

New insights and  
understanding of the  
purchasing moment

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Jacob Lagerstedt

Introduction  
&  
Overview

## WHERE WE ARE

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- \\ Austria
- \\ Belgium
- \\ Czech Republic
- \\ Denmark
- \\ Estonia
- \\ France
- \\ Finland
- \\ Germany
- \\ Italy
- \\ Latvia
- \\ Lithuania
- \\ Norway
- \\ The Netherlands
- \\ Poland
- \\ Spain
- \\ Sweden
- \\ Switzerland
- \\ United Kingdom

We operate online panels in 18 European countries and also offer traditional offline methodologies, such as: telephone interviews, personal interviews, focus groups and mystery shopping.





## What we do?

Norstat is one of the leading data collection companies in Europe– Focusing on finding the best partners and solutions for our clients depending on task

Norstat is offering panels in 18 countries as well as offline data collection in several leading European markets.

Our main focus is high-quality data collection with the most suitable method for each client.

## Today's session

// Today we are going to talk about a project conducted for one of our clients where the focus is “How to win the war of the retail shelf” The project was conducted as a study involving both behavioral data and quant data. The end client is a coffee brand.

// Norstat has been responsible for the data collection of the project where we have combined **eye-tracking** with **conjoint** with help of our two partners **Implicit Academy** and **Refina**

## Questions which we wanted to receive an answer on:

- // **Is time spent on a pack crucial?**
- // **Is certain element on pack crucial?**
- // **Is price a trigger?**
- // **How important is brand?**
- // **Placement**

## SPEAKERS

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### **Jan Nylund (Founder) Refina Information**

Refina has been around since the mid-90s and is run by **Janne Nylund**.

Refina specializes in choice market research using front-line tools and techniques (like conjoint analysis and maxdiff).

Refinas aim is to work closely and long term with our clients and partners. This in order to over time get a deep understanding of the market conditions and buyer behavior that our clients meet.



### **Magnus Linde (Founder) Manolima**

Magnus Linde is an Market Researcher and Analyst with 20+ years' experience and currently running the insight agency Manolima.

Magnus has also co-founded the Implicit Academy, a network dedicated to spread awareness and knowledge in behavioral economy, neuromarketing and implicit market research, with special focus on eye tracking, facial coding, EEG and IAT.



Magnus Linde

Implicit Academy





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Understanding

# the purchasing moment

combining eye tracking  
and conjoint analysis.

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# A Purchase Decision is the Endpoint of a Complex Process.





# A pilot study combining eye tracking and conjoint analysis

- Testing four different coffee bean packages in Sweden and Finland to understand
  - If and how position affects attention and choice
  - If and how price affects attention and choice
  - If and how brand affects attention and choice
- 400 respondents per market were invited to the survey by Norstat and asked to view eight images like this while their attention was tracked via the webcam
- Images were presented in random order and showed the product in different positions and at different price levels



54,90 kr  
450 g



74,90 kr  
450 g



59,90 kr  
400 g



49,90 kr  
450 g



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Understanding how

# ATTENTION IMPACTS CHOICE

using web cam eye tracking

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Eye tracking basically tells us three things:

# 1. What is seen?



Eye tracking basically tells us three things:

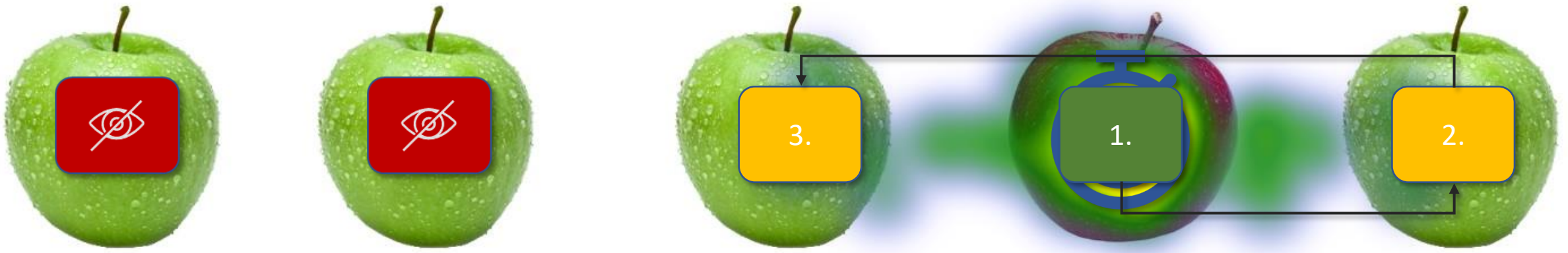
2. For how long?





Eye tracking basically tells us three things:

3. And in what order?



Source: TobiiPro

# Many different eye tracker with different capabilities and uses cases

Source: Tobii

Source: Pexels.com

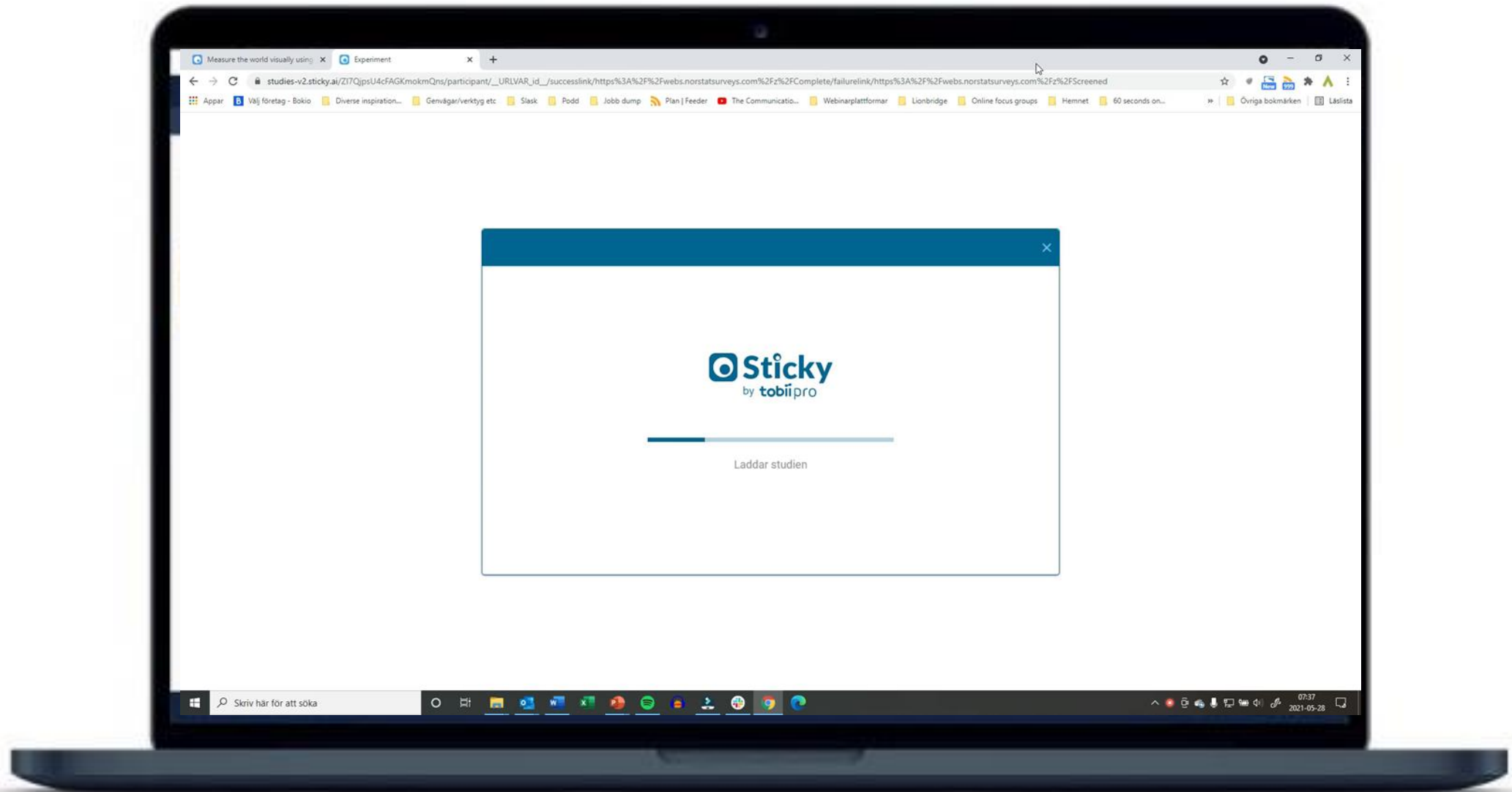
Source: TobiiPro

For this project, we wanted to go quantitative and have a geographical spread over the markets we surveyed so we opted for:

# Cloud based distributed eye tracking with technology from Sticky by Tobii Pro

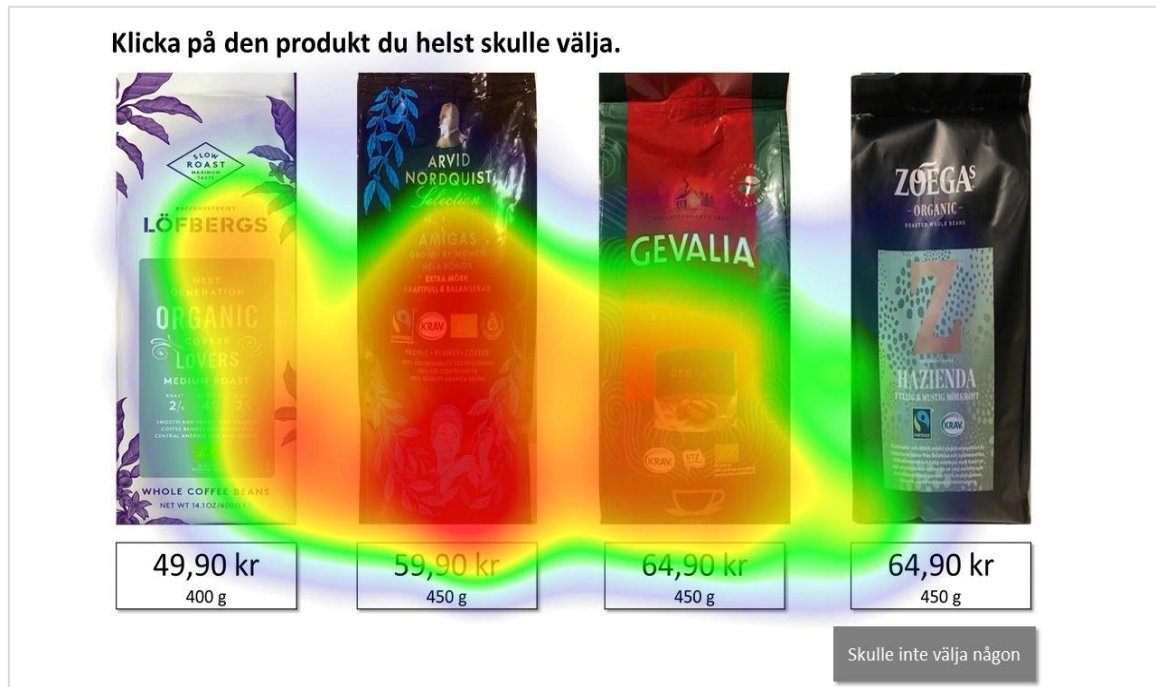


View the study from a respondent's perspective – click image to watch on YouTube:



The data we get can be visualized this way. To the left we see aggregated attention, the redder the color, the more attention that area gets. To the right we see clicks, or choices, as participants decide on what product they'd buy from this set-up

## ATTENTION



## CHOICE



Click the images to watch second-by-second visualizations on YouTube



But of course, we also get hard data – one of the things we could conclude is that deciding is nothing people dwell on for a long time.

It's a fast game!

Average time to decide

4.5 seconds



# Attention is to a large degree explained by placement

Any package will do (relatively) better in a center position

Average Earned Attention per Position



# But other factors influence too

When Arvid Nordquist brand is priced low it gets more attention even in position 4



54,90 kr  
450 g



74,90 kr  
450 g



59,90 kr  
400 g



49,90 kr  
450 g

Earns 50%  
more attention  
than position  
average

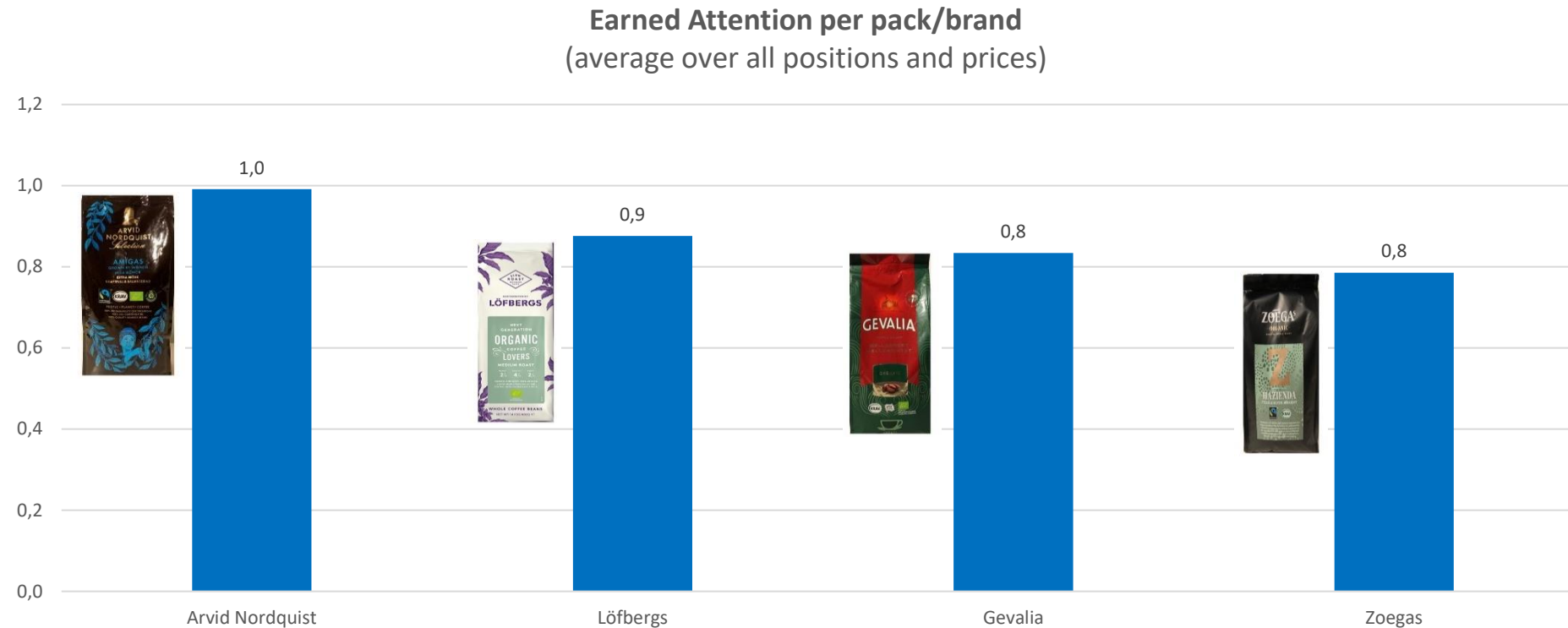
# But other factors influence too

When Zoegas brand is priced high it gets less attention even in position 2

Earns 20% less attention than position average



# Brand also influence attention to some degree



# Example from a previous study



Percentage seen

Stronger engagement w/  
package 5 than 3, 4 or 6.



7%

22%

5%



Attention is the first step to purchase.

Attention correlates with choice.



Klicka på den produkt du helst skulle välja.



Understanding how

# ELEMENTS AND ORDER IMPACTS CHOICE

with conjoint analysis



Jan Nylund

Refina



# Conjoint Design: Attributes & Levels

The conjoint design used includes 3 **attributes** (product, shelf position and price)

Each attribute has 4 levels:

- 4 coffee bean products
- 4 shelf positions (left to right)
- 4 price levels

Next is to create choice tasks in a way that measures the choice impact for each attribute and level in an unbiased and balanced way.

| Attributes |   |   |                |                    |
|------------|---|---|----------------|--------------------|
|            | Product                                     |   | Shelf position | Price SEK          |
| Level 1    | Löfbergs Organic 400 g<br>Start: 54.90      |    | 1 (Left)       | -5                 |
| Level 2    | Arvid Norquist Amigas 450 g<br>Start: 54.90 |    | 2              | 0<br>(Start price) |
| Level 3    | Gevalia 450 g<br>Start: 54.90               |   | 3              | +5                 |
| Level 4    | Zoegas 450 g<br>Start: 64.90                |  | (Right) 4      | +10                |

# Conjoint Test Set-up: 32 products on 8 shelves

Based on the conjoint design these **8 shelves** were tested, including a total of **32 products**, exposed in a random order.

Each product was exposed twice at each price level and shelf position.

And, remember, everything was monitored with Eye Tracking!





## Example Conjoint Choice (Screen Shot)

Klicka på den produkt du helst skulle välja.

“Click on the product you most likely would choose”



49,90 kr  
400 g



59,90 kr  
450 g



64,90 kr  
450 g



64,90 kr  
450 g

Skulle inte välja någon





“Would not choose any”

# Warming up: Average Choice for Attributes & Levels

Just by summing up all choices, shelf by shelf for all respondents, we get valuable information about what is driving choice of coffee beans!

Based on average choice you could roughly conclude that the overall **most** wanted product is **Arvid Norquist** in shelf **position 1,2 or 3** at **49.90 (-5)**.

On the other hand, the overall **least** wanted product is **Zoegas** in shelf **position 4** at **74.90 (+10)**

| Average Choice Shares                       |  |     |                                    |     |                                |     |
|---|--|-----|------------------------------------|-----|--------------------------------|-----|
| Product<br>(Importance: 42%)                |  |     | Shelf position<br>(Importance: 7%) |     | Price SEK<br>(Importance: 52%) |     |
| Löfbergs Organic 400 g<br>Start: 54.90      |    | 19% | 1 (Left)                           | 26% | -5                             | 41% |
| Arvid Norquist Amigas 450 g<br>Start: 54.90 |    | 40% | 2                                  | 26% | 0<br>(Start price)             | 29% |
| Gevalia 450 g<br>Start: 54.90               |   | 25% | 3                                  | 26% | +5                             | 20% |
| Zoegas 450 g<br>Start: 64.90                |  | 16% | (Right) 4                          | 22% | +10                            | 11% |

Main driver for choice is **price**. Changes in price account for **52%** of all changes in choice behavior.

The other major driver is product (42%).

Shelf position is only a minor driver (7%)



# Assumptions Underlying Conjoint Simulations

- **A perfect and fixed market (in size)...**

In the test we assume equal awareness, availability and exposure for each product. Overall market growth or decline is not measured, but can be roughly indicated when a No-buy option is included.

- **...the next purchase occasion ...**

We measure the purchase at one single occasion, not repeated purchase (loyalty). Also, in the test we assume that the product expectations at the next purchase are met, that there are no biasing positive or negative “surprises” during the buying and delivery process.

- **...with less “buying clutter” than in real life.**

In the test situation the product attention is higher than in a busy store, leading to “sharper” simulated shares that should be regarded as **potential shares**. For instance, a **price increase** simulation typically yields a **worst** case outcome while a **price decrease** simulation yields a **best** case outcome.

# About the Presented Conjoint Simulations

- We will focus on **Löfbergs Organic** in **Sweden**.
- At first a **START** simulation is defined with choice shares for the 4 products at start prices.
- Then a few **price changes** are simulated, showing choice share effects as well as price elasticities.
- After that a couple of changes in **shelf position (left to right)** are simulated.
- Finally we simulate effects on shares when focusing on those who have **spent most time** looking at the **Löfbergs product logo, middle of package** and **price tag**.

## Simulation 1 (Start)

All products are simulated at **start price** with **no impact of product shelf position**, i.e. equal position is assumed ("Middle-left" for all products in this case).





**Löfbergs** start share is **19,3% at 54.90**. Please note the high share of **Arvid Norquist** (40,0%), also at 54.90.

| DYNAMIX<br>SIMULATOR®       |   | Choice |               | Incl=1 | Product Placement |              |               |       | Price | Min   | Max   | Start |
|-----------------------------|---|--------|---------------|--------|-------------------|--------------|---------------|-------|-------|-------|-------|-------|
| Coffee Bean Product         | Product image   | Total  | Diff vs Start | START  | Left              | Middle -left | Middle -right | Right | SEK   |       |       |       |
| Löfbergs Organic 400 g      |    | 19,3%  | 0,0%          | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 | 54,90 |
| Arvid Norquist Amigas 450 g |    | 40,0%  | 0,0%          | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 | 54,90 |
| Gevalia 450 g               |   | 27,5%  | 0,0%          | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 | 54,90 |
| Zoegas 450 g                |  | 13,3%  | 0,0%          | 1      |                   | 1            |               |       | 64,90 | 59,90 | 74,90 | 64,90 |

## Simulation 2 (Price increase of Löffbergs)

When increasing the price of **Löffbergs** from 54.90 to **59.90**, the choice share decreases from 19.2% to **12,1%**.

Arvid Norquist and Gevalia compete the most with Löffbergs, i.e. gain most of Löffbergs lost shares.

| DYNAMIX<br>SIMULATOR®       |   | Choice |               | Incl=1 | Product Placement |             |              |       | Price | Min   | Max   | Start |                  |
|-----------------------------|---|--------|---------------|--------|-------------------|-------------|--------------|-------|-------|-------|-------|-------|------------------|
| Coffee Bean Product         | Product image   | Total  | Diff vs Start |        | Left              | Middle-left | Middle-right | Right | SEK   |       |       |       | Price Elasticity |
| Löffbergs Organic 400 g     |    | 12,1%  | -7,1%         | 1      |                   | 1           |              |       | 59,90 | 49,90 | 64,90 | 54,90 | 4,07             |
| Arvid Norquist Amigas 450 g |    | 43,8%  | 3,8%          | 1      |                   | 1           |              |       | 54,90 | 49,90 |       |       |                  |
| Gevalia 450 g               |   | 30,5%  | 3,0%          | 1      |                   | 1           |              |       | 54,90 | 49,90 |       |       |                  |
| Zoegas 450 g                |  | 13,6%  | 0,4%          | 1      |                   | 1           |              |       | 64,90 | 59,90 | 74,90 | 64,90 |                  |

The price elasticity is comparatively high, meaning a high risk of revenue loss. In this case a 1% price increase would potentially cause to a 4% share decrease.



### Simulation 3 (Price increase of Zoegas)





When increasing the price of **Zoegas** from 64.90 to **69.90**, the choice share decreases from 13.3% to **10.9%**.

| DYNAMIX<br>SIMULATOR®       |   | Choice |               | Incl=1 | Product Placement |              |               |       | Price | Min   | Max   | Start |                  |
|-----------------------------|---|--------|---------------|--------|-------------------|--------------|---------------|-------|-------|-------|-------|-------|------------------|
| Coffee Bean Product         | Product image   | Total  | Diff vs Start |        | Left              | Middle -left | Middle -right | Right | SEK   |       |       |       | Price Elasticity |
| Löfbergs Organic 400 g      |    | 19,8%  | 0,5%          | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 | 54,90 |                  |
| Arvid Norquist Amigas 450 g |    | 40,8%  | 0,8%          | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 |       |                  |
| Gevalia 450 g               |   | 28,6%  | 1,1%          | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 |       |                  |
| Zoegas 450 g                |  | 10,9%  | -2,4%         | 1      |                   | 1            |               |       | 69,90 | 59,90 | 74,90 | 64,90 | 2,34             |

Note: The price elasticity is considerably lower for Zoegas (2.34), than for Löfbergs (4.07).

## Simulation 4 (Price decrease of Löffbergs)





When decreasing the price of **Löffbergs** from 54.90 to **49.90**, the choice share increases from 19.2% to **26.6%**.

| DYNAMIX<br>SIMULATOR®       |   | Choice |               | Incl=1 | Product Placement |              |               |       | Price | Min   | Max   | Start | Price Elasticity |
|-----------------------------|---|--------|---------------|--------|-------------------|--------------|---------------|-------|-------|-------|-------|-------|------------------|
| Coffee Bean Product         | Product image   | Total  | Diff vs Start |        | Left              | Middle -left | Middle -right | Right | SEK   |       |       |       |                  |
| Löffbergs Organic 400 g     |    | 26,6%  | 7,4%          | 1      |                   | 1            |               |       | 49,90 | 49,90 | 64,90 | 54,90 | 4,19             |
| Arvid Norquist Amigas 450 g |    | 36,4%  | -3,6%         | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 |       |                  |
| Gevalia 450 g               |   | 24,4%  | -3,0%         | 1      |                   | 1            |               |       | 54,90 | 49,90 | 64,90 |       |                  |
| Zoegas 450 g                |  | 12,5%  | -0,8%         | 1      |                   | 1            |               |       | 64,90 | 59,90 | 74,90 | 64,90 |                  |

The price elasticity remains at a high level for Löffbergs, implicating a revenue growth potential at this lower price.





## Simulation 5 (Left position for Löffbergs)

When assuming a left shelf position for **Löffbergs** at start price, the choice share increases from 19.2% to **22.3%**.

| DYNAMIX<br>SIMULATOR®       |   | Choice |               | Incl=1 | Product Placement |              |               |       | Price |
|-----------------------------|---|--------|---------------|--------|-------------------|--------------|---------------|-------|-------|
| Coffee Bean Product         | Product image   | Total  | Diff vs Start |        | Left              | Middle -left | Middle -right | Right | SEK   |
| Löffbergs Organic 400 g     |    | 22,3%  | 3,0%          | 1      | 1                 |              |               |       | 54,90 |
| Arvid Norquist Amigas 450 g |    | 38,2%  | -1,8%         | 1      |                   | 1            |               |       | 54,90 |
| Gevalia 450 g               |   | 27,1%  | -0,4%         | 1      |                   | 1            |               |       | 54,90 |
| Zoegas 450 g                |  | 12,5%  | -0,8%         | 1      |                   | 1            |               |       | 64,90 |

## Simulation 6 (Right shelf position for Löffbergs)

When assuming a left shelf position for **Löffbergs** at start price, the choice share decreases from 19.2% to **15.7%**.





| DYNAMIX<br>SIMULATOR®       |   | Choice |               | Incl=1 | Product Placement |              |               |       | Price |
|-----------------------------|---|--------|---------------|--------|-------------------|--------------|---------------|-------|-------|
| Coffee Bean Product         | Product image   | Total  | Diff vs Start |        | Left              | Middle -left | Middle -right | Right | SEK   |
| Löffbergs Organic 400 g     |    | 15,7%  | -3,5%         | 1      |                   |              |               | 1     | 54,90 |
| Arvid Norquist Amigas 450 g |    | 41,1%  | 1,1%          | 1      |                   | 1            |               |       | 54,90 |
| Gevalia 450 g               |   | 30,7%  | 3,3%          | 1      |                   | 1            |               |       | 54,90 |
| Zoegas 450 g                |  | 12,5%  | -0,8%         | 1      |                   | 1            |               |       | 64,90 |



## Simulation 7 (Effects of time spent on logo)

In this simulation we return to the starting point, but include only the **50% of the sample** that spent most time looking at the **Löfbergs logo**.





In this “logo attention group” the Löfbergs choice share is **22.6%** (vs 19.2% for the total sample).

| DYNAMIX<br>SIMULATOR®                |   | Choice |                  | Incl=1 | Product Placement |                 |                  |       | ET Time Spent<br>(1=top 50%) |                   |                | Price<br>SEK |
|--------------------------------------|---|--------|------------------|--------|-------------------|-----------------|------------------|-------|------------------------------|-------------------|----------------|--------------|
| Coffee Bean<br>Product               | Product<br>image  | Total  | Diff vs<br>Start |        | Left              | Middle-<br>left | Middle-<br>right | Right | Logo                         | Middle<br>of pack | Price<br>label |              |
| Löfbergs<br>Organic<br>400 g         |    | 22,6%  | 3,3%             | 1      |                   | 1               |                  |       | 1                            |                   |                | 54,90        |
| Arvid<br>Norquist<br>Amigas<br>450 g |    | 39,1%  | -0,9%            | 1      |                   | 1               |                  |       |                              |                   |                | 54,90        |
| Gevalia<br>450 g                     |   | 29,2%  | 1,8%             | 1      |                   | 1               |                  |       |                              |                   |                | 54,90        |
| Zoegas<br>450 g                      |  | 9,0%   | -4,3%            | 1      |                   | 1               |                  |       |                              |                   |                | 64,90        |

## Simulation 8 (Effects of time spent on middle of pack)

Still at the starting point, but including only the **50% of the sample** that spent most time looking at the **Löfbergs package (middle part)**.





In this “pack attention group” the Löfbergs choice share is **26.8%** (vs 19.2% for the total sample).

| DYNAMIX<br>SIMULATOR®                |   | Choice |                  | Incl=1 | Product Placement |                 |                  |       | ET Time Spent<br>(1=top 50%) |                   |                | Price |
|--------------------------------------|---|--------|------------------|--------|-------------------|-----------------|------------------|-------|------------------------------|-------------------|----------------|-------|
| Coffee Bean<br>Product               | Product<br>image  | Total  | Diff vs<br>Start |        | Left              | Middle-<br>left | Middle-<br>right | Right | Logo                         | Middle<br>of pack | Price<br>label | SEK   |
| Löfbergs<br>Organic<br>400 g         |    | 26,8%  | 7,6%             | 1      |                   | 1               |                  |       |                              | 1                 |                | 54,90 |
| Arvid<br>Norquist<br>Amigas<br>450 g |    | 40,0%  | 0,0%             | 1      |                   | 1               |                  |       |                              |                   |                | 54,90 |
| Gevalia<br>450 g                     |   | 24,6%  | -2,8%            | 1      |                   | 1               |                  |       |                              |                   |                | 54,90 |
| Zoegas<br>450 g                      |  | 8,5%   | -4,8%            | 1      |                   | 1               |                  |       |                              |                   |                | 64,90 |

## Simulation 9 (Effects of time spent on price label)

Back at the starting point again, but this time including only the **50% of the sample** that spent most time looking at the **Löfbergs price label**.

In this “price attention group” the Löfbergs choice share is **21.7%** (vs 19.2% for the total sample).

| DYNAMIX<br>SIMULATOR®                |   | Choice |                  | Incl=1 | Product Placement |                 |                  |       | ET Time Spent<br>(1=top 50%) |                   |                | Price |
|--------------------------------------|---|--------|------------------|--------|-------------------|-----------------|------------------|-------|------------------------------|-------------------|----------------|-------|
| Coffee Bean<br>Product               | Product<br>image  | Total  | Diff vs<br>Start |        | Left              | Middle-<br>left | Middle-<br>right | Right | Logo                         | Middle<br>of pack | Price<br>label | SEK   |
| Löfbergs<br>Organic<br>400 g         |    | 21,7%  | 2,4%             | 1      |                   | 1               |                  |       |                              |                   | 1              | 54,90 |
| Arvid<br>Norquist<br>Amigas<br>450 g |    | 42,8%  | 2,8%             | 1      |                   | 1               |                  |       |                              |                   |                | 54,90 |
| Gevalia<br>450 g                     |   | 25,4%  | -2,1%            | 1      |                   | 1               |                  |       |                              |                   |                | 54,90 |
| Zoegas<br>450 g                      |  | 10,1%  | -3,1%            | 1      |                   | 1               |                  |       |                              |                   |                | 64,90 |

# Bonus: Conjoint Set-up with Average Attention





So, what happens if we use the current conjoint design, but replace choice with **attention** as target variable?

**A GREAT DEAL** is happening actually:

**Product** drives **choice (42%)** much more than attention (15%)!

**Price** drives **choice (52%)** much more than attention (27%)!

**Shelf position** drives **attention (58%)** much more than choice (7%)!

| Average Attention                           |   |     |                                     |     |                                |     |
|---|---|-----|-------------------------------------|-----|--------------------------------|-----|
| Product<br>(Importance: 15%)                |   |     | Shelf position<br>(Importance: 58%) |     | Price SEK<br>(Importance: 27%) |     |
| Löfbergs Organic 400 g<br>Start: 54.90      |    | 25% | 1 (Left)                            | 19% | -5                             | 29% |
| Arvid Norquist Amigas 450 g<br>Start: 54.90 |    | 26% | 2                                   | 32% | 0<br>(Start price)             | 25% |
| Gevalia 450 g<br>Start: 54.90               |   | 27% | 3                                   | 32% | +5                             | 25% |
| Zoegas 450 g<br>Start: 64.90                |  | 22% | (Right) 4                           | 17% | +10                            | 22% |



# SUMMARY

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Summing up

what we  
learned and

what are next steps

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# SUMMARY

- ✓ **ATTENTION IS A LOT LIKE REAL ESTATE:**  
It's a lot about location, location, location...
- ✓ **ATTENTION CAN BE "HACKED":**  
Position, pricing, brand, design all affect attention.
- ✓ **ATTENTION INFLUENCES CHOICE:**  
But product and price weighs heavier.
- **COMBINING EYE TRACKING AND CONJOINT OFFERS NEW PERSPECTIVES:**  
First analysis, just scratching at the surface – next steps include deeper analysis, new test with broader scope and more variables as well as other categories. Stay tuned!

# THANK YOU FOR ATTENDING!

If you would like more information, please get in touch with us:

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