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The nutritional cacophony may be detrimental to your health

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La cacofonia nutrizionale può essere dannosa per la salute

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Summary

Contemporary societies live in a growing cacophony of health and nutrition news, advice, opinions, beliefs and recipes. This cacophony tends to raise the level of anxiety, yet there is no evidence that it can bring about significant health benefits. In the developed world, health policies have been governed more often than not by implicit assumptions which are discussed and criticized. The role of social and cultural dimensions in food and eating patterns is discussed and some novel directions for research are suggested. In particular, the paper hints at the need for comparative approaches between similarly developed countries and the possible positive role of social-cultural factors such as commensality or certain forms of it.

Riassunto

Le società contemporanee vivono in una cacofonia crescente di notizie, consigli, opinioni, credenze e ricette sulla salute e sulla nutrizione. Questa cacofonia tende ad aumentare il livello di ansia ma non vi è alcuna prova che possa portare significativi vantaggi per la salute. Nel mondo sviluppato le politiche sulla salute sono state regolate il più delle volte da assunzioni implicite che sono state discusse e criticate. In questo articolo è stato discusso il ruolo della dimensione sociale e culturale nel cibo e nelle abitudini alimentari suggerendo alcune nuove direzioni per la ricerca. In particolare il lavoro allude alla necessità di approcci comparativi tra i paesi similamente sviluppati e il possibile ruolo positivo di fattori socio-culturali come la commensalità o alcune sue forme.

We live in a nutritional cacophony. As I write these words, today's *New York Times* prints a long article by one of the most prominent science writers in the English speaking world, Gary Taubes,

with the alarming title «Is sugar toxic?». The content is even more alarming; according to the author, in addition to making people fat, the substance also causes the «metabolic syndrome» and, via in-

sulin resistance, may well cause cancer as well (1). Before even reading the paper, I had heard on the radio that, «according to a recent study», coffee capsules for espresso machines may also cause cancer because of the amount of furane they contain. The same newspaper reporting the news is also likely to carry ads for various weight loss methods and a chain of restaurants or confectionery stores, a story on possible causes for obesity, advice to protect your children against the “epidemic” and any number of “recipes for health”.

As the great physician and debunker of medical myths Petr Skrabanek once wrote, «People who eat die» (2). From reading the inextricable mesh of advice, warnings, scare stories, irreproducible results, quack theories and serious science, advertising and PR that is the daily ration of anyone reading the news with a food and nutrition biased eye, one would be led to believe that there actually are other options besides not eating (people who *do not* eat die, too, but usually quite a bit faster). The other option, of course, being: prevention.

There is of course nothing wrong with prevention, except when it is based on false premises, shaky evidence and underlying moralistic bias. I am reminded of a cartoon showing two FDA experts watch-

ing obese passers-by from their office window. One asks the other: «Why is it that the more dietary information we give them, the fatter they get?» If indeed such is the case, where do the virtual “hidden calories” in the dietary information come from?

My answer would be that they probably come, mostly, from a set of implicit assumptions.

The first one could be phrased «current scientific knowledge is forever». Under this assumption, one looks at the past, particularly the distant past, from the height of an apparently definitive superiority. A hundred years ago, or even only fifty, admittedly, scientists and physicians believed in theories that were later proven wrong. But this was the past. Now we know... Yet the current state of knowledge rarely gets questioned in similar light. Seldom is the question asked: “What will scientists fifty years from now think about the current theory”? In his 1973 picture “*Sleeper*”, Woody Allen had his main character, one Miles, experience a sort of Rip van Winkle experience in which he woke up from a long sleep in some remote future. The following dialogue occurs over Miles’ head as he awakes:

Dr. Melik: (listing items Miles had requested for breakfast) «... wheat germ, organic honey, and... Tiger’s Milk.»

Dr. Aragon: «Oh, yes. Those are the charmed substances that some years ago were thought to contain life-preserving properties.»

Dr. Melik: «You mean there was no deep fat? No steak or cream pies or... hot fudge?»

Dr. Aragon: «Those were thought to be unhealthy... precisely the opposite of what we now know to be true.»

Dr. Melik: «Incredible!»

Comically improbable as this fictional situation may be, almost equivalent stories can be found in the not-so-distant, real, past. Take margarine. For decades, American cardiologists have been prescribing their patients to replace butter with soft margarine, for the sake of polyunsaturated fat. Then came the study from Holland showing that the processing of soft margarine actually involves a not-so-friendly by-product: trans-fat. In other words, cardiologists had been strongly recommending that their patients consume a substance that would eventually be indicted as one of the worst nutritional culprits, one that Mayor Bloomberg of New York would actually ban from the city’s restaurants a few years down the line...

Similarly, at the end of the 19th century, Atwater and the most distinguished MIT scholars in the emerging discipline of nutrition thought they should reform the diet of New England’s working class. They established the “New Eng-

land Kitchen”, inspired from German “people’s kitchens”. The idea was to improve the blue collars’ diet using the latest findings of the new nutrition. New England’s working class was to be shown how to cook cheaper cuts of beef into slowly simmered stews. For laborers, the New England Kitchen recommended, in the light of the time’s nutritional knowledge, high calorie content, hence fatty cuts of meat and little if any vegetables: as vitamins were not known, they seemed to offer nothing but undigestible fiber and water... The New England Kitchen failed to attract much interest from the “New England working class” – in fact a patchwork of ethnic groups from various parts of Europe not particularly keen on four or five-hour stews. Considering what we currently know (or believe) about fiber and saturated fat, their reluctance might have been for the better... (3). Scientific truths are, and should be seen as, biodegradable.

The second implicit assumption is actually a set of assumptions and it has governed most of public health policy and intervention in the last decades. When poor nutrition is diagnosed, it is (implicitly or explicitly) assumed that, 1. the cause is the individual’s poor behavior; 2. eating behavior is the net sum of individual choices; 3. the solution is to help individuals make better

decisions or choices; 4. obstacles to success in this respect are ignorance, commercial pressures, lobbies, advertising. As a consequence, solutions seem obvious: communicate to individuals about good nutrition, improve their knowledge, which in turn will lead them to behavioral change.

The problem with these assumptions and the actions and policies they inspired is that they simply don’t work. As the former chairman of WHO’s task force on obesity recently stated, “Recent rigorous analyses show that individualized advice to reduce intake and take more exercise is an exceptionally poor way of ensuring that a population does not gain weight. The unrelenting epidemic reflects the presence of a “toxic environment” where the need for physical activity has almost been eliminated by cars, mechanical aids at work and in the home, TV and computers, etc.” (4).

The reason interventions based on the assumptions do not work is that humans do not just eat according to individual “informed choice” and “preference”. They are subject to beliefs (religious or other), usage, to tradition and socially determined eating patterns. They eat, not nutrients and calories, but foods, dishes, meals and they do so in specific places, at specific times and with specific people with whom they have interactions

and relationships. Eating is not just individual behavior; it also consists of social practices and rituals. In short, eating is determined not just by individual rational choice but also, and to a large degree, by culture, which operates, as it were, as an implicit script. Typically, when asked by anthropologists why they do something the way they do it, people’s answer is: “We’ve always done it this way”.

A third implicit assumption is that of the existence of something typically referred to as “modern Western diet” and often associated with the nutritional transition. The following quote, in my view, illustrates the implicit assumption: *«The cultures of societies are underestimated determinants of their population health and well-being. This is as true of modern Western culture, including its defining qualities of materialism and individualism, as it is of other cultures. [...] materialism and individualism are detrimental to health and well-being through their impact on psychosocial factors such as personal control and social support»* (5).

On the one hand, the author complains that «cultures of societies» (note the plural) are «underestimated determinants»; on the other, he goes on to refer to “modern Western culture” in the singular, as if cultural diversity were the exclusive feature of “non Western” societies. Yet evidence is there may be

common features in Western, developed societies but there is no such thing as one modern Western culture. In order to support this statement, I can refer to various data.

First, differential epidemiological data themselves are often overlooked when a “hot” topic such as obesity is discussed. It is somehow taken for granted that whatever happens in the United States is bound to reach the rest of the world, particularly the Western world in the following years if not months. Thus the spread of obesity in the US is offered as self-explanatory evidence for “contagion” in the developed world. Yet there exist considerable differences between prevalences in the “Western” world, let alone the developed non-Western countries such as Japan. France, in particular, is a case in point, with the lowest prevalence of obesity in Europe, low prevalence of overweight, yet unusually high rate of underweight (mostly women) (6). A very recent review and analysis of survey data globally available since the 1980s shows that, in that period, France experienced the least increase in obesity rates among affluent countries (7).

These epidemiological specific features coincide with clearcut cultural peculiarities, which might well have some degree of relevance in this respect.

France seems to have particular attachment to mealtime and commensality. Of all the developed countries, France has experienced the least decline in time spent eating (8). Empirical data show that meal patterns in France, unlike several other neighboring countries, have kept their diachronic three course structure in spite of overall simplification. Commensality, reflected in part by strictly kept mealtimes, is perceived by respondents to surveys as one of the keys of “eating well” (9). The national time use surveys of France and the UK show that, on any given day, at 12.30, 54.1% of the French are eating; a similar peak occurs in the UK at 1.10 PM but only 17.6% are eating (10). The French are not just eating at the same time; they are also eating lunch and dinner together with commensals in about 80% of the cases (11).

This comes in strong contrast with trends observed in other, similarly developed, countries in which food intakes are more scattered during the day and individualized. Our own comparative data show that French, Italian, Swiss samples are more concerned with quality produce, tradition and happy experiences of social eating, while American and British samples manifest both attachment to, and anxiety over, free and responsible individual choice (12). Typi-

cally, Americans express more attachment to individual extensive choice than any of the other samples in the five-country survey (12).

Cultural diversity is no less of a reality among developed nations than it is in developing countries. This diversity should indeed be taken into consideration, as well as socioeconomic differentiation within countries – a major factor in the distribution of health and illness in general, of obesity in particular. Rather than blindly spreading alarm over the “obesity epidemic” around the corner, one should delve into the differences, if any, and the specific features of the local culture that might help explain them – thus possibly helping preventing the “contagion”. Public health policies have long been aimed at individuals, urging them to change their behavior and make “rational, healthy choices”. This may have produced more adverse than positive results. Medicalization and individualization of food and eating by both the industry (health and nutrition claims) and public health (guidelines for “the people” aimed at individual behavior, food pyramids, etc.), both echoed and amplified by the media, lead to a “nutritional cacophony” and various degrees of anxiety associated with questionable diets, eating disorders and no reduction in the prevalence of

obesity. If anything, the US case suggests the opposite seems to be true. Actual behavior is generally not effectively modified in those categories of the population in which improvement is most sought. As we have seen, historical evidence shows that, all things considered, this might be for the better, as progress in scientific knowledge often reveals that success might have done more harm than good). Most campaigns and public policies so far have been based on implicit assumptions that were wrong, in particular that eating is just another form of individual, private consumption. In most if not all societies on the planet, eating is done in a social context. The procurement, distribution and sharing of food and the social regulation thereof are the basis for much of social organization in human societies. Individualization and, as it were, privatization of

eating in plethoric societies may carry more liabilities than benefits while there may be long unsuspected benefits associated with the sharing of food in the common meal.

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