Implicit and Explicit Risk Perception, Affect, and Trust: An Investigation of Food “Traffic Lights”.

Tony McCarthy, Calvin Burns, & Matthew Revie.

The slides include some animations / transitions ("Normal" presentation mode only)

View in "Notes Page" presentation view to see the text summaries that accompany each slide
Time constraints
Complex nutrition labels

**Nutrition Facts**

<table>
<thead>
<tr>
<th>Serving Size: 1 cup (228g)</th>
<th>Servings Per Container 2</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories 250</th>
<th>Calories from Fat 110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat 12g</td>
<td>18%</td>
<td>5% or less is low</td>
</tr>
<tr>
<td>Saturated Fat 3g</td>
<td>15%</td>
<td>20% or more is high</td>
</tr>
<tr>
<td>Trans Fat 3g</td>
<td>15%</td>
<td>20% or more is high</td>
</tr>
<tr>
<td>Cholesterol 30mg</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Sodium 470mg</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Potassium 700mg</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Total Carbohydrate 31g</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Dietary Fiber 6g</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Sugars 5g</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Protein 5g</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Start here
Check calories
Quick guide to % DV
Limit these
Get enough of these

**Footnote**

*Percent Daily Values are based on a 2,000 calorie diet. Daily Values may be higher or lower depending on your calorie needs.

**Nutrition Information**

- **Energy**: 246kJ / 819kJ
- **Protein**: 0.8g / 2.6g
- **Fat, Total**: 5.7g / 19.0g
- **Saturated Fat**: 4.0g / 13.4g
- **Trans Fat**: 0.03g / 0.1g
- **Cholesterol**: 20mg / 66.6mg
- **Carbohydrate**: 1.2g / 4.1g
- **Sodium**: 10mg / 32mg
- **Calcium**: 35.1mg / 117mg
- **Potassium**: 45.6mg / 151mg

1. **Serving Size**
2. **Servings Unit**
3. **Calories**
4. **Protein**
5. **Fat, Total**
6. **Sodium**
7. **Calcium**
8. **Potassium**
Food “traffic lights”

30g serving with 150ml semi-skimmed milk

kJ/kcal: 338/169
FAT: 2.5g (8.5%)
SAT FAT: 0.4g (1.7%)
SUGAR: 32.7g (18.1%)
SALT: 0g (0%)

% of an adult’s GDA

Typical values per 100g: Energy 1428 kJ, 338 kcal
Food “traffic lights”

<table>
<thead>
<tr>
<th></th>
<th>Energy</th>
<th>Fat</th>
<th>Saturates</th>
<th>Sugars</th>
<th>Salt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1356 kJ</strong></td>
<td>27g</td>
<td>6.3g</td>
<td>&lt;1%</td>
<td>0g</td>
<td>1.2g</td>
</tr>
<tr>
<td><strong>324 kcal</strong></td>
<td>16%</td>
<td>39%</td>
<td>32%</td>
<td>&lt;1%</td>
<td>20%</td>
</tr>
</tbody>
</table>

**smoked mackerel fillets**
Study conditions

Group 1
Participants viewed images **WITHOUT** “traffic lights”

Group 2
Participants viewed images **WITH** “traffic lights”
Explicit measures (survey)

Mackerel WITH “traffic lights” rated significantly **HIGHER RISK**

Carbonara WITH “traffic lights” rated significantly **HIGHER RISK**
Implicit measures (priming task)

Mackerel WITH “traffic lights” scored significantly HIGHER RISK in priming task.
### Risk / Affect correlations

<table>
<thead>
<tr>
<th></th>
<th>Explicit measure (survey)</th>
<th>Implicit measure (priming task)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WITH</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“traffic lights”</td>
<td>Moderate to Strong (rho = -0.596)</td>
<td>Low to Moderate (rho = -0.257)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WITHOUT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“traffic lights”</td>
<td>Low to Moderate (rho = -0.275)</td>
<td>No Correlation (rho = 0.078)</td>
</tr>
</tbody>
</table>

All significant correlations show that **HIGH RISK** is associated with **NEGATIVE AFFECT**, and **LOW RISK** is associated with **POSITIVE AFFECT**.
Conference Aim A

Risk Information vs. Benefit Information
Conference Aim B

Affect Heuristic

Trust and Risk Perception

Sample and Population
Conference Aim C

Miscommunication is Evident

Government Policy for Food “Traffic Lights”