Psychology of food waste

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Newcastle: Nutrition, Food Choice and Food Waste
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Late 20th Century developed world

- Epidemiological revolution: longer life and death from degenerative diseases: shift to long-term consequences
- Food surplus
- Extraordinary range of food choices
- Development of super-foods (e.g. chocolate)
- No work needed to attain choices
- Massive amounts of risk information
- No training in dealing with risks/benefits
Empathy

- Stalin
Contagion
Toilet to tap
Limited Capacity
Height
4 ft 11 in
Height
5 ft 9 in
Medical research

Food industry

Government

Media

Public

Nutrition advisers
The Progress of Science

Lay Model

Actual Events

Understanding

Time (years)
Cholesterol, sugar, antioxidants
Google n gram

- cholesterol
- sucrose
- antioxidants

1980
**Figure 1.** RRs for coronary outcomes in prospective cohort studies of dietary fatty acid intake.

<table>
<thead>
<tr>
<th>Dietary Fatty Acid Intake</th>
<th>Studies, n</th>
<th>Participants, n</th>
<th>Events, n</th>
<th>RR (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total saturated fatty acids</td>
<td>20</td>
<td>283,963</td>
<td>10,518</td>
<td>1.02 (0.97–1.07)</td>
</tr>
<tr>
<td>Total monounsaturated fatty acids</td>
<td>9</td>
<td>143,985</td>
<td>6,020</td>
<td>0.99 (0.89–1.09)</td>
</tr>
<tr>
<td>Total ω-3 fatty acids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>α-Linolenic</td>
<td>7</td>
<td>154,338</td>
<td>6,615</td>
<td>0.99 (0.86–1.14)</td>
</tr>
<tr>
<td>Total long-chain ω-3</td>
<td>16</td>
<td>422,071</td>
<td>8,313</td>
<td>0.93 (0.84–1.02)</td>
</tr>
<tr>
<td>Total ω-6 fatty acids</td>
<td>6</td>
<td>169,935</td>
<td>5,884</td>
<td>1.01 (0.96–1.07)</td>
</tr>
<tr>
<td>Total trans fatty acids</td>
<td>5</td>
<td>155,270</td>
<td>4,662</td>
<td>1.16 (1.06–1.27)</td>
</tr>
</tbody>
</table>

Size of the data marker is proportional to the inverse of the variance of the RR. RR = relative risk.

* Pooled estimate based on random-effects meta-analysis. Corresponding forest plots, $I^2$ estimates, and pooled RRs based on fixed-effects meta-analysis are provided in Supplement 1, available at www.annals.org.
Nudges (Thaler & Sunstein)

• Changing the environment
Schematics: Spoons/Tongs, Manipulation A

With Sydney Scott et al.
La rue n'est pas un crottoir

Un peu de respect
Singapore
Autocratic
Democracy
The longer view
Cut food waste

Be humble

Labels: calories

McDonald’s and salad: visual consumption
Food choice

- Availability (amnesics)
- Cost
- Taste
- Convenience
- Health
## Supermarket food portions

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Carrefour</th>
<th>Acme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yogurt (modal)</td>
<td>125g</td>
<td>227g</td>
</tr>
<tr>
<td>Fresh fruit (mean,4 types)</td>
<td>431g</td>
<td>553g</td>
</tr>
<tr>
<td>Coca cola (modal)</td>
<td>330ml</td>
<td>500ml</td>
</tr>
</tbody>
</table>
## Supermarket non-food portions

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Carrefour</th>
<th>Acme</th>
</tr>
</thead>
<tbody>
<tr>
<td>toothpaste (modal, ml)</td>
<td>75</td>
<td>170</td>
</tr>
<tr>
<td>toilet paper (mean, sq cm)</td>
<td>121</td>
<td>117</td>
</tr>
<tr>
<td>Cat food (modal, g)</td>
<td>100</td>
<td>85</td>
</tr>
</tbody>
</table>
Government versus Industry initiation

• Let the free market do it (organic, fat free, calorie free)

• Smaller portion sizes
Changing behavior

- Automate- habit seat belt
- Change selection set
- Incentivize
- Create a like or dislike
- Moralize
- Embed with meaning
Bottled water
Original
Grand Cru
Spring Water
Not from concentrate
Dehydrated: just add water!
Things to do

- Nudges: change environment, not people
- Promote recycled water
- Make it easier or the alternative harder (salad bar)
- Refrigerator shallower
- Free public transportation
- Smaller portion size
• Vote Democratic
• Merge with Canada
• Promote consumption of more plant foods
• Promote insects as human food
END