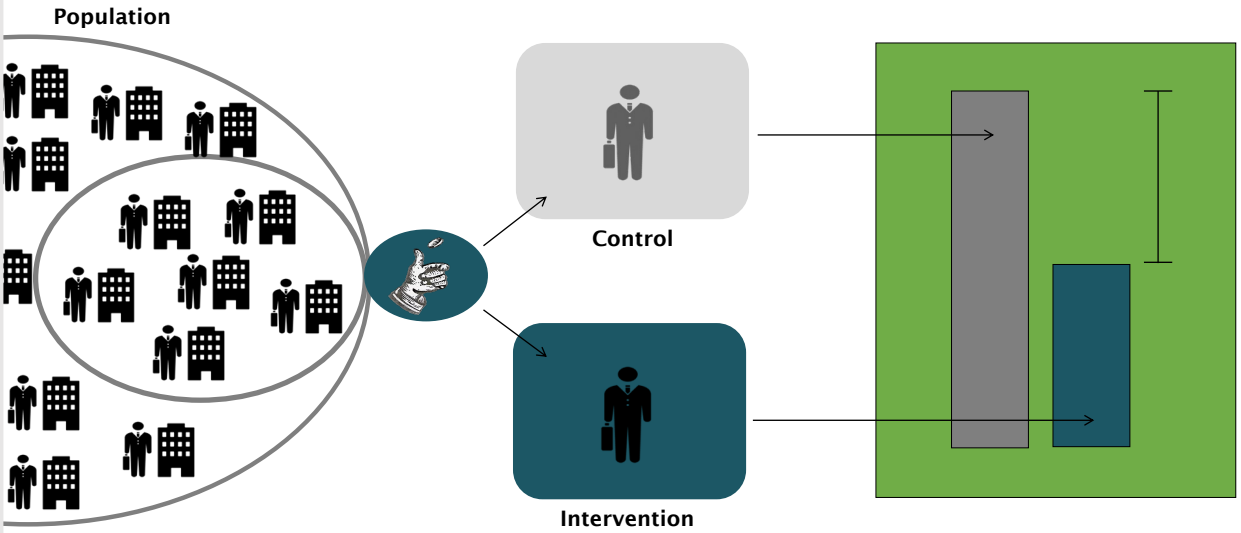
GENERIC BI STRATEGI: DECISION TREES

are branching structures to model sequences of decisions onto their possible consequences so as to allow for analysis. When used as an information-search tree, the same structure is used, but now as a Q&A based tool to guide users to the right answer.

47

REDUCTION OF MISTAKES IN BUSINESS REGISTRATION

THE DANISH BUSINESS AUTHORITIES

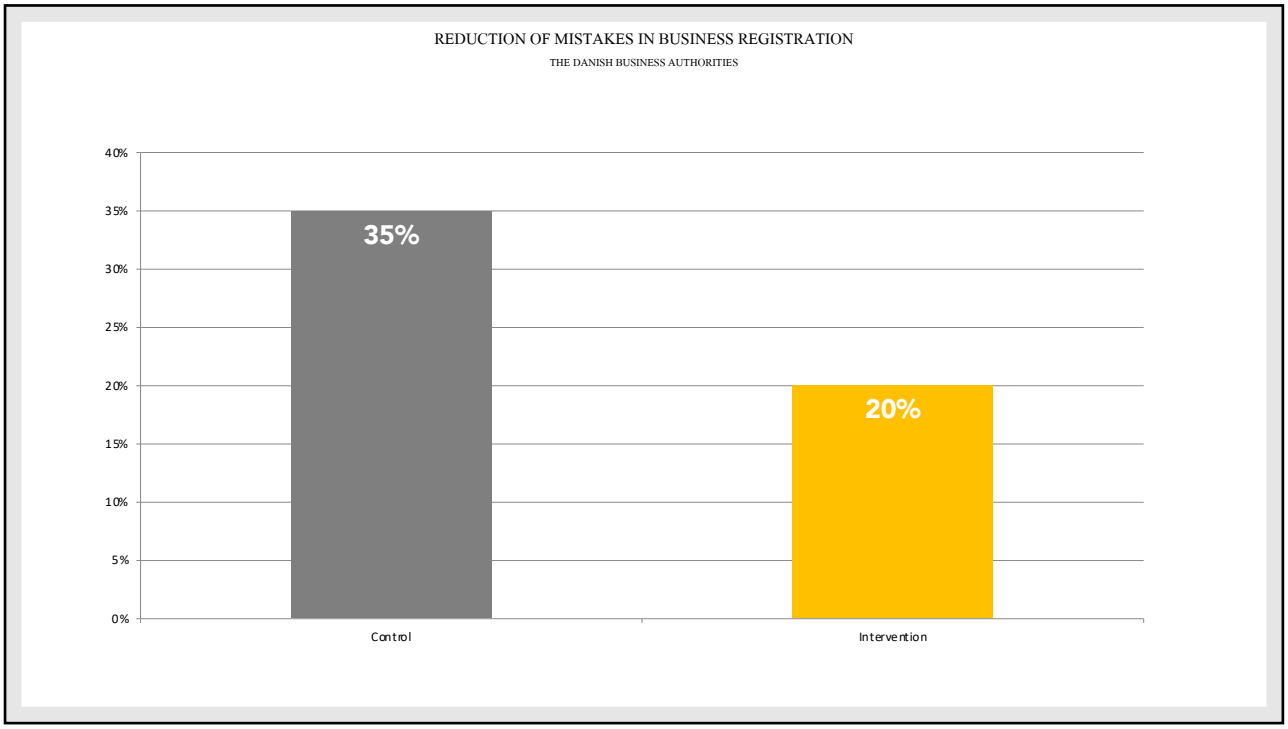


Populationen var iværksættere og der blev samplet fra iværksættere der deltog i KK iværksætterkursus

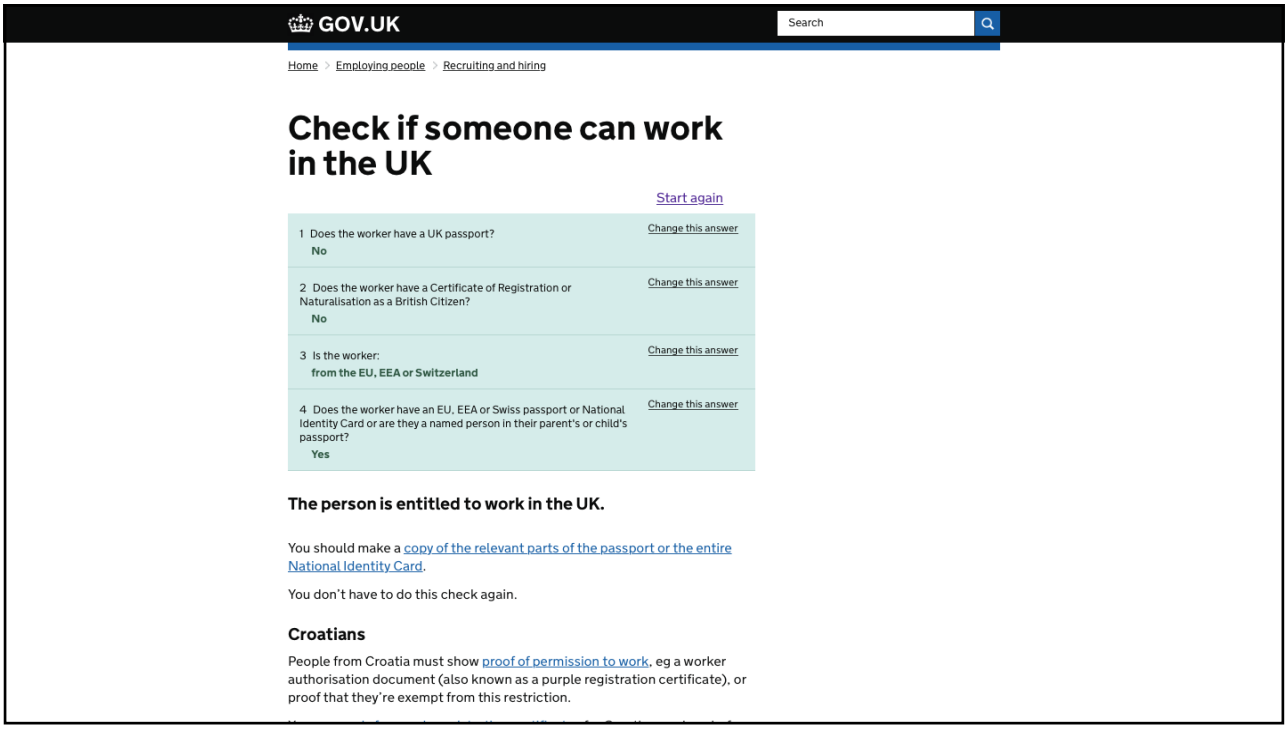
Randomiseret kontrolleret forsøg, hvor deltagere blev sorteret ind i to grupper og besvarede på iPads

Sammenligning af korrekte registreringer relativt til Erhvervsstyrelsen CVR database

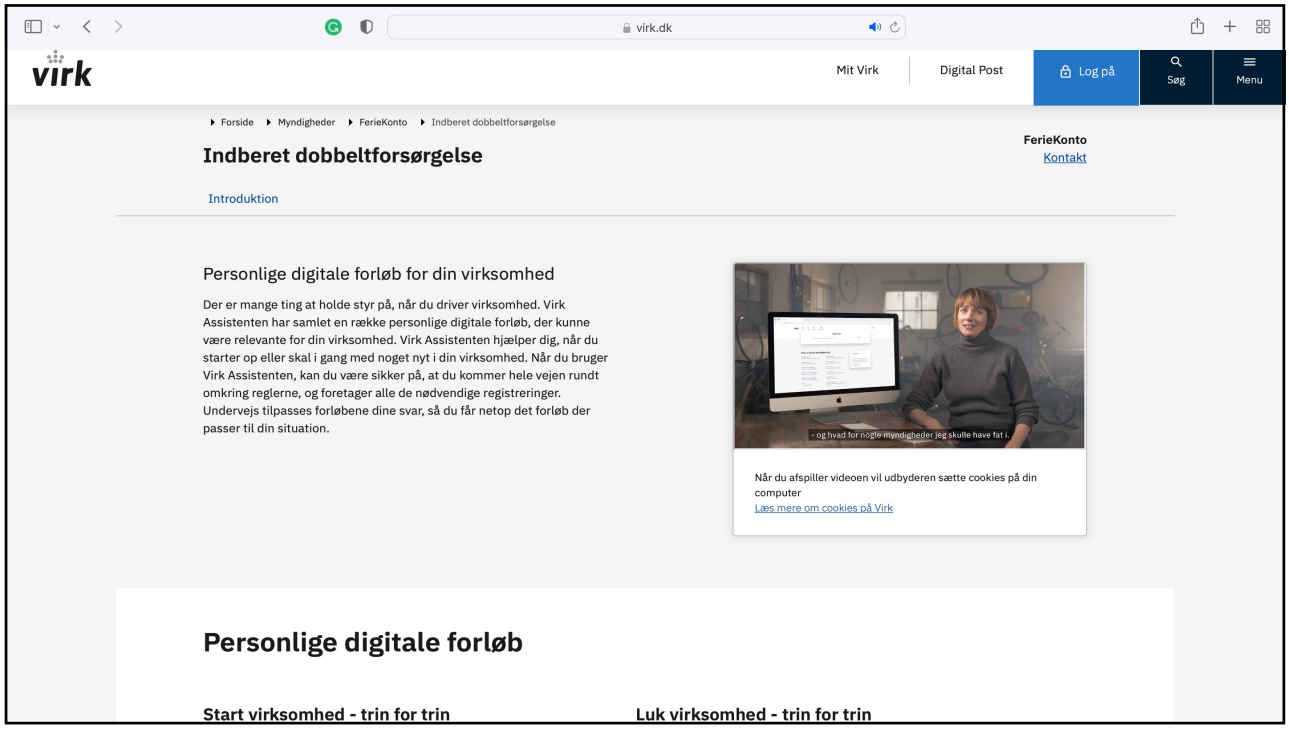
48

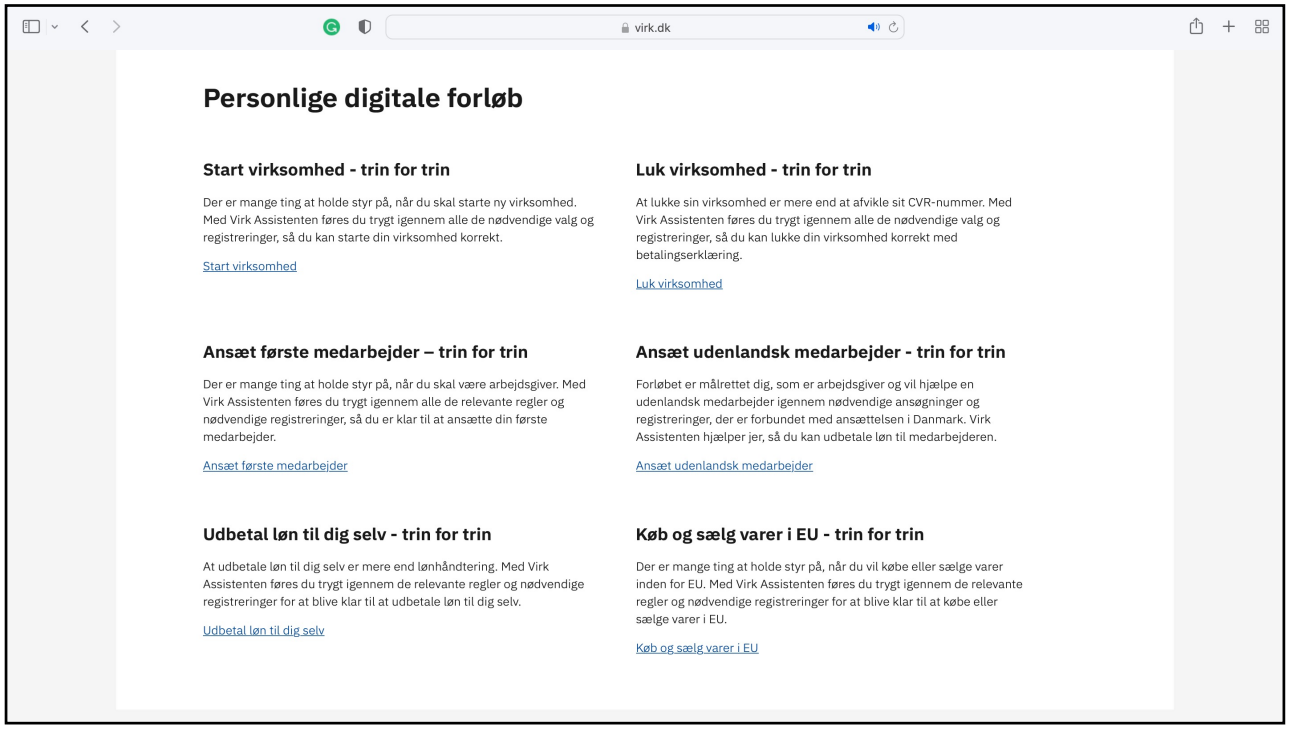

REDUCTION OF MISTAKES IN BUSINESS REGISTRATION
THE DANISH BUSINESS AUTHORITIES
40%
35%
30%
25%
20%
15%
10%
5%
0%
35%
20%
Control
Intervention

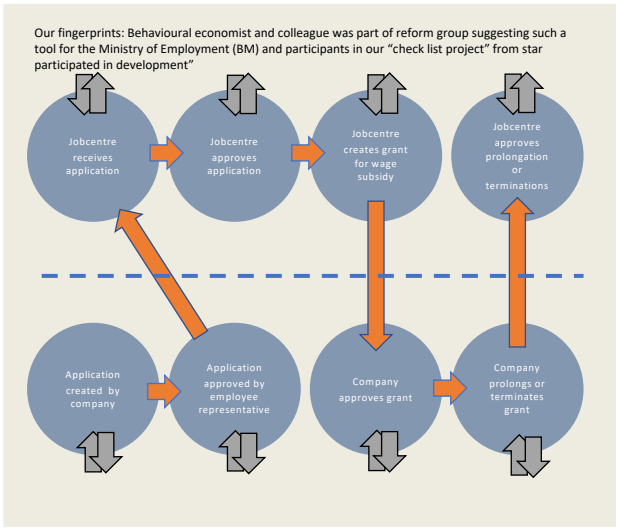
49

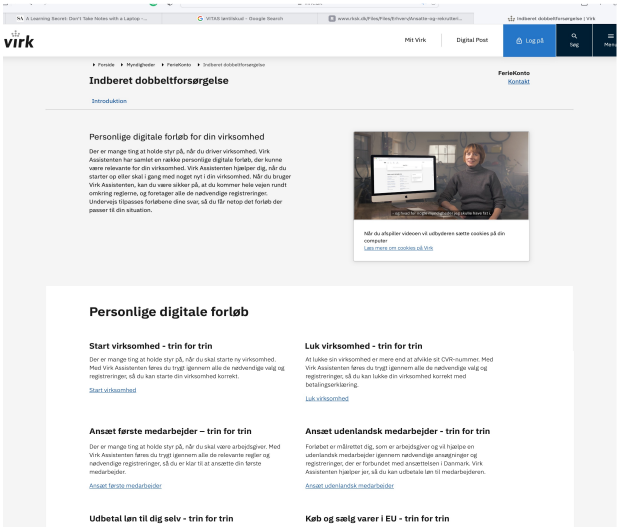

GOV.UK
Search
Home
Employing people
Recruiting and hiring
Check if someone can work in the UK
Start again
1 Does the worker have a UK passport?
No
Change this answer
2 Does the worker have a Certificate of Registration or Naturalisation as a British Citizen?
No
Change this answer
3 Is the worker:
from the EU, EEA or Switzerland
Change this answer
4 Does the worker have an EU, EEA or Swiss passport or National Identity Card or are they a named person in their parent's or child's passport?
Yes
Change this answer
The person is entitled to work in the UK.
You should make a copy of the relevant parts of the passport or the entire National Identity Card.
You don't have to do this check again.
Croatians
People from Croatia must show proof of permission to work, eg a worker authorisation document (also known as a purple registration certificate), or proof that they're exempt from this restriction.

50


virk.dk
virk
Mit Virk
Digital Post
Log på
Søg
Menu
Forside
Myndigheder
FerieKonto
Indberet dobbeltforsørgelse
Indberet dobbeltforsørgelse
FerieKonto
Kontakt
Introduktion
Personlige digitale forløb for din virksomhed
Der er mange ting at holde styr på, når du driver virksomhed. Virk Assistenten har samlet en række personlige digitale forløb, der kunne være relevante for din virksomhed. Virk Assistenten hjælper dig, når du starter op eller skal i gang med noget nyt i din virksomhed. Når du bruger Virk Assistenten, kan du være sikker på, at du kommer hele vejen rundt omkring reglerne, og foretager alle de nødvendige registreringer. Undervejs tilpasses forløbene dine svar, så du får netop det forløb der passer til din situation.
- og hvad for nogle myndigheder jeg skulle have fat i.
Når du afspiller videoen vil udbyderen sætte cookies på din computer
Læs mere om cookies på Virk
Personlige digitale forløb
Start virksomhed - trin for trin
Luk virksomhed - trin for trin


virk.dk
Personlige digitale forløb
Start virksomhed - trin for trin
Der er mange ting at holde styr på, når du skal starte ny virksomhed. Med Virk Assistenten føres du trygt igennem alle de nødvendige valg og registreringer, så du kan starte din virksomhed korrekt.
Start virksomhed
Luk virksomhed - trin for trin
At lukke sin virksomhed er mere end at afvikle sit CVR-nummer. Med Virk Assistenten føres du trygt igennem alle de nødvendige valg og registreringer, så du kan lukke din virksomhed korrekt med betalingserklæring.
Luk virksomhed
Ansæt første medarbejder – trin for trin
Der er mange ting at holde styr på, når du skal være arbejdsgiver. Med Virk Assistenten føres du trygt igennem alle de relevante regler og nødvendige registreringer, så du er klar til at ansætte din første medarbejder.
Ansæt første medarbejder
Ansæt udenlandsk medarbejder - trin for trin
Forløbet er målrettet dig, som er arbejdsgiver og vil hjælpe en udenlandsk medarbejder igennem nødvendige ansøgninger og registreringer, der er forbundet med ansættelsen i Danmark. Virk Assistenten hjælper jer, så du kan udbetale løn til medarbejderen.
Ansæt udenlandsk medarbejder
Udbetal løn til dig selv - trin for trin
At udbetale løn til dig selv er mere end lønhåndtering. Med Virk Assistenten føres du trygt igennem de relevante regler og nødvendige registreringer for at blive klar til at udbetale løn til dig selv.
Udbetal løn til dig selv
Køb og sælg varer i EU - trin for trin
Der er mange ting at holde styr på, når du vil købe eller sælge varer inden for EU. Med Virk Assistenten føres du trygt igennem de relevante regler og nødvendige registreringer for at blive klar til at købe eller sælge varer i EU.
Køb og sælg varer i EU





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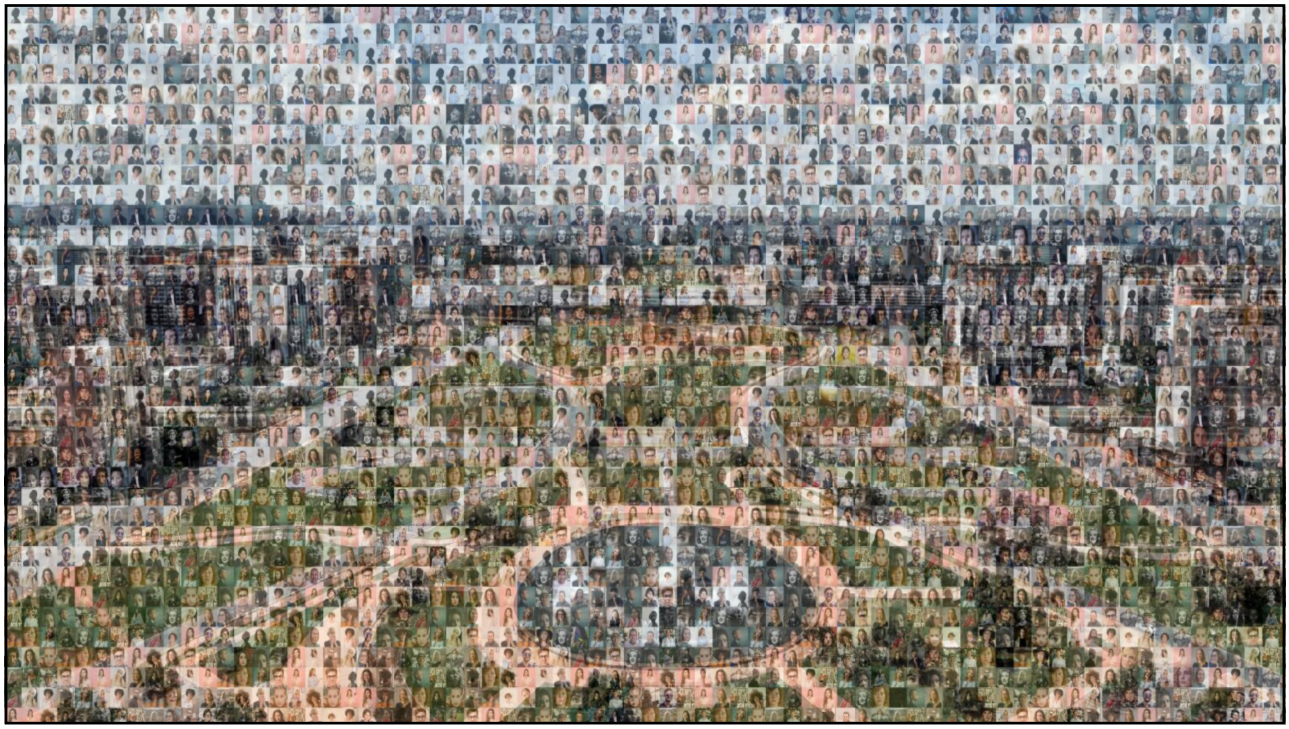

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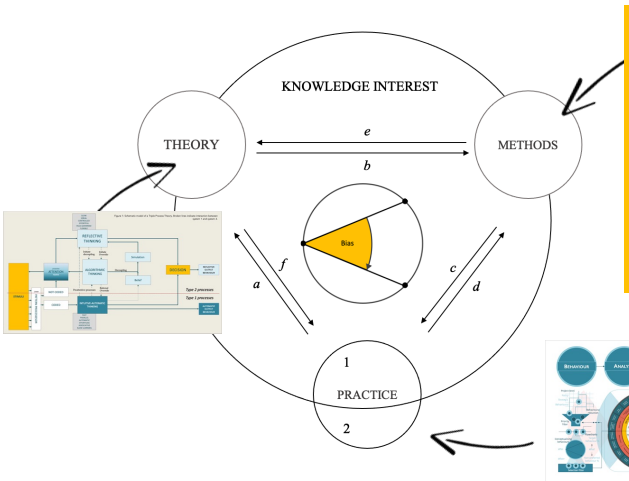

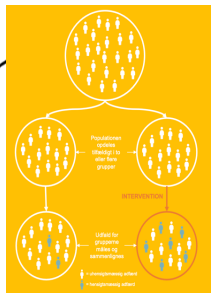

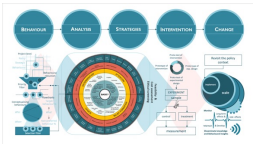

Folk psychology and public opinion

Traditional rationality based communication

Behavioural comms

Traditional rationality based economics

Behavioural economics

Traditional rationality based law

Behavioural law

... and all the other ...

... Behavioural finance, behavioural marketing, behavioural healthcare, etc.

The crisis in the rationality based paradigm and 'the behavioural turn' aka Behavioural Insights

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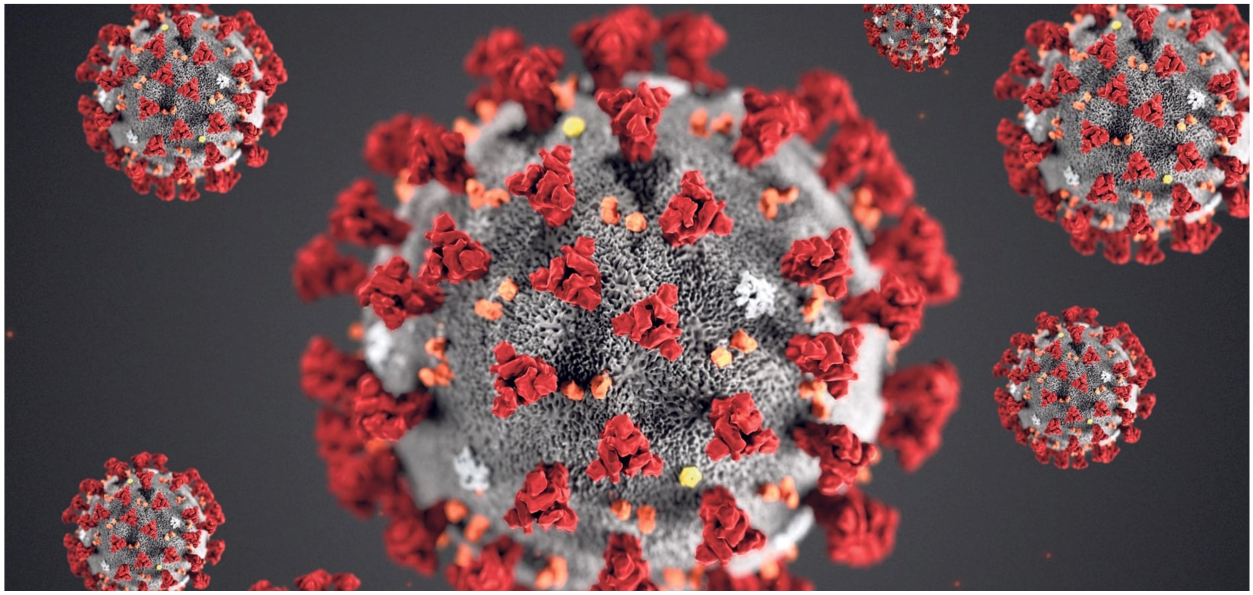
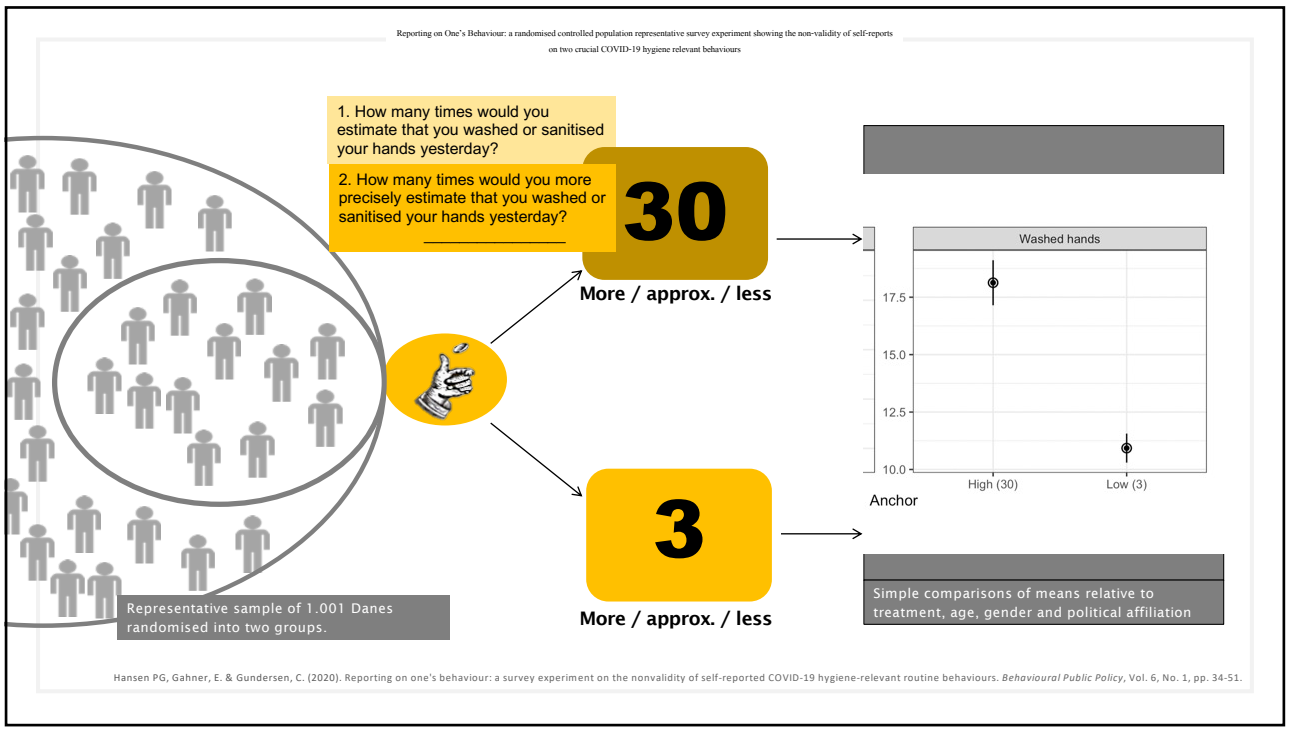
55



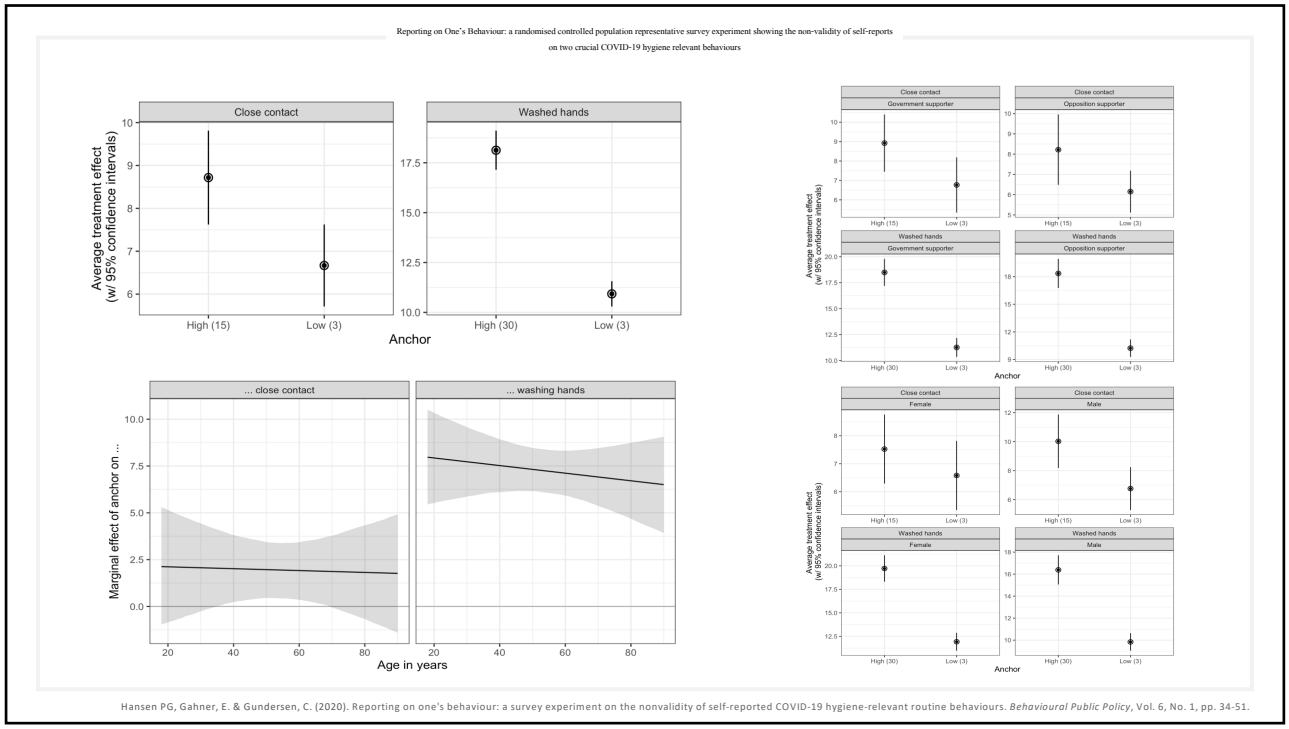
COVID-19 HOPE(LESS)

Hansen PG, Gahner, E. & Gundersen, C. (2020). **Reporting on one's behaviour: a survey experiment on the nonvalidity of self-reported COVID-19 hygiene-relevant routine behaviours.** *Behavioural Public Policy*, Vol. 6, No. 1, pp. 34-51.

56


Reporting on One's Behaviour: a randomised controlled population representative survey experiment showing the non-validity of self-reports on two crucial COVID-19 hygiene relevant behaviours
1. How many times would you estimate that you washed or sanitised your hands yesterday?
2. How many times would you more precisely estimate that you washed or sanitised your hands yesterday?
30
More / approx. / less
3
More / approx. / less
Washed hands
17.5
15.0
12.5
10.0
High (30)
Low (3)
Anchor
Representative sample of 1.001 Danes randomised into two groups.
Simple comparisons of means relative to treatment, age, gender and political affiliation
Hansen PG, Gahner, E. & Gundersen, C. (2020). Reporting on one's behaviour: a survey experiment on the nonvalidity of self-reported COVID-19 hygiene-relevant routine behaviours. Behavioural Public Policy, Vol. 6, No. 1, pp. 34-51.

58


Reporting on One's Behaviour: a randomised controlled population representative survey experiment showing the non-validity of self-reports on two crucial COVID-19 hygiene relevant behaviours
Close contact
Washed hands
Average treatment effect (w/ 95% confidence intervals)
High (15)
Low (3)
High (30)
Low (3)
Anchor
... close contact
... washing hands
Marginal effect of anchor on ...
Age in years
Close contact
Government supporter
Close contact
Opposition supporter
Washed hands
Government supporter
Washed hands
Opposition supporter
Close contact
Female
Close contact
Male
Washed hands
Female
Washed hands
Male
Hansen PG, Gahner, E. & Gundersen, C. (2020). Reporting on one's behaviour: a survey experiment on the nonvalidity of self-reported COVID-19 hygiene-relevant routine behaviours. Behavioural Public Policy, Vol. 6, No. 1, pp. 34-51.

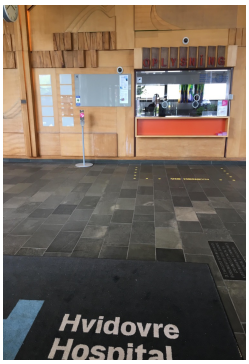
59

with Danske Regioner & Hvidovre Hospital

Improving handhygiene in Hospitals

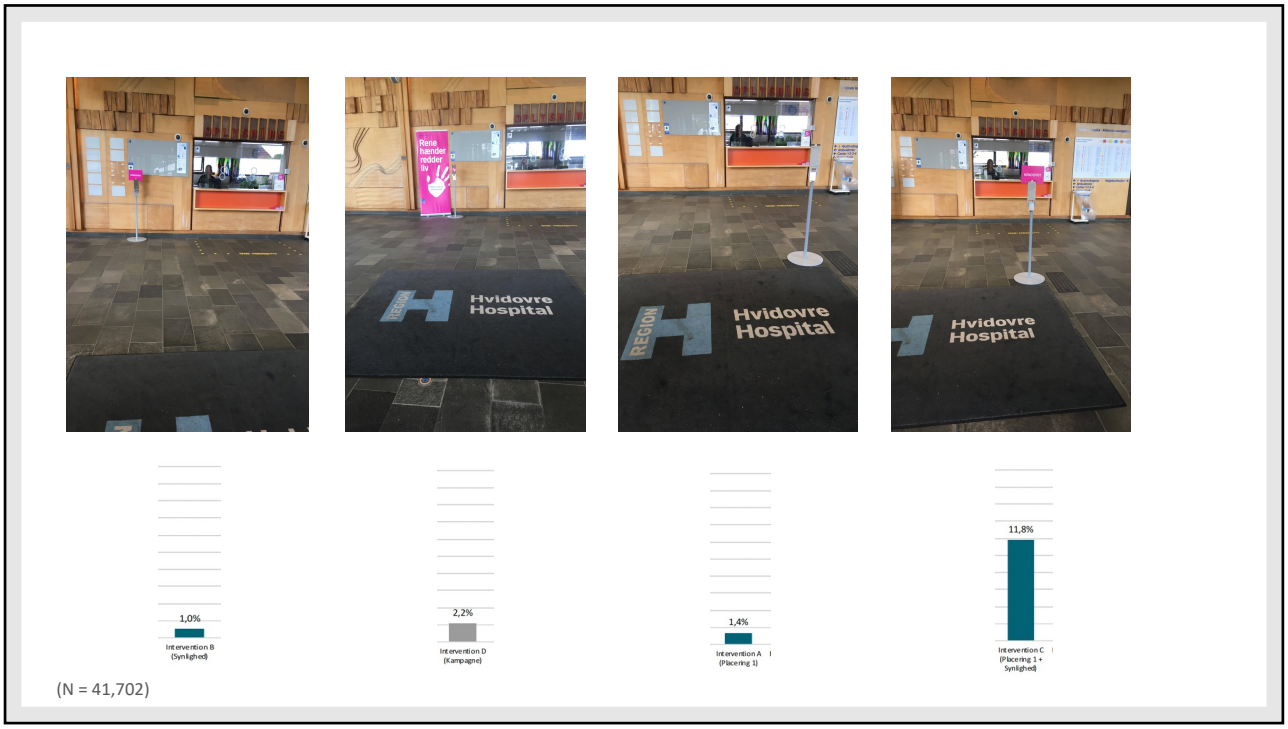
Hansen, P. G., Gahner Larsen, E., Modin, A., Gundersen, C., & Schilling, M. (2021). **Nudging hand hygiene compliance: a large-scale field experiment on hospital visitors**. *Journal of Hospital Infection*, Vol. 118, pp. 63-69.

60



(N = 41,702)

61



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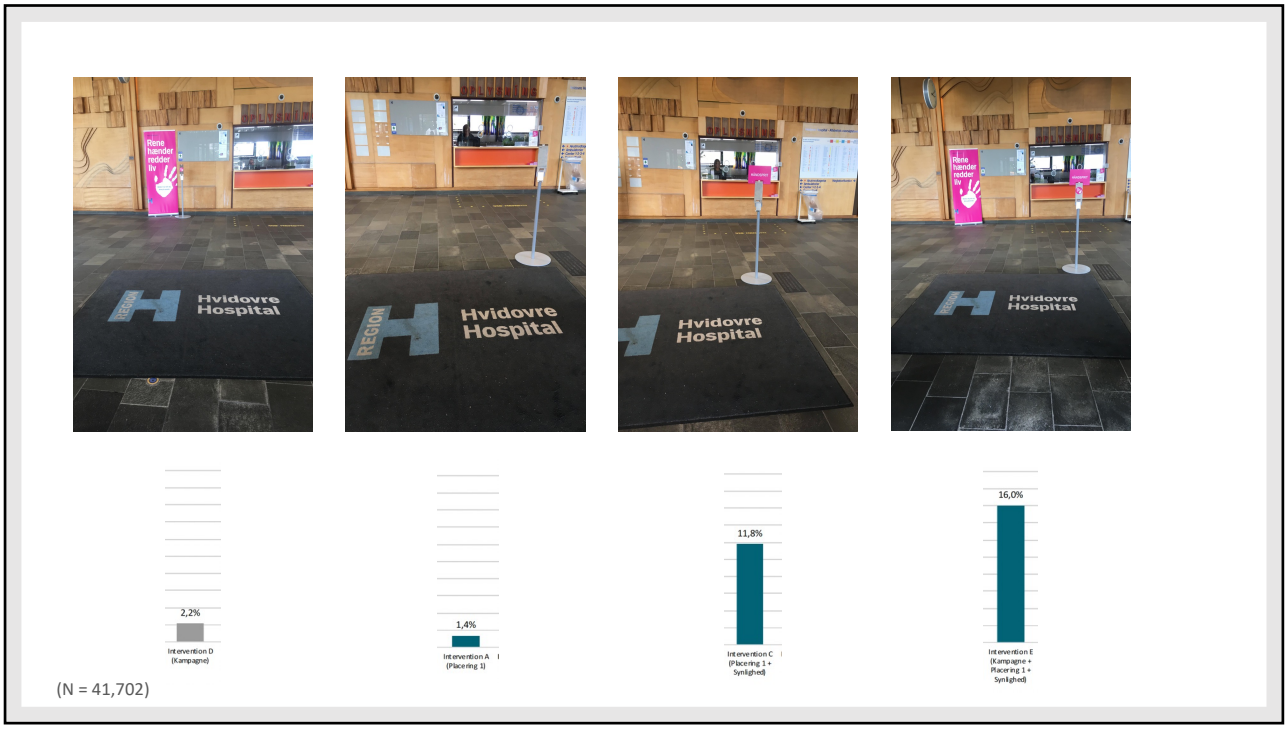

(N = 41,702)

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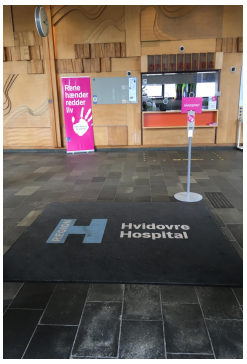

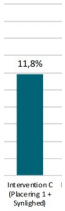

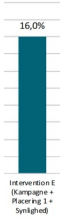

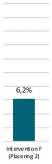

(N = 41,702)

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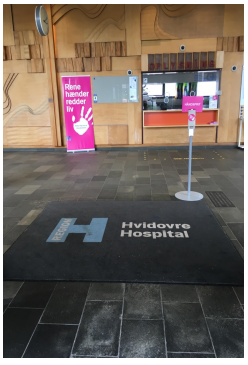

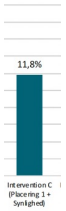

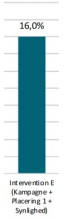

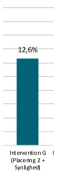

(N = 41,702)

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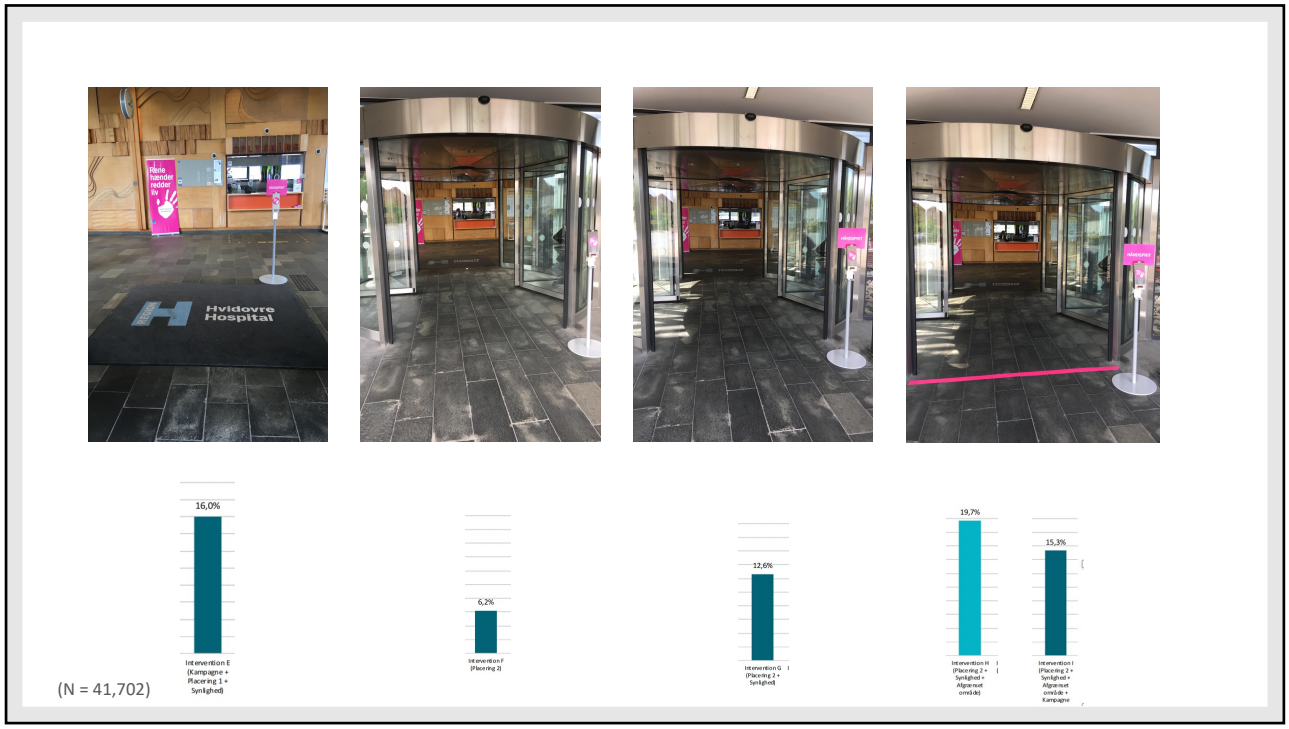

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(N = 46,435)

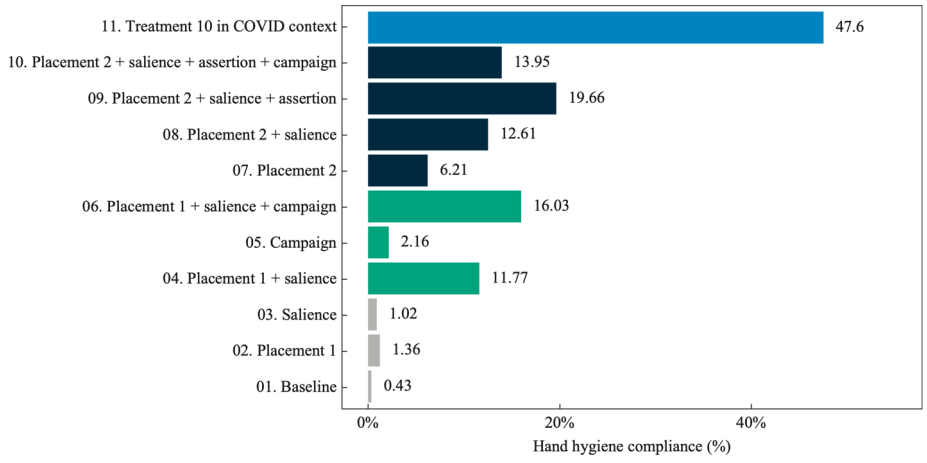

Figure 1. Percentage of people sanitizing their hands upon entering the hospital.

Hansen, P.G., Larsen, E., Modin, A., Gundersen, C., Schilling, M. (2021) Nudging hand hygiene compliance: a large-scale field experiment on hospital visitors, Journal of Hospital Infection, 2021, ISSN 0195-6701, https://doi.org/10.1016/j.jhin.2021.09.009.

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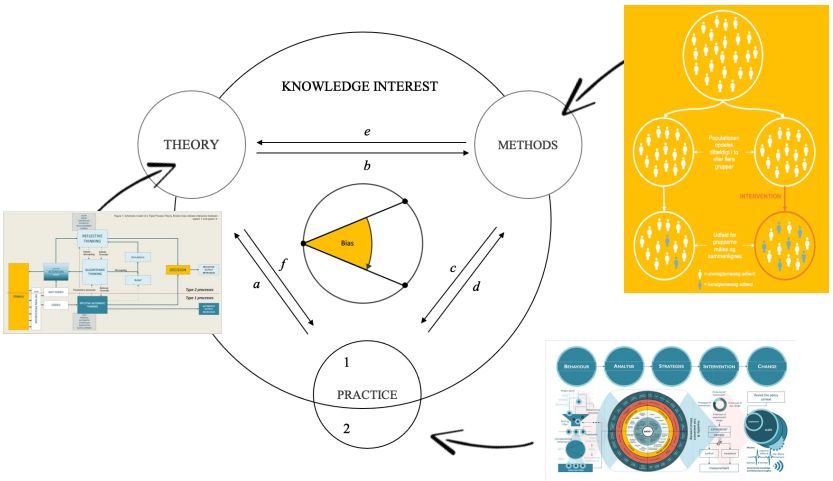

Folk psychology and public opinion

Behavioural comms

Behavioural economics

Behavioural law

… Behavioural finance, behavioural marketing, behavioural healthcare, etc.

The crisis in the rationality based paradigm and 'the behavioural turn' aka Behavioural Insights

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