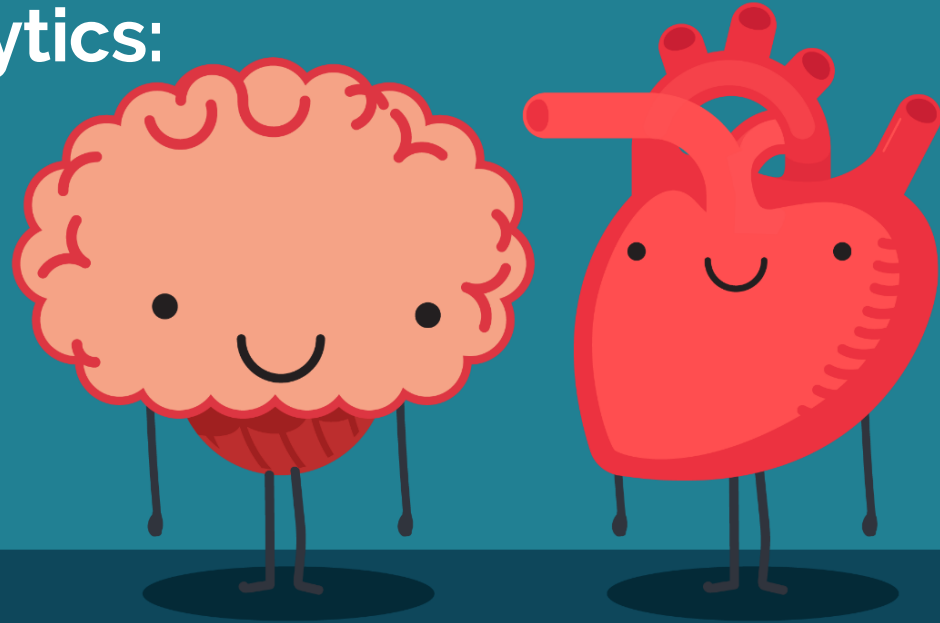




Johnson & Johnson

## Applied AI in Voice Analytics:

*Can smart innovations  
save us from stress?*



Judith Suttrup



# Decision making continues to change

Understand how people make decisions today - online & offline



E-Commerce



Net  
Revenue  
Management



Brand  
Communications



Advanced  
Analytics



Product  
Innovation



Decision  
Journey  
Mapping



**Judith Suttrup**  
Senior Research Manager



BOSTON CONSULTING GROUP



McKinsey&Company



NETFLIX

PHILIPS

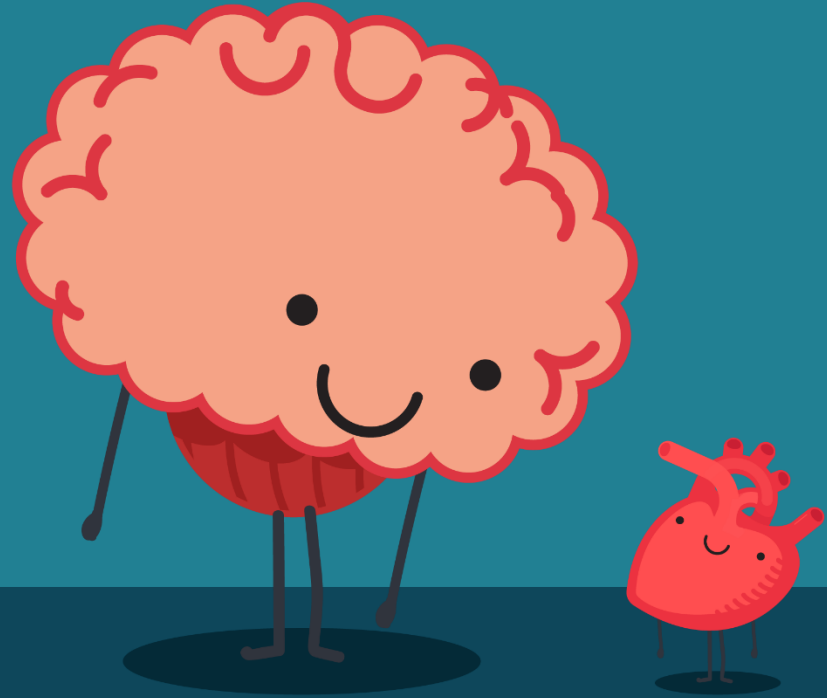


Uber



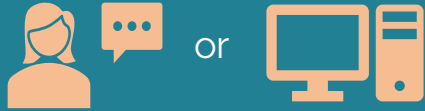
# Overcoming NPD insights challenges

- Consumers' emotions can be key to predict market potential
- Quantification of emotions vital for informed decision making
- Bias to overstate interest



# How to quantify emotions

## Traditional Approaches



### Qual

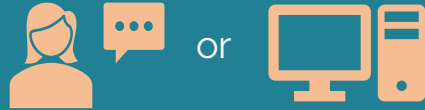
- + Uncover emotions
- Results can't easily be scaled

### Quant

- + Robust results of stated emotions
- Lack the depth of emotions
- Overstated interest in innovations

# How to quantify emotions

## Traditional Approaches



### Qual

- + Uncover emotions
- Results can't easily be scaled

### Quant

- + Robust results of stated emotions
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## NEW Hybrid Approach

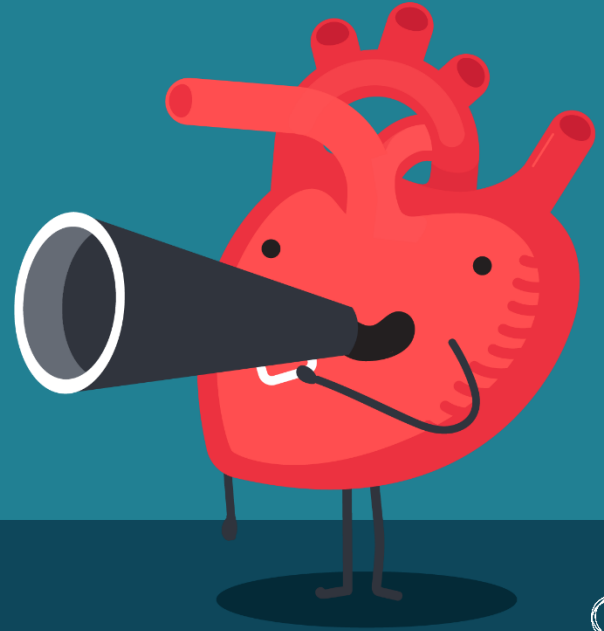


### Qual + Quant + AI

- + Analyze **'HOW'** people communicate their needs, attitudes and interest
- + Combines best of Qual + Quant techniques
- + Better uncover implicit emotions for more effective innovation strategies

# Introducing a new insights approach

- AI tool to detect **emotions from voice**
- Based on **subconscious** reactions
- Applications in
  - Health science, smart assistants, call centers
  - Market research?

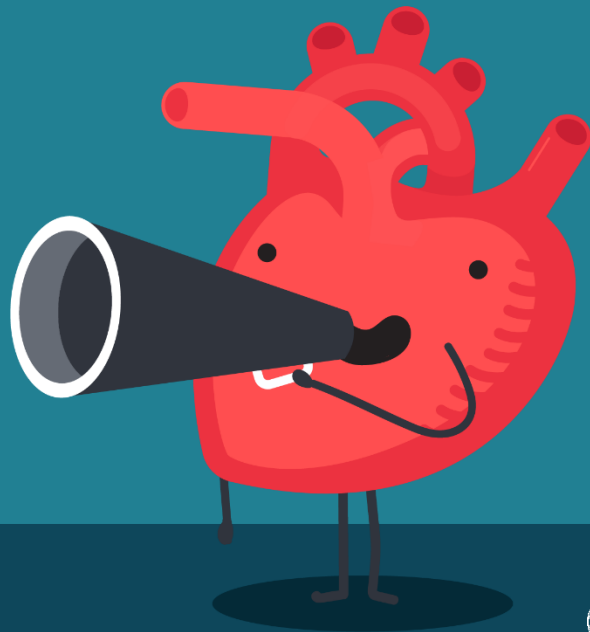




*“We are constantly investigating ways of gathering deep human understanding using both explicit and implicit tools.”*

Sofia Jorman

Consumer Science Manager, Global R&D operations,  
Johnson & Johnson Consumer Division SelfCare



# Putting the approach to the test

## Step 1: Identify an unmet need

### Stress as a modern epidemic

- **80%** of UK consumers report medium to high stress levels
- **54%** place more importance on mental health



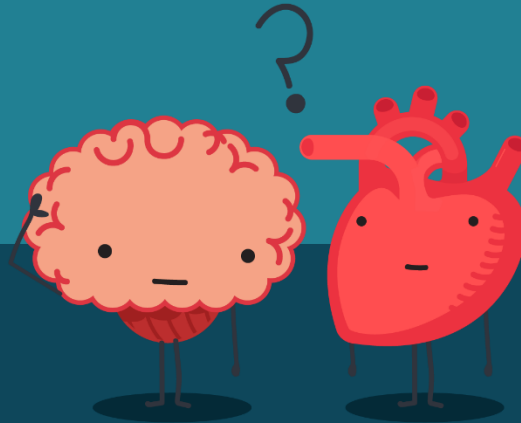


# Space for innovation in stress management

**High need** to receive **more help** in managing stress

**80%** of UK consumers open to a **technological solution**

- Needs to work on demand and not disturb daily activities
- Stress monitoring & regulation device / app preferred



# Putting the approach to the test

## Step 2: A SKIM product design

### *SmartHealthBand*

Healthy lifestyle device

- Health parameter tracking
- Stress Management Advice
- Electronic Stress Relief



# Putting the approach to the test

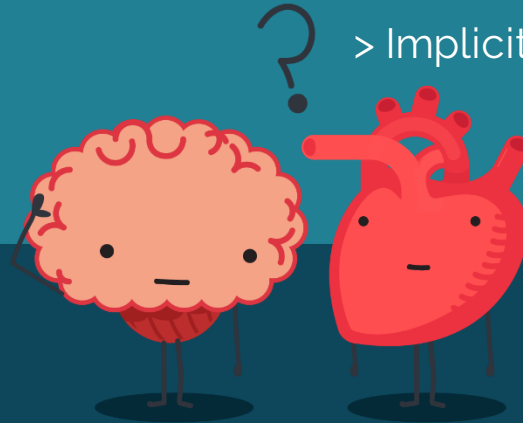
## Step 3: A case study

### Tool assessment

- > Quantify initial emotional reaction?
- > Emotion segmentation?
- > Overcome bias to overstate interest?
- > New insights?

### Pilot hybrid study

- > n=201 respondents (UK)
- > Audio recordings
- > Content analysis: **WHAT** was said
- > Implicit emotion analysis: **HOW** was it said





# The Content Analysis

## Stated emotions

**87%** express interest in the *SmartHealthBand*

- > People describe the impact stress has on their life
- > Concept is seen as a solution that can genuinely help them





# The Implicit Emotion Analysis

## 1. Types of emotions



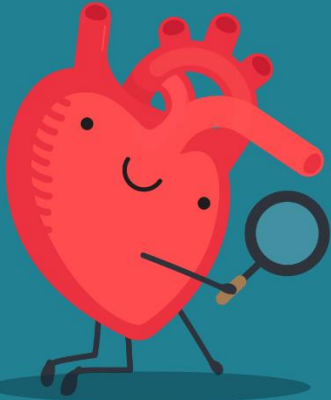
### Problem!

- > resentment
- > grief
- > suffering



### Solution!

- > euphoria
- > compassion
- > relief



## Segmentation Insights



Male



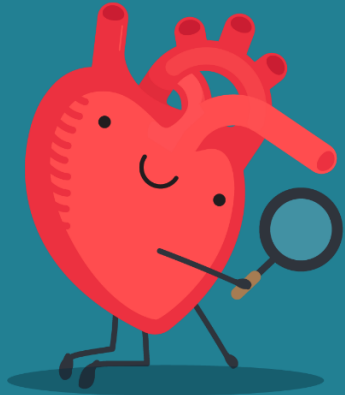
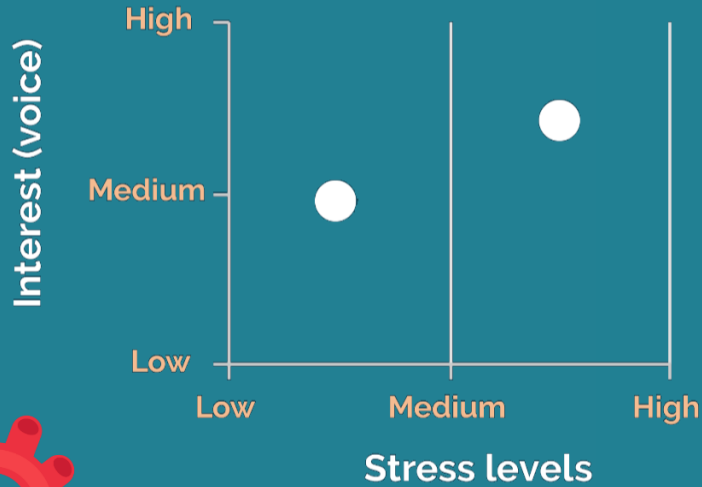
Female

> Deep, unique emotional understanding – at scale to **validate human need with greater confidence**

> Difference in emotional gender drivers to **inform communication strategies**

# The Implicit Emotion Analysis

## 2. Scaled Interest levels

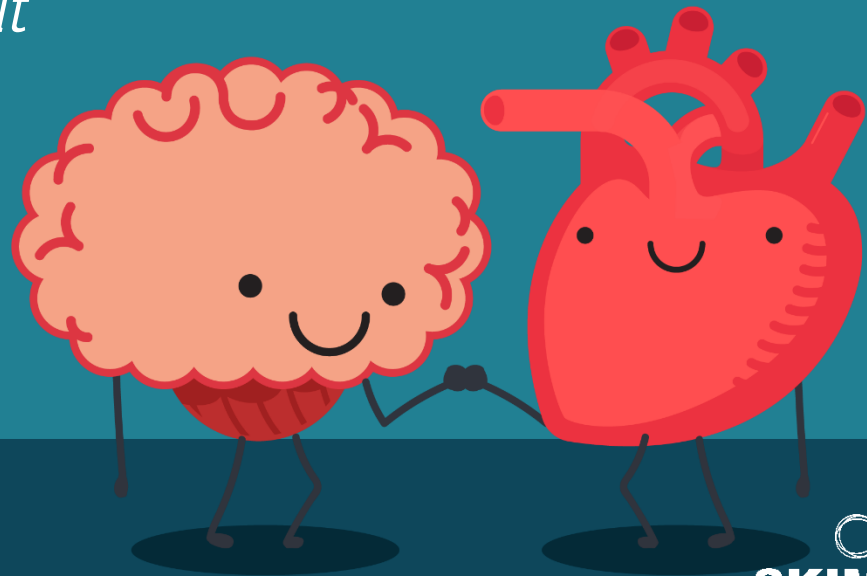


- > Interest level correlates with stress level
- > Interest based on voice: 75% (87% stated!)

> More realistic of product interest to inform future innovation platform



*“Using the voice analysis tool for this research piece helped us not only to learn more about stress, it also allowed to evaluate an innovative methodology.”*



Sofia Jorman

Consumer Science Manager, Global R&D operations,  
Johnson & Johnson Consumer Division SelfCare



# Better decision making throughout the product lifecycle

## Early-stage

Comprehensive market understanding

Development

## Launch

Forecasting, comms & digital solutions to achieve rapid uptake and set a high-growth trajectory

Launch

## Long-term growth

Sophisticated pricing, brand communications and digital solutions to maintain market share and slow down declines

Growth

Maturity

Innovation

Retention



# Smart digital solutions

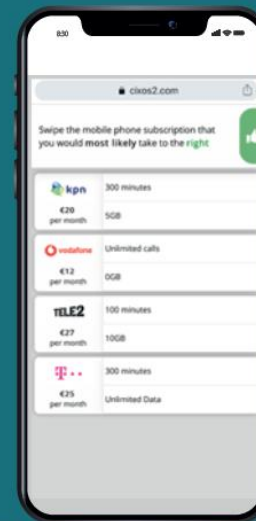
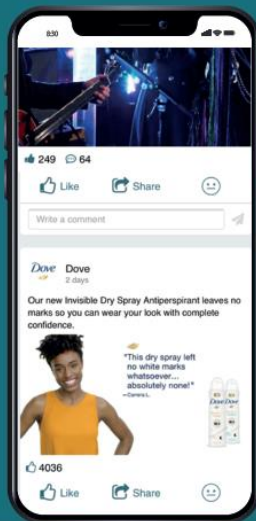
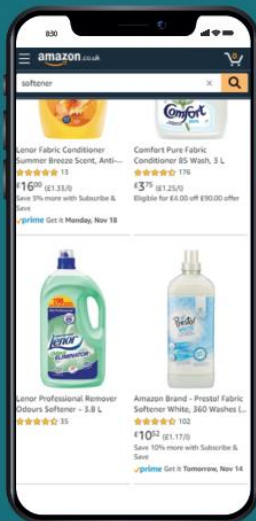
UNSPOKEN®

DigiShop

DigiFeed

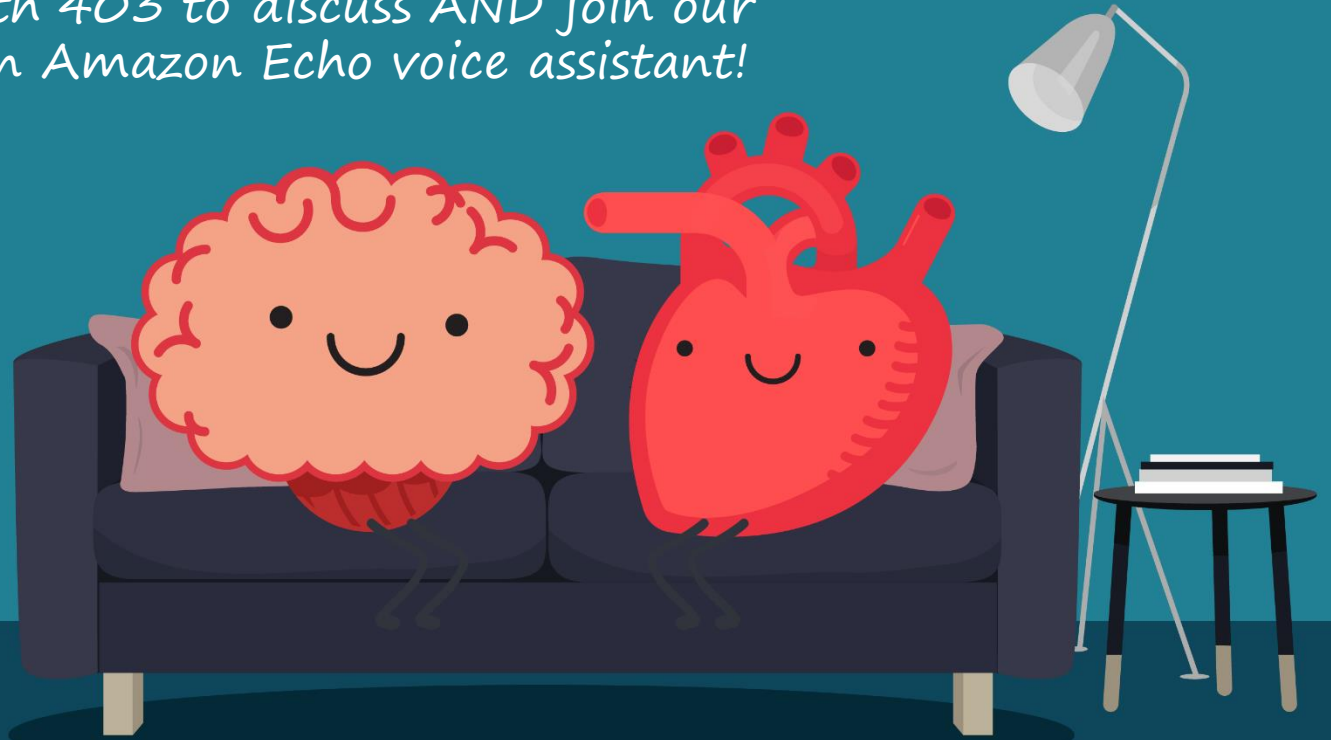
Price Explorer

Mobile Conjoint



# Interested in more AI, voice and digital solutions?

*Visit us at booth 403 to discuss AND join our raffle to win an Amazon Echo voice assistant!*



*Judith Suttrup*  
[j.suttrup@skimgroup.com](mailto:j.suttrup@skimgroup.com)