Using the Science of Choice to Sell ENERGY STAR® Lighting

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Science of Choice
Ice cream social with 86 nutritional science experts

- Half of experts
  - Medium bowl
  - Medium ice cream scoop

- Other half of experts
  - Large bowl
  - Large ice cream scoop

Choice architecture matters

Ice cream social with 86 nutritional science experts

- Half of experts
  - Medium bowl
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- Other half of experts
  - Large bowl
  - Large ice cream scoop

Ate 53% more ice cream

We are all of two minds

- **The Thinker (System 2)**
  - Self Aware
  - Slow
  - Effortful

- **The Doer (System 1)**
  - Automatic
  - Fast
  - Effortless

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Which system do you think buys the light bulbs?

The Thinker

The Doer

or

Every day we make **200** decisions related just to food.

75% of in-store purchase decisions are made at point of purchase.

In **2 to 7** seconds.

Most decisions are made by the Doer.
What factors most influence the Doer?
Situational factors

DECISION

Least effort option

And many more

Visual cues/messages

Perceived value

Familiarity and emotional associations

What we see other people doing

Number of options offered
Which brings us to choice architectures

Choice architecture
- The collection of situational factors that shape most decisions
- Preserves autonomy
- But guides most people to a particular option

Tools for shaping a choice architecture

Least effort option
Defaults

And many more

Visual cues/messages
Sticky communication

Familiarity and emotional associations

Perceived value
Contrast effect

What we see other people doing

Number of options offered
Limited options
Choice Architectures in Residential Lighting
Not one, but two choices

- **Decision to purchase** the efficient lamp
- **Decision to install** the efficient lamp
What do you do when a light bulb burns out?
87% of households in CT had stored bulbs

More than 90% of households intended to use them as replacements

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>STORED</th>
<th>INSTALLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incandescent and Halogen</td>
<td>59%</td>
<td>69%</td>
</tr>
<tr>
<td>Incandescent</td>
<td>51%</td>
<td>66%</td>
</tr>
<tr>
<td>Halogen</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>CFL</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>All Others</td>
<td>13%</td>
<td>3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Notes: Totals may not sum up to 100% due to rounding.

Conclusion 1:

If you want to see continued growth in socket saturation, make sure stored lamps are efficient.
What are the current retail choice architectures shaping light bulbs purchases?
Newer Home Improvement Store Layout
Temporary Display Table
Which is best?

Can’t say with certainty; full category sales data are not available.
Annual CFL Imports (Millions)

Source: D+R International's Residential Lighting Market Profile - 2012
Factors Outside of Store

- High-level corporate commitment (CEO, hardware buyer, lighting merchant)
- Ads in Walmart print publications
- Major GE print advertising campaign to support the Walmart push
- PR: Fast Company, Oprah promote CFLs
- Oil - $70/barrel
- Hurricane Katrina
<table>
<thead>
<tr>
<th>In-Store Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRICE</strong></td>
</tr>
<tr>
<td>$7.58 (3-pack) ~$2.50/lamp</td>
</tr>
<tr>
<td>$9.58 (3-pack) ~$3.20/lamp</td>
</tr>
<tr>
<td><strong>PACKAGE DESIGN</strong></td>
</tr>
<tr>
<td>Cleaner, less-cluttered packaging</td>
</tr>
<tr>
<td>&quot;energy smart&quot; branding</td>
</tr>
<tr>
<td>“Saves $38 in energy”</td>
</tr>
<tr>
<td><strong>ON-SHELF PROMOTION</strong></td>
</tr>
<tr>
<td>Visual display: CFL vs. incandescent with savings messaging</td>
</tr>
<tr>
<td>CFLs at eye level, corresponding incandescents on low shelves</td>
</tr>
<tr>
<td>Stocked together AND with incandescents – 40% more shelf-space!</td>
</tr>
<tr>
<td><strong>ON-SHELF PROMOTION</strong></td>
</tr>
<tr>
<td>On “Catch the Season” wall</td>
</tr>
<tr>
<td>In-aisle displays in grocery</td>
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</tbody>
</table>
Tools for shaping a choice architecture

- Least effort option
- Defaults

- Visual cues/messages
- Sticky communication

- Familiarity and emotional associations

- Perceived value
- Contrast effect

- What we see other people doing

- Number of options offered
- Limited options

- And many more
## In-Store Changes

<table>
<thead>
<tr>
<th>PRICE</th>
<th>New $7.58 (3-pack) ~$2.50/lamp</th>
<th>Original $9.58 (3-pack) ~$3.20/lamp</th>
<th>Contrast effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACKAGE DESIGN</td>
<td>Cleaner, less-cluttered packaging</td>
<td>&quot;energy smart&quot; branding</td>
<td>Sticky (simple)</td>
</tr>
<tr>
<td></td>
<td>&quot;Saves $38 in energy&quot;</td>
<td></td>
<td>Sticky (concrete, credible)</td>
</tr>
<tr>
<td>ON-SHELF PROMOTION</td>
<td>Visual display CFL vs. incandescent with savings messaging</td>
<td>Reduced risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFLs at eye level, corresponding incandescents on low shelves</td>
<td>Default for specifically planned purchase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stocked together AND with incandescents – 40% more shelf-space!</td>
<td>Lower effort/improved odds</td>
<td></td>
</tr>
<tr>
<td>OFF-SHELF PROMOTION</td>
<td>On “Catch the Season” wall</td>
<td>Increased exposure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In-aisle displays in grocery</td>
<td>Default and limited options favor reminder and impulse purchases</td>
<td></td>
</tr>
</tbody>
</table>
Impact of off-shelf placement

Warehouse Format Store - Floor Plan

SALES LIFT
Endcap: 37.3%

Impact of off-shelf placement

Warehouse Format Store - Floor Plan

SALES LIFT
Endcap: 37.3%
Fenceline: 111%

Impact of off-shelf placement

Warehouse Format Store - Floor Plan

SALES LIFT
Endcap: 37.3%
Fenceline: 111%
Aisle Pallets: 242%

Increased exposures
Defaults
Limited choice
Contrast effect
Sticky communication

Why limited choice?
<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>MANY</th>
<th>FEWER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>n=</td>
<td>143</td>
<td>103</td>
</tr>
</tbody>
</table>

Other tools to consider
Anchoring

85%

![Chart showing purchase quantity (units) vs. discount level with 85% indicates an increase in purchase quantity with anchoring.

- Full Price:
  - No Anchor: 1.4
  - Anchor: 2.6

- 20% Discount:
  - No Anchor: 2.6
  - Anchor: 3.0

- 40% Discount:
  - No Anchor: 3.0
  - Anchor: 3.4

Legend:
- No Anchor ("Buy some for your freezer")
- Anchor ("Buy 18 for your freezer")
Anchoring

![Graph showing the effect of anchoring on purchase quantity. The graph compares purchase quantities at full price, 20% discount, and 40% discount with and without an anchor. The anchor 

- No Anchor ("Buy some for your freezer")
- Anchor ("Buy 18 for your freezer")

The graph illustrates that the anchor significantly increases purchase quantity, with a 48% increase at 20% discount compared to 85% without an anchor.](image-url)
Anchoring

![Graph showing purchase quantity with discount levels and anchoring effects.]

85%  48%  18%

Discount Level

○ No Anchor ("Buy some for your freezer")  ○ Anchor ("Buy 18 for your freezer")

Note: Signage featuring the indicated message was placed at point of purchase.
Source: D&R International’s Residential Lighting Market Profile-2012, Figure 37
Tools for shaping a choice architecture

- Least effort option
  Defaults

- And many more
  Anchoring
  Increased exposures

- Visual cues/messages
  Sticky communication

- Perceived value
  Contrast effect

- Number of options offered
  Limited options
$64K$ question: which system buys the LEDs?
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