

Relativity in culinary matters and in taste is a big issue - our tastes (or distastes) for things are indeed shaped by what we are used to eat and see eaten, as well as other factors, genetics being one. Now they combine with less strictly sensorial aspects - and disgust for instance integrates, as Rozin pointed out, what he calls "cognitive aspects" such as the idea that substance X is contaminating.

In his reply to Nicolas Baumard' post "[Is a universal Michelin guide possible?](#)", [Jonathan Mair](#) raises some interesting questions about "culinary relativism". The first idea is that there is no room for relativism once foods, ingredients and recipes circulate : " Relativism really requires sealed units (culture) within which everything is familiar and between which many things are completely unfamiliar. Most people are faced with a whole range of degrees of exposure to different unfamiliar foods" The other has to do with possible differences in perceptions, revealed by linguistic differences : "As an English speaker I think of spicy things as being hot, obviously not the same hot as boiling water, but not altogether different either, and if something is too hot it burns no matter which kind of hot it is. I was surprised to find out this doesn't work in many languages - spicy things are itching or stinging in Spanish for example (possibly a bad translation, in any case, they're not hot and I don't think they burn). In Chinese there's also a completely different word for 'hot hot' (re, tang) and 'spicy hot' (la). But, in Mongolian (which was my fieldwork language) there is one word for both (haluun) just as there is in English."



Chili Pepper Ice Cream. Hot?

Maybe I am missing something, but I don't see why relativism, either concerning sensation and perception, or concerning the more cultural aspects of food preparations and culinary principles, couldn't apply in groups that are "open" and when foods available more widely.

First, the sensorial aspects are very slow to change, and second, there is much cultural reinforcement of old habits, alongside the development of new habits. The typical vietnamese diet may now include coca-cola, red wine and burgers, but it still includes a lot of rice wine, and traditional dishes. Sensorial and cultural aspects interact. Take the case of drinks (a topic I am more familiar with) : most vietnamese people who drink wine admit that it doesn't taste very good, and that they like best is its color (see [Dominique Valentin](#)'s forthcoming work on "Cultural

representations of wine"). I guess that the only thing that changes, in some parts of the world, is people coming to think "nothing is absolutely disgusting" : there are more and more people who believe they should try century eggs despite their initial reluctance. But the "nothing is absolutely disgusting, it's just that some foods are disgusting-for-group-X" seems to be....the fruit of relativism ! A lot of people would still refuse to eat century eggs or insects : it is only rarely suspended by relativism about food (understood as the absence of reluctance or disgust toward foods), academic curiosity.... or hunger ! In all these cases, anyway, I wonder whether disgust disappears or whether one learns to overcome it.

Distates and disgusts

In term of tastes, people in "multi-cultural food societies" still have habits, preferences and tendencies (as well as rules, rituals, etc). It's just that these habits range over a wider set of foods, and can evolve more through time. Food is a very social matter, and it's just not true that individuals start behaving like Brownian particles, with unexpected trajectories of preferences and behavior, independently of what other members of the group do. It's true that it's now possible for an English man to taste and come to like century eggs, but it hasn't become a traditional dish like scrambled eggs or eggs in vinegar, that you would serve in pubs or offer to your guests.

The burning taste of spices

Now the spicy food thing is very interesting in this respect because it seems to contradict what was just said. The Englishmen didn't use to eat curries, chilies, etc. and now they eat them in pubs and at home. But first, this hasn't been done without important transfers of population - Englishmen brought up in India, Indian people brought up in England. Second, it's not like Century eggs (there was no cultural disgust associated to spices, indeed some spices had been around for ages, and they also protect the food from being oxydised) ; it is not really like coca-cola, whose global success is partly due to the amount of sugar and caffeine it contains, partly to its image : lots of cheap energy made in America. So yes, spices are more a matter of tastes and image.

Spicy foods are initially aggressive to the palate (try it on kids ...or birds). The development of preference for foods containing aversive chemicals, like chili, may involve mere exposure, but also social reinforcement ("eat this if you are a man"), the "thrill" of the strong sensation, or some physiological reinforcement either associated with satiety (which spices promote) or with the release of endorphins by the painful stimulus. Or a mix of all these things.

So, "hot or itchy" ?

Well, spices stimulate the trigeminal nerve (the one that runs through your face, thus the fact that you get red, cry, and feel a burning sensation over your nose when you eat chili or mustard). It is thus a tactile and pain sensation, which of course gets bound with the tastes and smells one experiences at the same time (this binding is very complex, and what you feel trigeminally may influence your overall flavour perception, or be influenced by other dimensions of the food experience). Both thermal, textural and pain information is conveyed through the trigeminal pathways - and being then classified as hot or itchy. Thus these two words may well target the same bundle of sensations - menthol is reported to be cold, fresh, and slightly irritating, for instance. So, one has to be careful NOT to say that people don't experience spices being hot just because they do not call them "hot". Interestingly, one of the most frequent adjectives for spices is "burning" - which combines the thermal aspect (hot) and the pain aspect (irritating).

Now if the qualities or dimensions of what is experienced may not differ, the intensity of the burning-hot-irritating aspect raises problems, that Jonathan's remarks underline. Suppose the two Chinese words, the one meaning 'hot hot' (re, tang) and the other meaning 'spicy hot' (la) both apply to food. Do Chinese speakers, with similar culinary background, disagree on whether one and the same (token) dish is 'hot hot' or 'spicy hot', and what happens if you add some capsaicin (the "active" part of chili) to this very same dish, while keeping the other ingredients untouched? Although the two terms may target either a qualitative difference between two kinds of trigeminal pattern of stimulation, they may also reveal a difference in intensity within the same pattern (or both an intensity and a quality difference ? cooking is a such melting-pot...). Still, the idea that they refer to an intensity difference would explain the single word in English and Mongolian : every spicy food burns a lot, because members of these communities are not used to eat spices. Chinese are used to some degree of trigeminal irritation (spicy hot) which doesn't mean they are insensitive to irritation, and some dishes are still 'hot hot'. But this is just a guess - and it should be checked.

The intensity of the trigeminal sensation varies with exposure, and this is well studied, for example in [this paper](#) : " In humans, repetitive application of capsaicin, citric acid, or concentrated NaCl elicits oral irritation that grows in intensity across trials ("sensitization"). After a rest period, reapplication elicits less irritation ("self-desensitization"), but if given recurrently will eventually evoke a progressive rise in irritation ("stimulus-induced recovery"). In neurophysiological recordings from neurons in the trigeminal subnucleus caudalis (Vc), the first relay in the pathway for oral somatosensation, these irritants elicit a similar pattern of progressively increasing firing, followed after a rest by self-desensitization and "stimulus-induced recovery". In contrast, nicotine, menthol or mustard oil elicit irritation that decreases across trials ("desensitization"), a pattern also observed in Vc neuronal responses to these irritants"

Reading this paper, I realise that actually, Coca-Cola may be closer in some respects to spices. It irritates. But now, I would have to say the same thing about Champagne - but really, being French, I can't but think that Champagne must be an exception !