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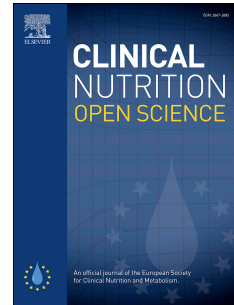
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The role of gastronomy in altered taste: A conversation with Maggie Beer and Julien Ferretti.
John Coveney, Health Sciences, Flinders University

MB: Maggie Beer

JF: Julien Ferretti

JC: John Coveney

MB My name is Maggie Beer, I live in the Barossa Valley, South Australia. I have, in the last 10 years, developed a great interest in food in aged care. I'm 77 years of age, I've always lived with a great diet, never using preservatives, and I'm very aware from my work with Professor Ralph Martins on food to protect the brain from dementia, and that diet has such an impact on our wellbeing and our way of life.

JF I am Julien Ferretti, my title is Chef and Culinary Project Leader, at the Institut Paul Bocuse Research Centre ,Lyon. I work as a consultant for academia, associations, foundations, industries and start-ups in the food sector in order to develop new food items, products, which go into the idea of a better way of eating for all type of population.

JC I was interested in some facts and figures that I found from the National Institute of Health, in the USA, saying that nearly 20% of Americans over 40 years report some changes in their sense of touch and therefore the sense of smell. This rises to nearly 30% of people who are over 80 years. In terms of smell, 24% of Americans over 40 years report alterations to their sense of smell, and for the over 80s, that goes to more than 30% for their sense of smell. Maggie, is that a surprise for you to hear how common this problem is?

MB Well no, can I first say if you're using American statistics, it doesn't surprise me particularly because I think Americans are way ahead of us in using pre-prepared foods. So if touch links to loss of sense of smell my thought would be that the scent of food being cooked from scratch [in the USA] is not as common in the home as, say, in Australia. So, in fact, I'm not surprised by such figures, and indeed I actually thought it might be more because of their [USA] higher use of pre-prepared foods. I don't think Australia is in this situation yet. As we age we lose our saliva, and saliva is the trigger for being attracted to food, the scent of food is tied in with saliva. So I know that for people over 80 years it's like having a muscle, if you don't use it atrophies. And I think a lot of people don't [use the muscle], I smell everything, you know. Smelling is part of loving food and so if you have a society where food is as important as it should be the loss of smell would be less I would think over 80 years.

JC Julien, from a French perspective do these figures in any way surprise you?

JF It doesn't surprise me but in some ways it's more concerning because when we develop recipes there is a taste creation in some ways, there's always this idea of trying to get the best tastes from a recipe. It could be very interesting to implement, for example, cooking lessons and also to try to have some, how do you say, guidelines for chefs or younger chefs in order to understand how to prepare food which can be more appreciated by people with sense alteration.

- JC And when we talk about altered taste and altered texture we're often referring to these problems as a result of head and neck surgery for cancer, although you mentioned aging, Maggie. Of course, we even have long COVID which for many people involves a loss of taste and texture. Maggie, you mentioned your interest in the older demography populations, can I draw you out a bit about how specifically you consider taste and texture when you're dealing with people in aged care?
- MB Okay, well there's a regular diet or there's texture modified food. However, the fact is that there is no specialised training for this incredibly complex arena. To get the best taste to maximise flavour we need the knowledge for cooking methods, and we need the fresh ingredients, and we also need the proximity of the diner to the food being cooked to allow the scent of the food to stimulate appetite. It's difficult in texture modified food to give that extra sense of care and the maximising of flavour. It requires more care and the freshest ingredients. We have to really look at more skill being given to texture modified than normal diet cooking. In Australia, the fact that management of aged care homes don't always understand the difference that beautiful food can make and without scent to tempt appetite and, flavour and pleasure, no matter if there is nutrition in food if not eaten we have a malnutrition issue.
- JC Julien, for you when does altered taste and altered texture come into your purview?
- JF I totally agree with Maggie first of all. The things that I see is when you're working people would have food or taste alteration or certain type of conditions which does make it able to prepare for them every type of texture. You go directly from good food to something which becomes only 'nutrition'. We've all trained to keep some texture if it's possible for the client, and also keep some interest inside of the food. I think this is essential even if it's modified, or even if it needs to go through a process of modification, the need to keep some culinary guidelines in terms of taste composition, maybe enhancement of taste or decrease of different type of ingredients which brings out some of play with temperature but also with trigeminal sensation. This is essential. And when speaking especially about smell and taste loss the importance needs to be recognised of the sound and the texture can be also a way to attract people.
- JC So you're both really pioneers at the forefront of challenging what we currently do for people who have altered taste and altered texture, and perhaps Julien I'll start with you with this one, and what do we currently do with people who have lost their taste of smell or require some textured modification? What do we do with them at the moment, what can they expect to experience right now?
- JF What I can see is a misunderstanding about the solutions or even the modification of taste. We did a big study which is called *Can You*, and it's a focus on the smell and taste alteration due to the chemotherapy. One thing that we recommend is for people to test themselves and their sensibility, and to adapt a diet through their sensibility to food because it can be hypo, hyper-sensibility to certain food types.
- JC So Julien, at the moment there's a bit of what we'd call one size fits all. Maggie, what's happening in your quarter at the moment?

- MB Well at the moment there are several things happening. One of the most discouraging things is that when a health professional says that this person has to go on a texture modified diet for many people that's in the worst place. What happens is you have all the different levels of texture modified, that includes the totally pureed meal. But there is not enough education about how to achieve those levels. Professionals and cooks get so caught up in these levels they're just taking away all the flavour out of food because of fear. There is a fear from the cooks and chefs of not doing the 'right thing'. So often what happens is you end up with three blobs on a plate; they're monochromatic because the vegetables have been cooked so much to make sure that they could be pureed. The care staff are so pushed for time that they swirl everything around together on the plate and where there might have been three separate flavours, now they are all one mixed flavour.
- JC Moving on, Maggie, how do you describe your engagement with ideas of gastronomy?
- MB For me gastronomy is the art of preparing, cooking, and serving beautiful food in lovely surroundings that stimulates the appetite, is laden with the goodness of the right nutrition and antioxidants, maximum antioxidants are needed, but give pleasure that is culturally fitting, as the pleasure of beautiful food is the direct link to wellbeing.
- JC Julien, when you think about gastronomy your work in the Institut Paul Bocuse stands out because it revels in gastronomy, How do you work in a gastronomic environment?
- JF I totally agree with Maggie on the way that it's not just this idea of putting food into your mouth but it's also the way it's presented, the way it's prepared, the way it's introduced and that's everything which is surrounding the fact of eating. So when we speak, for example, more specifically about taste alteration it shouldn't be eating alteration in some way, or gastronomy alteration of the food habits and you can still keep some food habits which are very important to people even if you have to modify the composition of the food.
- JC So Maggie how do you think you can bring a gastronomic approach to addressing altered taste and altered texture problems?
- MB Well to me what needs to be recognised would be seeing this as a really important field to be trained into. Because this area it needs very particular training to bring out the maximum taste, bringing in the *umami*, we need to bring in the cooking skills. And that can't happen without training. In this process, dietitians are vitally important but without a cook or a chef who has the skill to maximise the food and flavour, and who has the scent and an attitude of how important this is?
- JC So for you Maggie, the gastronomic approach is amplified by paying attention to the role of the cook and the chef, in attention to those various aspects of what is not just in food but what surrounds food, the ambience and so forth.
- MB Absolutely
- JC So Julien, how do you bring a gastronomic approach, or how do you think about a gastronomic approach to issues and problems to deal with altered taste and altered texture?

- JF For my part I think it's all about how you see the role of cooking and also the training of the different chef and something which is usually lacking is the sense of empathy. Chefs are trained to reproduce techniques to highlight ingredients without thinking about the final eater at the end. In the centre of gastronomy when you go into very high-end restaurant, 3-star Michelin restaurant, there is this idea of personalisation. For example, if they like the specific wine with a specific dish, everything is noted down in order to reproduce this ritual and also to adapt yourself in the service to a specific person.
- MB Julien, you used that word that is so important, *empathy*, and in Australia we have a huge problem of attracting cooks and chefs to aged care because they're not paid properly, and because they're not respected and we have to 'lift the bar', but we have to hire for a passion for food, a thirst for knowledge, and empathy.
- JC Just coming to the last question that I'd like to put to you both. I'm wondering if we're going to be serious about addressing successfully altered taste and altered texture problems, where else in the food system should we be putting our energy? For example, I've never ever seen a section of the supermarket, devoted to food for people who have taste problems, flavour problems. You can go along the baby food section and you'll see all sorts of things [ok, that a lot of them you wouldn't want to give to babies] but there is a role here I think for the food industry to play?
- MB There is always room, John. In Australia. Julien, we have two or perhaps three dominating supermarket complexes which means they tend to have all but have a monopoly and so they change very slowly in terms of specialisation. I think there is a role in the food industry, for sure, but I think there is another way that is because of COVID we have become a nation where online and direct to the customer has become so important. All of the things that limited it previously which is chilled transport from a commissary to a home has all been put in place because of COVID.
- JC You mentioned dietitians earlier, Maggie, and I taught dietitians, I was one of the lecturers, we never ever talked about flavour or anything like that but clearly there's a role for dietitians to play in with the taste to texture issues.
- MB That is music to my ears because dietitians come into two camps and the ones that just see it as science cannot do what we need. We need science and sensory and pleasure to come together and the dietitian has to work with the cook or the chef. And this lack of respect that I hear from the cooks or chefs has to be tackled from the teaching stage. We need to elevate the cooks and chefs and with empathy on all sides we need a collaborative approach with cooks and dietitians and that feeling of flavour being vital and respect for each other.
- JC Apart from the food industry, what other do you think need to be made aware of a gastronomic approach and not a formulaic approach to altered taste and altered texture problems?
- JF First of all I wanted, because it's one of the field I'm working in to go also with the food industry because we are especially helping them into bringing more a culinary point of view in the product developments and I think food or the, how you say it, smell, taste and texture alteration it's not even the source of the problem. The food which is often produced in mass production is

bland and is often very mixed with all textures together. We are trying to convey this idea and it's working in order to have for the overall population even for every day eating habits. Without them having taste alteration, something which is already better in taste, better in texture or more diversified in order for them also to have a better understanding and to adapt afterwards their diets to their preferences. So that's the first thing. The second thing on the taste alteration, for sure, it's the collective kitchens. For me this idea of personalisation is very important, it could be as simple as that as putting, for example, hot chilli sauce on the table so people can serve themselves if the food is too bland for them in some ways, or to have the possibility also we spoke about the *umami* instead of only adding salt into a dish in order to make it more tasteful maybe it could be a type of sauce *umami* very rich sauce, it can be a mushroom sauce or it can be a soya sauce which can be added for each individual. They can also adapt their eating habits to that. So that's quite important and we are missing this self-personalisation which also is very important.

MB Could I just add to that Julien, you were so right that we know from science that as a person ages they need more salt. So the cook or chef is so often cooking for themselves and tasting as they go, but their palette is younger so your idea, Julien, of having the extra condiments on the table for people to add to is great. In Australia we're trying to keep the elderly in their home as long as possible, forever, if possible, which means there is a carer looking after people. Now these carers do not know what food to cook for their loved one for who they are caring, and that, in society, is a thing we need to address.