Learning to Like?
Effect of Exposure

Presented by: Cindy Beeren
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Agenda

• Liking to Foods
• Fruits & Vegetables
• Novelty & Familiarity
• Food Neophobia
• Salt Reduction
Liking to Foods

• Innate likes & dislikes
  • Sweet
  • Sour(?) & Bitter

• Genetic sources
  • Sensitivity

• Experience
  • Cultural
  • Socioeconomic
Exposure to Fruits & Vegetables (1)

(Busick et al., 2008)
Exposure to Vegetables (2)

(Wardle et al., 2004)

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<thead>
<tr>
<th>Control</th>
<th>Training Exposure</th>
<th>Nutritional Information</th>
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<tbody>
<tr>
<td></td>
<td>Tasting game</td>
<td></td>
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<td></td>
<td>Consumption target vegetable</td>
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<td>Advice after 2 weeks</td>
<td>Taste target veg 14 days</td>
<td>5 a day + leaflet</td>
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Means Intake (g) Target Vegetable (Raw data, prior statistical analysis to transform for skewed distribution)
Repeated Exposure

(Zandstra et al., 2004)

Increases certainty of safety & identity

Increases feeling of boredom
Novel Drinks

(Sulmont-Rossé et al., 2008)

Apple & Orange Blossom
Melon & Anise
Tamarind Juice
Apple & Verbena
Familiar Foods

(Hetherington et al., 2002)
• Aversion to trying new foods
• Influenced by various factors
• 3 groups:
  • Neophilic
  • Neutral
  • Neophobic
• Classification using the Food Neophobia Scale (FNS) (Pliner and Hobden, 1992)
Food Neophobia – Adults vs Kids

Histograms showing neophobia in adults and children

**Food neophobia in children**

N = 107  
Mean = 30.9

**Food neophobia in adults**

N = 69  
Mean = 21.7

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Food Neophobia & Product Info

(Tuorila et al., 1994)

Neophobics
Neophillics

No Info
Product names

Descriptions & Use

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## Children vs. Adults

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<th>Familiar</th>
<th>Novel</th>
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<tr>
<td>Simple</td>
<td>3x</td>
<td>3x</td>
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<tr>
<td>Complex</td>
<td>3x</td>
<td>3x</td>
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[Image of cups with different colors and children working at a table]

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Gradual Reduction - Salt

- Using change in preference by exposure
- Rate and degree dependent on food type
- Greater reductions in foods with higher initial content
- Adjustment period 6 wks – 6 months
• Common purchase of fruits and vegetables at home likely to increase liking of these foods by children

• Exposure to vegetables liked moderately-low increases liking and intake

• Unfamiliar drinks were liked more after repeated exposure

• Liking towards bread & butter (staple foods) remains similar after exposure

• Liking towards chocolate (highly liked, less frequent eaten food) decreased with exposure
Conclusions

• Verbal information could enhance acceptability towards novel foods

• Children with low food neophobia gave higher acceptability scores than those with high food neophobia before and after continued exposure

• Changes in preference induced by exposure can be applied to reduce salt contents in our foods
References

Blay, M.Y. and Beeren, C.J.M. (2007), Adults versus Children; Differences in Perception of Food Sensory Attributes, Leatherhead Food Research Forum Report 916


Thank you for your time

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