



Critical factors in appreciation and acceptance of meat-analogues

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Background

The urgency for a sustainable diet boosts the need for meat alternatives made from sustainably produced proteins. Plant-based products mimicking meat can be such an alternative. To increase appreciation and acceptance, it is important to understand consumer's attitudes towards such products and the factors that play a role in appreciation and acceptance. It is important to take into account that the average consumer doesn't exist, and consumers with different beliefs may have may differ in their attitudes towards meat analogues.

Objective

To gain insight in critical factors in appreciation and acceptance of meat analogues among different groups of consumers and chefs.

Method

Focus group (n=6-7) discussions were performed with meat eaters (n=14), flexitarians (n=14), vegetarians (n=13), and Chefs (n=6). The discussions started with free associations and discussion on meat analogues. To further stimulate the discussion, three types of products, varying in structure, form and flavouring were tasted halfway the discussion.

Results

Eating meat or not: a continuum

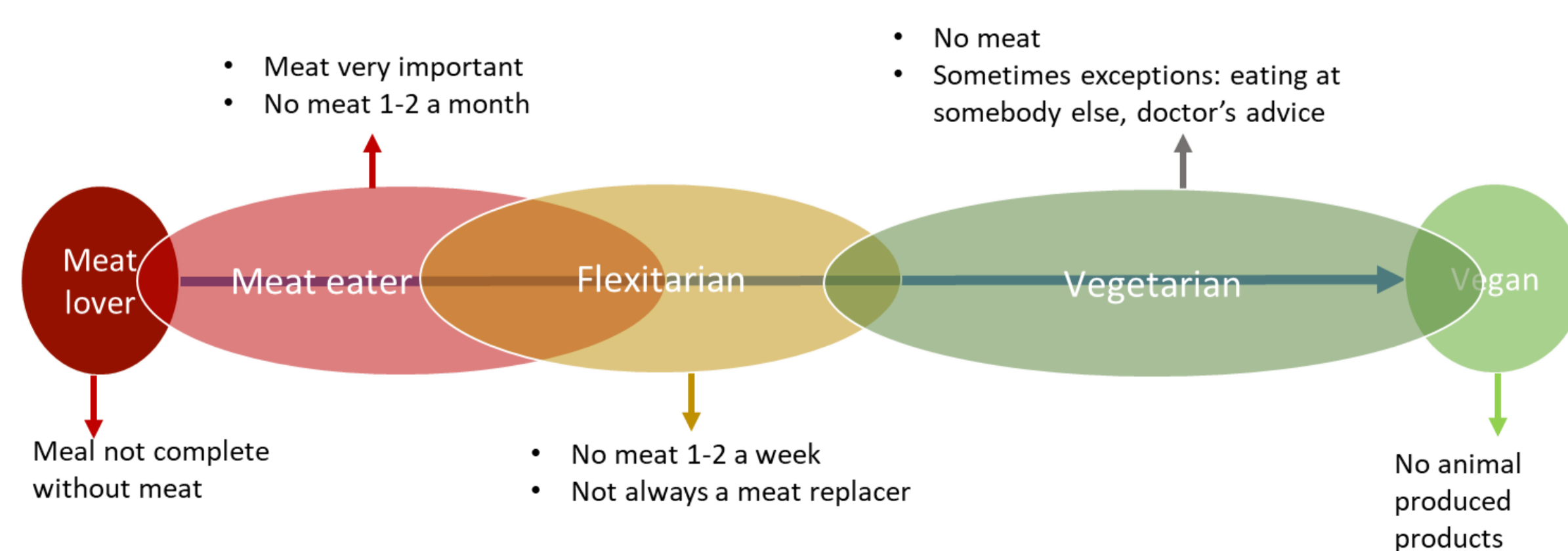


Figure 1. Distribution of meat eating frequency over different groups

Meat Eaters	Flexitarians	Vegetarians	Chefs
<ul style="list-style-type: none"> No animal origin Plant-based Rich in proteins Copying meat Soy Vegetables Nuts 	<ul style="list-style-type: none"> Soy or cheese based products Based on nut, pod fruits, legumes A product that is made to mimic/resemble meat 	<ul style="list-style-type: none"> Nuts, pod fruits, vegetables, soy Jackfruit Different brands: Vales, Vivera, Vegetarische Slager, private labels. Vegetarian cold cuts for making a sandwich. Products with added nutrients Source of protein and added B12 	<ul style="list-style-type: none"> Create a complete culinary experience: protein, taste, structure.

Figure 2. Free associations with "meat analogues" by Meat eaters, Flexitarians, Vegetarians, and Chefs

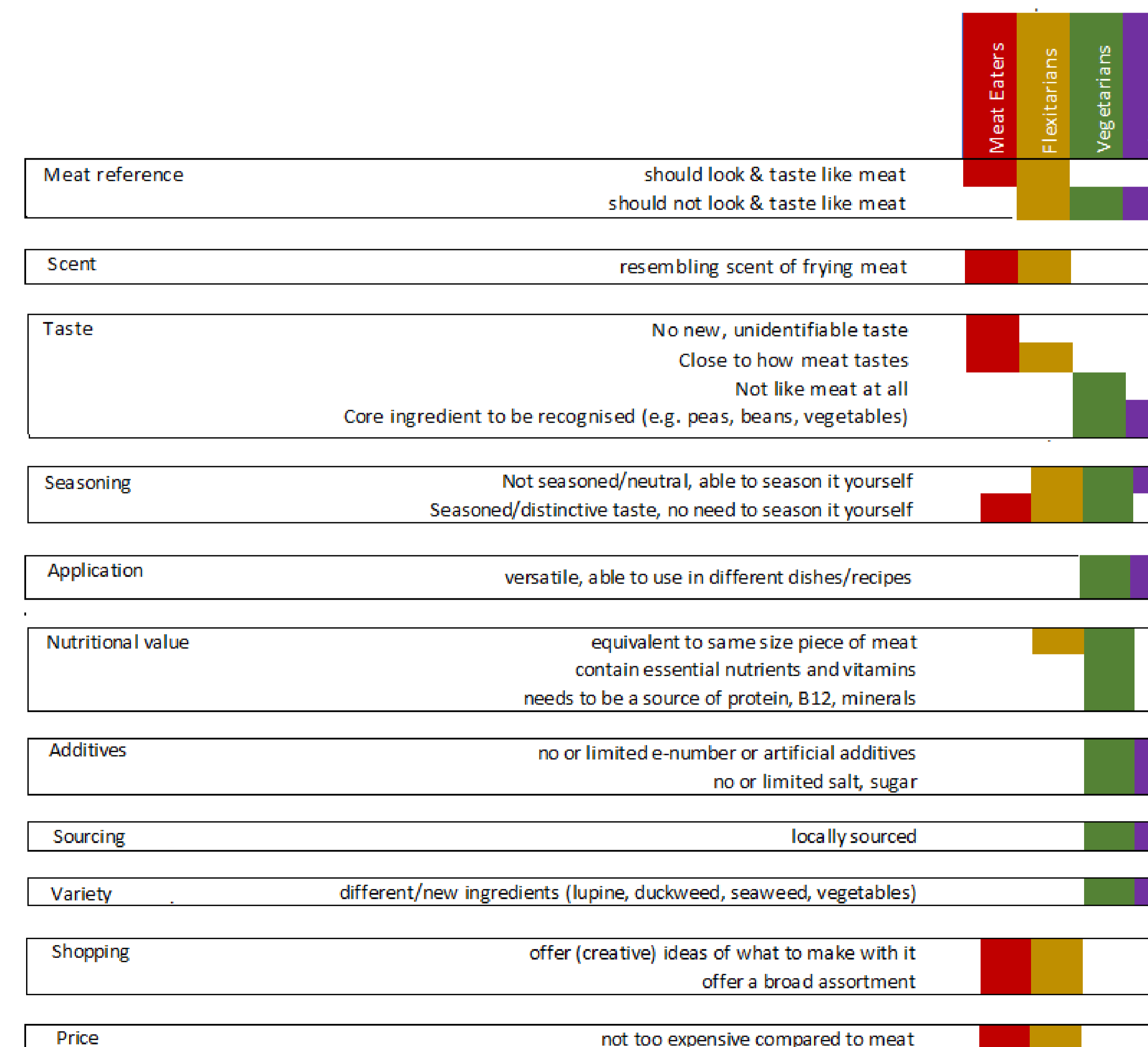


Figure 3. Attributes relevant for Meat eaters, Flexitarians, Vegetarians, and Chefs respectively

Frame of reference

Focus of positive and negative associations differs between groups:

- Meat eaters focus most on taste, Vegetarians on naturalness of the ingredients.
- Vegetarians look at meat analogues as a training wheel for cutting down on meat.
- For Chefs the focus is on creating a complete culinary experience.

Barriers for using meat analogues

- Negative image of and unfamiliarity with ingredients
- Unfamiliarity with preparation
- (Expected) negative sensory attributes
- Association with meat, which is negative for vegetarians and often fails for meat eaters

Flexitarians appear to be the most open to meat analogues

Product attributes

Important for all groups:

- Visual: appealing, not artificial, nice brown colour when prepared
- Mouthfeel: tender, juicy, with a bite, not too compact
- Taste: rich, full, keep taste while chewing
- Texture: firm, keep texture with preparation
- Application: clear instructions, absorb right amount of oil/fat
- Purchase: able to keep it long enough

The attributes that vary over groups are depicted in figure 3.

Conclusions

Differences between Meat-eaters, Flexitarians, Vegetarians and Chefs imply that for these groups different products replacing meat are preferred. For meat analogues, Flexitarians seem the most promising target group.

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