



The insectivore's dilemma, and how to take the West out of it



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ABSTRACT

A number of health and agricultural organizations have been encouraging Westerners to integrate insects into their diet, without success. Appealing to consumer's reason and responsibility, as they do, is likely to reinforce a dilemma in the mind of consumers: many know that they can, in principle, eat insects, and perhaps that they should eat some, but very few are willing to eat them. Here we argue that current strategies are on the wrong track in identifying the key obstacle to overcome as a question of the negative representation of insects. Decades of laboratory research, as well as years of experience in gastronomy, suggest that people's food choices are relatively immune to rational changes of representation, and instead tend to be driven by taste preferences and exposure. Here we suggest an alternative sensorially-driven strategy, which stands a much greater chance of making people eat insects on a regular basis. The turn – or better said return – to entomophagy in this sense, needs to be driven by a psychologically realistic motivation and gastronomic interest.

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“The concept of what is not acceptable as food in English culture is well conveyed by the schoolboy’s question “What is worse than finding a maggot in your apple?” – “Finding half a maggot.””

[(Holt, 1885/1992, Why not eat insects?, p. 6).]

“The boy held up his scorpion to show the room, but stopped short of putting it in his mouth – ‘How do I eat it? Do I eat the sting?’ The girl took a small bite of hers. ‘What does it taste like?’ her hosts wanted to know – ‘Nothing I have ever tried’. She ate the rest. Then the boy bit into his. ‘What does it taste like?’ everyone asked – ‘Chicken.’”

[(Loo & Sellbach, 2013, p. 23).]

1. Introduction

In 2010, a widely cited document published by the United Nations’ Food and Agriculture Organization stressed “*the exceptional nutritional benefits of many forest insects, and (...) the potential to produce insects for food with far fewer negative environmental impacts than for many mainstream foods consumed today*”. Stronger claims have been voiced since, for instance stressing that eating insects might be “the last great hope to save the planet” (Martin, 2014). Yet, except as a challenge to the minor celebrities in some popular TV shows¹ or as a subject for the media to get their teeth into,² the eating of insects has not, as yet, gained a wider audience in the Western world. The UN report, quoted by many newspapers, seems to have failed to convince us “*that the insects are safe and attractive for human consumption*” (see Durst, Johnson, Leslie, & Shono, 2012, p. iii). Not mentioning the safety issue, the sore point is obviously the attractiveness of insects, or rather their lack of attractiveness. This is one of the key problems that UN officials currently do not appear to have an adequate solution for.

Their principle strategy at the moment seems to be to stress both the environmental and nutritional benefits that could convince Westerners to start integrating insects into their diet. This ambition is carried by the press, still without much sign of success. While the BBC’s website pedagogically stresses that the ‘UN urges people to eat insects to fight world hunger’,³ El Mundo⁴ declares insects “the food of the future” and Le Monde sees the worm-quiche as the new meat.⁵ The title of a recent piece in *The Observer* tried to

¹ In the bushtucker trial that formed a part of the TV show ‘I’m a celebrity get me out of here’, contestants are challenged to eat various insects such as crickets, green ants, mealworms, witchetty grubs, roasted spiders or tarantulas, and cockroaches (with the insects being prepared in various ways such as cooked into biscuits, blended into drinks, eaten alive or dead). Besides insects, these trials also include eating parts of the body considered as ‘taboo’, such as the brains, eyes, genitalia, tongues or tails of various animals. According to the ITV website, this part of the show is the one that generates the greatest number of viewer responses (from [http://en.wikipedia.org/wiki/I'm_a_Celebrity...Get_Me_Out_of_Here!_\(UK_TV_series\)#Bush_Tucker_trial](http://en.wikipedia.org/wiki/I'm_a_Celebrity...Get_Me_Out_of_Here!_(UK_TV_series)#Bush_Tucker_trial)). Although, ironically, the witchetty grubs had to be taken off the menu last year as there was a nationwide shortage of the grub due to bad weather (see Smith, 2013).

² See the press coverage of the UN report above (e.g., in El Mundo, Le Monde, The Guardian and all the main European Newspapers) and of the ‘ants with cabbage and crème fraiche’ served by Noma chefs during their visit to London in 2012 (e.g., in Bloomberg, <http://www.bloomberg.com/news/2012-07-30/london-cocktail-marathon-awaits-olympics-drinkers-review.html>; The Independent <http://www.independent.co.uk/life-style/food-and-drink/news/worlds-best-restaurant-comes-to-town-and-its-serving-ants-7995007.html>; The Telegraph, <http://www.telegraph.co.uk/foodanddrink/restaurants/9458708/A-taste-of-Noma-at-Claridges-London-restaurant-review.html> or The Financial Times <http://www.ft.com/cms/s/2/4874fc62-cbb7-11e1-911e-00144feabdc0.html#axzz36JdzdP23>).

³ <http://www.bbc.co.uk/news/world-22508439>.

⁴ <http://www.elmundo.es/economia/2014/07/10/53be5ab1268e3e60638b4574.html>.

⁵ http://www.lemonde.fr/planete/article/2011/01/20/la-quiche-aux-vers-une-alternative-a-la-viande_1467974_3244.html. Only Die Welt agreed that insects could not so easily be the ‘new meat’ (<http://www.welt.de/wissenschaft/article106139107/Warum-Insekten-nicht-unser-neues-Fleisch-werden.html>).

Table 1

Protein content of common insects from dry weight basis (from Ramos-Elorduy, 1998).

Common English name	Protein percentage
Leafhoppers	56.22
Yellow mealworm beetle larvae	47.76
House fly larvae	54.17
House fly pupae	61.54
Damer larvae	56.22
June beetle larvae	42.62
Agave billbug larvae	55.56
Honey bee larvae	41.68
Water boatmen and backswimmer eggs	49.30
Water boatmen adults	63.80
Stink bugs	53.80
Leafcutting ants	44.10
Paper wasp pupae	58.30
Red-legged locusts	57.93
Corn earworms	75.30
White agave worms	41.98
Red agave worms	30.28–51.00
Treehoppers	44.84–59.57

make the consumption of insects an unavoidable rational choice by noting that ‘Of course, we don’t want to eat insects, but can we afford not to?’⁶ The failure of these strategies, we argue here, is predictable: simply stressing the sustainability and nutritional value of insects as a source of food (see, for instance, Table 1) is unlikely to provide sufficient motivation to drive through a change in diet. Decades of research have repeatedly shown that changing people’s existing food choices by means of rational discourse normally fails: how, then, could encouraging new choices by means of rational discourse alone be expected to work?

More humane strategies based on exemplarity are also likely to fail. Highlighting the fact that insects are eaten in many countries across the world is one of the arguments that will often be heard when any discussion of entomophagy occurs. If *they* do it, why not us? But once again, this strategy is unlikely to make consumers eager to adopt a whole new category of food into their own diet. Food is a domain in which people – including those from the same culture or region – are inclined to be relativists: that insects are to some people’s taste does not mean that others should necessarily eat them. As somewhat hidden by recent books stressing the omnivorous nature of humans (e.g., Allen, 2012; Pollan, 2006), food choices are deeply varied and culturally-determined. Even within the same country, ethnic groups divide on the issue of whether or not they consider insects as a food source, thus suggesting that there is indeed no such thing as a simple ‘entomophagist’ diet across the vast array of non-Western countries.

The most promising strategy, as we want to argue here, is not to resort to arguments or examples from other cultures: it is to make Westerners enjoy the eating of insects. Humans want pleasurable dishes to eat, to share, and increasingly to talk about and photograph.⁷ The main problem that needs to be addressed regarding insects is simple to state: how can we make insects pleasurable to eat, or rather how can we make Westerners realize just how pleasurable they *can be* to eat?

Addressing this problem, however, is not so simple, and will require a combination of different kinds of expertise. Our intention here is at least to cross three different perspectives in the human, culinary, and experimental sciences. The motivation comes from the observation that, of the few studies to have looked at Western attitudes toward eating insects, most miss the point of entomophagy by looking at raw or exotic insects, which are likely

⁶ <http://www.theguardian.com/lifeandstyle/2013/mar/02/europeans-eat-insects>.

⁷ <http://www.telegraph.co.uk/foodanddrink/9828766/Eat-and-then-tweet-the-modern-way-to-dine-out-thats-driving-chefs-to-distraction.html>.

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