Maximizing Retail POP-out with Eye Tracking

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Much of Retailing is Visual

- Marketing stimuli such as brands, packages, logos, POP-display and advertising, and feature ads, carry visual equity.
  - Human information processing is largely visual and visual attention impacts memory, attitudes and behaviour.
- Visual features are key in category management and shopper marketing.
  - How do we measure and evaluate what people look at?
- Commercial visual clutter is high.
  - Do these marketing stimuli capture and retain attention sufficiently?
  - How can we improve visual marketing?
Cool Graphs: What do people look at on a shelf?
EYE MOVEMENT RESEARCH FOR MARKETING EFFECTIVENESS

- Almost 100 year History in Marketing (Nixon 1924)!
- Used by manufacturers such as P&G, Unilever, Kraft foods, and retailers such as Target and Walmart.
- Providers such as PRS (research) and Tobii (equipment).
- Results have great potential to
  - challenge common knowledge,
  - have actionable implications for retailing.
- However, much research still stops short of providing “cool” heat maps of gaze patterns.
EYE TRACKING AROUND 1900:
DODGE’S FALLING PLATE CAMERA

Involves a camera, cardboard, knitting needles, a pendulum, and two bicycle pumps

Manufactured by: Spindler & Hoyer, Göttingen: 375 DM
**Why Do We Move Our Eyes?**

**Eye movements:**
- Saccades (30msec)
- Fixations (300msec)

- Less than 1% of what is in our visual field we see clearly!
- We make about 150,000 eye movements a day
- About 1½ waking hours each day we see nothing at all!
- Over 30 regions in the human brain process visual information
Clutter and reduced attention spans cause many brands on the shelf to go unnoticed, or receive merely a single fixation!
Retail Applications of Eye Tracking (1)

- **Store experience**
  - How do shoppers navigate the store?
  - What shelves and brands are missed?
  - What is the relative effect of touch points?

- **Shelf visibility**
  - What is the effect of location on the shelf?
  - How to achieve brand salience and pop-out?
  - How effective are in- and out-of store factors?

- **POS exposure**
  - Which POS promotions are seen and missed?
  - What is the effectiveness of overhead displays?
  - Are end-cap displays seen and products picked up?

Source: http://www.prsresearch.com/
Retail Applications of Eye Tracking (2)

- Online shopping
  - What is the effectiveness of packaging?
  - Do ratings and recommendations work?
  - Do users look at banner ads?

- Packaging
  - What colors, textures and logo’s work?
  - Are new products more visible?
  - Do copycats confuse consumers?

- FSI
  - How to make a brand salient and pop-out?
  - What is the best design of FSI?
  - What is the effect of clutter?

Source: http://www.prsresearch.com/
MODERN EYE TRACKING EQUIPMENT

TOBII SYSTEM X1

TOBII MOBILE SYSTEM

Source: www.tobii.com
Eye Tracking Around 1960
Mobile In Store Eye-Tracking
Characterizing **unplanned purchases**
- What types of shoppers consider products they do not plan to purchase and which product categories are considered?

**Planogram design**
- What is the effect of facings and shelf position on attention and choice?

Managing **brand salience** on the shelf
- How can we differentiate the visual salience of brands and SKUs?

**Optimal design of Free Standing Inserts**
- How can we design feature ads to make them attract more consumer attention and improve sales?

What are **short-term effects of online display advertising**
- How do packshot, colors and contrast help findability?

When are **copycats** visually too close?
- Can we come up with metrics to identify closeness of copycats?
**Characterizing Unplanned Consideration and Purchase**

- Categories that are more often receive unplanned consideration are more often **hedonic and promoted; complementarities between categories exist.**

- **When considering products unplanned shoppers**
  - make more product touches,
  - stand farther from the shelf,
  - are less likely to look at coupons/in-store circulars.

- Unplanned considerations are **less likely to result in purchase** and occur later in the shopping trip.

- Shoppers who make **unplanned purchases** look at fewer shelf displays and **stand closer** to the shelf.

*Source: Hui, Huang, Suher, Inman JMR 2013*
NUMBER OF FACINGS AFFECTS ATTENTION AND BRAND EVALUATION:
- Doubling the number of facings increases noting the brand by 28%, reexamination by 35%, and choice and consideration by 10%.

SHELF LOCATION HAS STRONG EFFECTS:
- The top shelf position increased noting the brand by 17% and choice by 20%.
- The horizontal center position increases noting by 22% and choice by 17%.

MUCH OF THESE EFFECTS ON CONSIDERATION AND CHOICE ARE CAUSED BY INCREASED ATTENTION; PRIOR USAGE OF THE BRAND ALSO HAS STRONG ATTENTION EFFECTS.

Source: Chandon, Hutchinson, Bradlow, Young, 2009
IMPROVING BRAND SALIENCE ON THE SHELF: IN-STORE AND OUT-OF-STORE EFFECTS

- Visual differentiation of brands and SKUs improves findability
- Similarity of private labels and national brands hurts findability
- About 2/3 of visual salience of packages on the shelf is caused by in-store factors, 1/3 is caused by out-of-store factors

Source: Van Der Lans, Pieters, Wedel, 2008
• Ad layout can be **optimized**: smaller pictorial, larger brand and price
• **Win-win** situation for manufacturers and retailers!
• **Attention affects sales**, and explains the effects of **feature ad size** (21%) and the **number of ads/page** on sales (-16%, for a 100% increase)

*Sources: Pieters, Wedel, Zhang 2007; Zhang, Wedel, Pieters 2008*
SEARCH BENEFITS OF ONLINE ADVERTISING

- Online display ads improve short term findability of brands
- Displaying a visual pack-shot in the online ad is key
- Colors and contrast need to be judiciously used

- Online ads can be targeted to specific audiences/moments
- But, click-through rates are low

Source: Van der Lans, Wedel, Pieters 2014
TESTING VISUAL COPYCATS

Copycat confusion is pervasive and occurs on short exposures -- grab & go shopping

- The similarities in **global color** and even more **global texture** affect copycat confusion in the (triangle) task
- **CCM metric** provides a three-tiered copycat alert system:
  - Copy-Alert, Copy-Warning, Copy-Safe

<table>
<thead>
<tr>
<th>Category</th>
<th>Leading Brand</th>
<th>Experimental Copycat</th>
<th>Market Copycat</th>
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<tbody>
<tr>
<td>Honey</td>
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<tr>
<td>Canned Noodle</td>
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</table>

**CC-metric > 0.9**

*Source: Satomura, Wedel, Pieters 2014*
**Eye Tracking: The Next Epoch**

- **Eye-tracking is effective for the evaluation of visual retailing**, and provides unique data on how consumers process information on packages, brands, websites, ads and shelves. **What is next?**

**Integration:**
- Facial Recognition of emotional expressions, pupil, blink-rates,…
- Computers, billboards, kiosks, smart-TVs, smart-phones, shelf-talkers, display, anywhere in-store?
- Companies such as Google, Sticky, Umoove

**Applications:**
- Eye-control of information and manipulation
- Gaze-contingent provision of information

**Challenges:**
- Costs/benefits of implementation
- Crunching really-really big data
- Dealing with the ethics