Insight into the mind of the consumer: understanding motivations and barriers to change

Monique Raats
m.raats@surrey.ac.uk
m.raats@surrey.ac.uk
Overview of talk

• The relationship between health and food
• Functions of food
• Lay themes with regard to health
• Healthful shopping
• Changing behavior
• Front of pack food labelling
• Conclusions
Food and health relationship

Food-related health often framed in terms of:

• morbidity and mortality statistics
• absence of disease and the restoration of the body to a normal state of functioning
• interventions which can restore the body to normality

## Functions of food

<table>
<thead>
<tr>
<th>Category</th>
<th>Example Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological</td>
<td>e.g. biology, nutrition</td>
</tr>
<tr>
<td>Gastronomic</td>
<td>e.g. anthropology, nutrition, sensory science, sociology, marketing</td>
</tr>
<tr>
<td>Communication</td>
<td>e.g. anthropology, sociology</td>
</tr>
<tr>
<td>Status</td>
<td>e.g. economics, marketing, psychology, sociology</td>
</tr>
<tr>
<td>Power</td>
<td>e.g. psychology, sociology</td>
</tr>
<tr>
<td>Safety &amp; Security</td>
<td>e.g. anthropology, economics, sociology</td>
</tr>
<tr>
<td>Magic</td>
<td>e.g. anthropology</td>
</tr>
<tr>
<td>Religious</td>
<td>e.g. anthropology, theology</td>
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</tbody>
</table>

Lay themes with regard to health

- Definitions of health
- Explanations for health/how health is maintained
- External and uncontrollable factors that affect health
- The place health occupies in people’s lives

Lay themes with regard to health

• Definitions of health
  • Health is the absence of illness
  • Health is being able to carry out daily functions
  • Health is equilibrium
  • Health is freedom, the capacity to ‘do’
  • Health is constraint

• Explanations for health/how health is maintained
• External and uncontrollable factors that affect health
• The place health occupies in people’s lives

Lay themes with regard to health

- Definitions of health
- Explanations for health/how health is maintained
  - Health through meditation and/or prayer
  - Health is dependent upon mental attitude
  - Health through working
  - Religious and supernatural explanations
  - Health maintained through rituals
  - Health is maintained through internal monitoring
  - Poor health is one’s own fault
- External and uncontrollable factors that affect health
Lay themes with regard to health

- Definitions of health
- Explanations for health/how health is maintained
- External and uncontrollable factors that affect health
  - Health is a result of policies and institutions
  - Health is affected by the environment
  - Health is genetics
- The place health occupies in people’s lives

Lay themes with regard to health

- Definitions of health
- Explanations for health/how health is maintained
- External and uncontrollable factors that affect health
- The place health occupies in people’s lives
  - The priority placed on health
  - The contradictory nature of lay health beliefs

Healthful shopping
Aim: to explore consumers’ perceptions of a healthful shop and identify barriers to conducting a healthful shop

Data collected as part of ⚫️ safefood-funded Good Days, Bad Days project

Northern Ireland and Republic of Ireland

Data collection methods:

- Accompanied regular shop n=50
- Accompanied in-store task = last minute guest, limited cooking time, limited shopping time
  - Meal task n=25
  - Healthy meal task n=25
Healthful shopping

How health is represented in consumers’ food purchasing decisions

**A healthy shop requires effort**
- What’s right versus what’s easier or more desirable
- Limited time and/or money
- Convenience

**Using product-based inferences as a guide**
- Labelling
- Branding
- Perceived health benefits

**Being responsible for meeting the needs of others**
- Parental responsibility
- Health needs of others
- Needing to treat

**Controlling the self**
- Lack of self control
- Complete avoidance of food products or categories
- ‘All or nothing’ approach

“Being responsible for meeting the needs of others

‘I have two step-kids and they come to visit every other weekend and they’re coming this weekend, so I always like to have more, because if they’re hungry, I would say, look, would you like to have scrambled eggs, you know, rather than lifting chocolates and crisps all the time, give them a snack.’

‘...my wife’s on the [name of brand] diet so she’s asked me to get the [name of brand] yoghurts, so I’ll try and look for them.’

‘I always think it’s nice for the kids to have a wee treat, because they’re very very healthy kids and a treat would be like a [name of brand] or a chocolate chip cookie for their supper, so I’m just looking to see which ones, so I’m looking for [name of brand], there they are.’

‘...if I had people planned to come over for an evening meal or a Sunday lunch or whatever, then obviously I would be buying other little items. The luxury items, the cakes, and the biscuits and the desserts....’
Controlling the self

‘I tend not to look down there, that’s where all the beer is and I get tempted.’

‘Now I’m heading down to the ham, ham is my concession for my little fat.’

‘We’ll be naughty and have a little treat [bar of chocolate].’

‘I never go for the likes of chocolate biscuits or crisps or anything, the only crisps is you know the wee... I don’t know if they have them here so I will go round to see light bites, [name of brand] light bites or something you call them, chilli infuse...’

‘...I might get some Jaffa cakes. I’m very weight conscious when it comes to certain things and they’re not high in calories, they’re low...’
‘It’s dried pasta, with a herby sauce on it and again it’s good with sausages or something. It wouldn’t be the healthiest, but it’s quick sometimes.’

‘I’ll grab some [name of brand] because they’re on offer too, they’re only £1, it’s easy enough. All the bad things.’

‘The only thing is, sometimes I would buy these here little biscuits and they’re not on my list because they’re not healthy, but because they’re on offer.’

‘I don’t want oranges, I couldn’t be in the mood to eat fruit at the moment, but I know I should but I don’t feel like it.’
'I would make them out of turkey because it’s healthier than making them out of red meat, although we do eat red meat, but I think it’s healthier to have the turkey mince rather than buying the steak ones.'

'[name of brand] is usually okay and at least you know it’s not too much weight.'

'I don’t know maybe it’s something in your head when you see something in blue and it says reduced fat and you think it is, but if you really read it it’s probably not much difference you know, but I buy it anyway.'

'...the likes of the [name of store] ones are an awful lot cheaper than the [name of brand], but again their baked bars are high, they advertise them as being these healthy things, but they’re not really, if you read.'
Barriers to conducting a healthful shop

Consumers’ perceptions of a healthful shop and barriers to conducting a healthful shop

- barriers to healthful shopping:
  - lack of self-efficacy in choosing, preparing and cooking healthful foods
  - conflicting needs when satisfying self and others

- Whilst the importance of healthy eating was recognised, consumers were unaware how internal and external cues impacted on carrying out a healthful shop
A lack of self-efficacy in choosing, preparing and cooking healthful foods - Ability to manage time

“Maybe if I made a list so I would not pick up unnecessary items.”

“When you’re in a rush sometimes there’s loads of people, you just don’t really have time to stand and stare at a packet, you feel like you’re pressured.”

“Lack of money and time lead to quick and easy solutions throwing stuff into the oven or microwave from packets.”

“Like when you’re in a rush and you don’t have time to think and you’ve 50 things on your mind, it’s either grab something quick or don’t eat at all.”
A lack of self-efficacy in choosing, preparing and cooking healthful foods - Ability to manage money

“It comes down to affordability as well at certain times of the month I think that might be bad but I must get something to eat.”

“Sometimes it’s easier to go for the things that are on offer as opposed to, because sometimes the healthy eating option, if it’s all healthy eating can be very expensive.”
A lack of self-efficacy in choosing, preparing and cooking healthful foods

- Ability to prepare and cook healthful foods

“I wouldn’t have the confidence to cook. I don’t really do salads myself. .....I find I’m not a great cook. I sometimes think maybe I’m missing out on healthier foods.”

“I think my food choices would be healthy but I think they would be a bit repetitive and not as broad. I would always buy peppers, courgettes, onions, garlic, carrots, parsnips, broccoli you know frozen pea. I would use a lot of them but sometimes I would go oh no there is a whole lot of vegetable that I am not using.”
A lack of self-efficacy in choosing, preparing and cooking healthful foods

- Ability to choose healthful foods

“It can be a bit daunting sometimes, looking at packages and stuff and trying to work out whether it’s good or bad, or you think something is low fat but there’s more salt or more sugar in something, so I think if labels were clearer and easier to understand it would be much better.”

“I don’t actually look at these so-called healthy foods that are quick meals so I would have a gap in my knowledge and in the background in my mind I would think perhaps they’re not best value either, so maybe that’s an area I could have been educated in.”
<table>
<thead>
<tr>
<th>Type of decision</th>
<th>All N=3216</th>
<th>Accompanied shop n=2424</th>
<th>In-store task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Healthy meal n=416</td>
</tr>
<tr>
<td>Price</td>
<td>35.9</td>
<td>35.5</td>
<td>36.5</td>
</tr>
<tr>
<td>Preference</td>
<td>27.1</td>
<td>29.5</td>
<td>22.4</td>
</tr>
<tr>
<td>Appearance</td>
<td>24.0</td>
<td>22.8</td>
<td>24.8</td>
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<tr>
<td>Placement</td>
<td>22.3</td>
<td>20.0</td>
<td>34.6</td>
</tr>
<tr>
<td>Who eats</td>
<td>16.6</td>
<td>19.0</td>
<td>9.1</td>
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<tr>
<td>Familiarity</td>
<td>15.8</td>
<td>19.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Availability</td>
<td>13.3</td>
<td>8.9</td>
<td>28.8</td>
</tr>
<tr>
<td>Packaging preference</td>
<td>9.8</td>
<td>8.2</td>
<td>14.2</td>
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<tr>
<td>Plans and inspiration</td>
<td>9.6</td>
<td>9.3</td>
<td>7.5</td>
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<tr>
<td>Reference to pantry</td>
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<td>11.2</td>
<td>5.5</td>
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<tr>
<td>Quality</td>
<td>7.3</td>
<td>8.3</td>
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<tr>
<td>Health</td>
<td>6.9</td>
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<td>13.5</td>
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<tr>
<td>Convenience</td>
<td>6.2</td>
<td>5.9</td>
<td>7.2</td>
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</table>
### Characterizing product decisions (%)

<table>
<thead>
<tr>
<th>Type of decision</th>
<th>All N=3216</th>
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<th>In-store task</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Healthy meal n=416</td>
<td>Meal n=376</td>
</tr>
<tr>
<td>Conscious decision-making</td>
<td>5.7</td>
<td>4.8</td>
<td>7.9</td>
</tr>
<tr>
<td>Nutrients</td>
<td>4.9</td>
<td>4.3</td>
<td>9.4</td>
</tr>
<tr>
<td>Shopping experience</td>
<td>4.7</td>
<td>4.2</td>
<td>5.5</td>
</tr>
<tr>
<td>How it will be used</td>
<td>4.3</td>
<td>3.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Unavailability</td>
<td>3.8</td>
<td>3.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Boring/interesting</td>
<td>3.1</td>
<td>3.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Cooking time</td>
<td>3.0</td>
<td>1.6</td>
<td>7.9</td>
</tr>
<tr>
<td>Speciality e.g. artisan</td>
<td>2.9</td>
<td>2.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Ingredients</td>
<td>2.4</td>
<td>2.7</td>
<td>1.7</td>
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<tr>
<td>Stated barriers</td>
<td>2.3</td>
<td>2.4</td>
<td>3.1</td>
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<tr>
<td>Treat - people</td>
<td>1.8</td>
<td>1.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Cooking method</td>
<td>1.8</td>
<td>1.5</td>
<td>3.6</td>
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</table>
Healthful shopping

Conclusions

• Health priming works
  • healthfulness only mentioned 13.5% of decisions and nutrients in 9.4%
  • preference one of the most common considerations
  • possible competing considerations of time and guest
  • heuristics rather than labels to determine healthfulness
• Interventions need to target motivation
  • nutrition-related information used in minority of decisions
  • conscious decision-making/comparison used in minority of decisions
• Main nutrients considered: fat, sugar, kcal
Changing behaviour
Changing diets

Targeting single nutrients
• Add a new food
• Omit an existing food
• Change within product category
• Change between product categories
• Buy/eat supplements

Targeting several but not specified nutrients
• Favour buying/choices of foods that are high in nutrient density per energy unit
• Avoid buying/choices of foods that have low nutrient density per energy unit
• Buy/eat supplements

Targeting eating behaviour
• Eat more/less by modifying portion sizes
• Change composition of a meal
• Change the meal pattern

Mechanisms of behaviour change

Mechanisms affecting belief formation - cognitive mechanisms

Mechanisms of intention formation
- Decisional balance
- Social influences
- Control mechanisms

Mechanisms related to adopting and maintaining behaviour
- Self-efficacy
- Planning and goal setting

Habits and routines
- Accumulated experience with behaviour
- Strength of habit
- Change in context factors affecting habits

COM-B Behavioural system

- physical
- psychological (the capacity to engage in the necessary thought processes - comprehension, reasoning)

- reflective processes (involving evaluations and plans)
- automatic processes (involving emotions and impulses that arise from associative learning and/or innate dispositions)

- physical (afforded by the environment)
- social (afforded by the cultural milieu that dictates the way that we think about things (e.g., the words and concepts that make up our language)

**Education**
Increasing knowledge or understanding
*e.g. providing information to promote healthy eating*

- Physical
- Psychological
  *the capacity to engage in the necessary thought processes - comprehension, reasoning*
- Reflective processes
  *involving evaluations and plans*
- Automatic processes
  *involving emotions and impulses that arise from associative learning and/or innate dispositions*
- Physical
  *afforded by the environment*
- Social
  *afforded by the cultural milieu that dictates the way that we think about things (e.g., the words and concepts that make up our language)*

**Environmental restructuring**
Changing the physical or social context
*e.g. providing prompts to use labels via mobile phones upon entry into supermarkets*
*e.g. only serving wholegrain products in a canteen or restaurant*
Training
Imparting skills
e.g. training how to read nutrition labels
e.g. training on how to prepare wholegrain-rich or low-sugar meals

Modelling
Providing an example for people to aspire to or imitate
e.g. using TV drama scenes involving consumption of low sugar drinks or desserts

Physical

Psychological
the capacity to engage in the necessary thought processes - comprehension, reasoning

Reflective processes
involving evaluations and plans

Automatic processes
involving emotions and impulses that arise from associative learning and/or innate dispositions

Physical
afforded by the environment

Social
afforded by the cultural milieu that dictates the way that we think about things (e.g., the words and concepts that make up our language)

Capability
Motivation
Opportunity

Restriction
Using rules to reduce opportunity to engage in the target behaviour (or to increase the target behaviour by reducing opportunity to engage in competing behaviours)
e.g. prohibiting sales of products high in sugar or low in dietary fibre
**Persuasion**
Using communication to induce positive or negative feelings or stimulate action
e.g. using imagery to motivate increases in healthful foods

**Coercion**
Creating expectation of punishment or cost
e.g. raising the financial cost to reduce excessive sugar consumption

**Incentivisation**
Creating expectation of reward
e.g. using prize draws to induce label use, e.g. QR code scanning

- Physical
- Psychological
- Physical afforded by the environment
- Social
- Reflective processes involving evaluations and plans
- Automatic processes involving emotions and impulses that arise from associative learning and/or innate dispositions
- the capacity to engage in the necessary thought processes - comprehension, reasoning
- afforded by the cultural milieu that dictates the way that we think about things (e.g., the words and concepts that make up our language)

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*Food Matters Live Conference 2014*
Front of pack food labelling: impact on consumer choice
Research questions

1. How do people use front-of-pack labels in real-life shopping situations?

2. How do people combine the multiple sources of information into a single assessment of healthiness?

3. Can we use front-of-pack labels as a tool to increase purchasing of healthy foods?
Research methods

- Development of a theoretically informed web-based interactive intervention encouraging the use of front-of-pack labels
- In-store qualitative research using wearable cameras
- Pilot randomized control trial with primary outcome measures based on real purchase data collected through grocery store loyalty cards

<table>
<thead>
<tr>
<th>26 weeks</th>
<th>4 weeks</th>
<th>6 weeks</th>
<th>16 weeks</th>
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<tbody>
<tr>
<td>T₁</td>
<td>T₀</td>
<td>T₁</td>
<td>T₂</td>
</tr>
</tbody>
</table>

Baseline purchase data collected retrospectively
Recruitment
Intervention period
Follow-up period
Study of purchase behaviour of SenseCam and eye-tracking
Challenges

• Food choice behaviour is habitual so harder to change through information provision

• Whether habitual or carried out consciously food choice is not related to health when health is conceptualised as disease prevention unless it is personally relevant

• How do we make food-related behaviour personally relevant to the majority?
Conclusions

• Take account of consumers’ relationship with food: social, economic issues, food literacy, emotional knowledge as well as physical and psychological traits – **food wellbeing**

• Increase relevance by addressing broader range of meanings of health when designing intervention programmes

• Incorporate the emotional, spiritual, the more positive aspects of health as part of **wellbeing** which may then trigger more individuals into readiness to change their food-related behaviour