Neuromarketing
Overview of methods and techniques

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OVERVIEW

- Why do we need neuromarketing methods?
  Implicit research methods in addition to surveys and interviews

- Short evaluation of neuromarketing tools
  - What is it
  - how is it used
  - what is its value?

- Concluding remarks
WORDS AND ACTIONS NOT ALWAYS THE SAME

Marketing tries to understand consumer thinking in order to influence their decision making.

So when these consumers are at the point of sale they will be choosing their product.

Yet, it turns out at the cash register that consumer choices are not the simple outcome of a planned process.

So where is the information gap?

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LIMITS TO EXPLICIT RESEARCH TECHNIQUES

Surveys, interviews, focus groups

- VARYING MOTIVATION TO BE HONEST OR TO COMPLY
- SUBOPTIMAL TOOLS FOR FULL EXPRESSION
- INABILITY TO ARTICULATE FEELINGS
- UNAWARENESS OF OWN DRIVERS AND FEELINGS
- DIFFICULTY TO RECALL ROUTINE ACTIVITIES

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In post-session interview of a study around beauty routine, respondents described their routines correctly, but observations revealed their self reports accounted for 25-45% of the actual routine.
What we currently measure with traditional approaches: 10% (Conscious Mind - Explicit, Effortful, Infrequent, Logical, Facts, Aware).

What we can measure with neuroscience: 90% (Subconscious Mind - Implicit, Automatic, Frequent, Emotional, Feelings, Unaware).
<table>
<thead>
<tr>
<th>Traditional View</th>
<th>Emerging View (from cognitive science)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Think</td>
<td>Feel</td>
</tr>
<tr>
<td>Act</td>
<td>Act</td>
</tr>
<tr>
<td>Feel</td>
<td>Think (rationalize our decisions)</td>
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If this is true, our goal is to *persuade*. If this is true, our goal is to *engage emotion*. 
CHANGING THEORIES AROUND CONSUMER DECISION MAKING

“We are not thinking machines that feel, we are feeling machines that think.”

(Descartes’ error, Damasio)

Consumer Insight professionals are more and more focused on the emotional experiences of consumers in relation to brands, communication, products and services etc.....
THE CONSUMER INSIGHTS PROFESSIONAL’S TOOLBOX HAS GROWN

Explicit research
We ask

Implicit research

We measure

We observe

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NEUROSCIENCE RESEARCH

Central nervous system
Brain & Spinal cord

Peripheral Nervous system
Branching out connecting all other parts of the body

EEG, MRI, fNIRS

HR, HRV

Skin conductance

EMG – Muscle activity

Pupillometry

Etc...
MRI, EEG and fNIRS

✓ Communication research (advertisements, commercials, pictures of products/prototypes)
✓ Website navigation research
EEG data

A complex mix of signals
Eye tracking – visual attention

- Communication research (advertisements, commercials, pictures of products/prototypes))
- Website navigation research
Eye tracking – gaze plot

Fixation

Saccades
Eye tracking – heat maps and areas of interest

BUT
How does it make them feel?
Psychophysiology – heart rate variability, galvanic skin response

- Communication research (advertisements, commercials, pictures of products/prototypes))
- Website navigation research
Psychophysiology – Empatica wristband

Heart rate (variability), galvanic skin response

- Communication research
- Website navigation research
- Product evaluation
- Product use
- Health claims

In natural environments
FACIAL EXPRESSION ANALYSIS

- Automated execution of FACS (Paul Ekman)
- The 6 basic emotions plus neutral state
- Valence & intensity values
- Individual Action Units

- Communication research
- Website navigation research
- Product evaluation
- Product use

In natural environments

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BEHAVIORAL SCIENCE

what is behavior?
- Activities
- Interactions
- Verbal behavior
- Body posture
- Facial Expressions

- Communication research
- Website navigation research
- Product evaluation
- Product use
- Habits/routines
- Health claims

In natural environments

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COMBINING METHODS – PIECES TO THE PUZZLE