

Eating insects: cultural and individual experiences affect perception and acceptance

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Although insects are not traditionally eaten in Western countries, other regions around the world have long considered them acceptable on the menu. A recent paper published in the journal [Food Quality and Preference](#) provides new insight into the way cultural background and individual experience may influence acceptance or rejection of edible insects. Study results show that overcoming existing negative perceptions of insects as food must be addressed if they are to be accepted by consumers who are not familiar with them.

In this cross-cultural qualitative study, researchers from [University of Wageningen](#), Netherlands, and [Kasetsart University](#), Thailand, analysed participants' perceptions, expectations and preferences of various insect-based food items. In order to compare how this cultural exposure affected participant acceptance of eating insects, participants were recruited from the Netherlands, where insects are not ordinarily consumed, and Thailand, where they are frequently consumed. 29 participants from the Netherlands and 25 participants from Thailand (54 in total) were divided into 8 focus groups* based on their previous level of individual experience of eating insects, i.e. 4 groups of 'eaters' (2 Dutch groups and 2 Thai groups) and 4 groups of 'non-eaters' (2 Dutch groups and 2 Thai groups).

The focus group interviews took place in four stages: discussion of individual experiences and knowledge; discussion of reasons to eat or not to eat insects; evaluation of images of insect species and products; and optional tasting and evaluation of insect-based products.

The researchers reported clear differences in motivation, which was dependent on participants' country of origin. Thai eaters largely mentioned experience-based reasons, such as previous positive eating experiences or regular eating of insects by their families. The main reasons mentioned by Dutch participants were curiosity, nutritional benefits and sustainability considerations, for example high protein content or meat alternatives.

The researchers also observed a distinction between participants who classed themselves as 'non-insect eaters'. While Dutch 'non-eaters' had simply never tried eating insects before, Thai 'non-eaters' had eaten insects in the past, but then actively chose not to eat them for personal reasons, such as allergies or disliking the taste.

Thai participants were able to identify a wider range of edible species, which was due to their in-depth cultural exposure, rather than individual experience, compared to the Dutch participants.

It's all about the presentation

Preparation methods and appearance of the finished product had a strong influence on participants' expected 'liking' and 'willingness to try' attitudes towards a product. In general, reducing the visibility of the insect; i.e. coated or ground insects, increased Dutch participants and Thai 'non-insect eaters'

willingness to taste them.

When the appearance of a product prompted negative visual associations, the participants were also less willing to taste the product. For example, participants commented that muffins containing mealworms (a type of insect larvae) looked rotten; therefore, participants' attitude scores to the muffins were very low.

During tasting, Thai participants made fewer expressions of disgust and generally based their tasting decisions on which insects they had enjoyed eating in the past. Dutch participants, on the other hand, saw this as a rare and interesting opportunity to taste new foods, while simultaneously showing signs of hesitation or disgust before tasting. Also, Dutch non-insect eaters were more likely to taste a product following reassurances from participants who had already tasted it.

The authors concluded that insect-food product development will need to take both cultural and individual expectations into account for better chances of consumer acceptance; especially for those with no previous exposure to edible insects.

While European populations may be interested in the health and environmental benefits offered by edible insects, this may not be enough to overcome cultural and individual barriers to consumption. Visual and sensory properties must be carefully considered for acceptance of insects as a novel food source. Due to the limited sample size, it is not possible to draw conclusions on the opinion of the wider population. Future quantitative studies on larger groups of people could provide more in-depth insights into consumer preferences and behaviours.

* Focus group interviews are structured discussions, involving small groups of people with a common set of characteristics (e.g. demographics, attitudes). This consumer research tool is commonly used to investigate consumers' perceptions, opinions or attitudes about a topic.

For further information please see:

[Tan HSG, Fischer ARH, Tinchai P, et al. \(2015\). Insects as food: Exploring cultural exposure and individual experience as determinants of acceptance. Food Quality and Preference 42: 78-89. DOI:10.1016/j.foodqual.2015.01.013](#)