THE CONCEPT OF "MELO-PSYCHO-NUTRITION" (MPN), IN PSYCHO-GASTRONOMY STUDIES

Romulus GRUIA¹

Abstract. The paper centers on the achievement of a unitary psycho-gastronomy concept on direction of the phonic impact upon nutrition. There are aggregated a series of fragmentary observations of gastrophysics linked to the psychologic impact of musical sounds in relation to the feeding manner, to gastronomy. The paper methodologically approaches vibrational frequencies in the relation between harmonious sounds and living organism. There are defined the phrase "organismic meloimpact" (for all positive, neuter or negative situations, at all species) and "melotherapy" (when the effect is positive, especially in relation to the human species). There is defined the concept and highlighted the melo-psycho-nutrition method necessary to the harmonization of all the elements of the process of organismic meloimpact, with consequences in equilibrating the metabolic balance regarding nutrition and food assimilation. There is taken into consideration productivity growth at planetary level, or in animal production, as well as the improvement of the dynamic balance regarding food digestibility at the human species, as final element in the trophic chain. As for man and human society in general, there are mainly analyzed aspects linked to the finality of the alimentary act by culinary production, in relation to the problem of psycho-gastronomy. There are exemplified certain practical applications at the level of the restauration system and, in general, in the hospitality industry.

Keywords: gastro physics, food, Melos, nutrition, psychology

1. Introduction

We specify that gastrophysics has recently entered among sciences, and its demarche to reveal how our senses combine between themselves and even reciprocally condition, in order to influence perception upon what we eat. There is practically analyzed the combination between gastronomy and psychophysics in order to search the multitude of ingredients (apparently peripheral ones) that influence our organoleptic perceptions (of flavor, of taste etc.). Thus our culinary choices may be directed so that we may make the difference between a "memorable meal" and one that may be forgotten.

Prof., PhD, Transilvania University of Brasov, Romania (ecotec@unitbv.ro; romulus.gruia@gmail.com)

Corresponding Member of the Academy of the Romanian Scientists.

Gastrophysics is in essence the new science about food consumption beyond what ordinary food means [8], demarche that presents itself as a full of interesting promises research field, practically many sciences and study fields benefitting from its fruit (dietetics, neurology, psychology, sociology, public health, marketing, design and others).

In other words, in order to take maximum advantage of every menu, we will have to "think not only about what is in our mouth, but also about what is in our mind".

We practically direct towards gastronomic psychology, biomedically based on psycho-nutrition (*nutritional psychology*), i.e. the link between emotions and the way we eat. We are speaking about the psychology of food consumption, respectively nutritional psychology, which is the science of the manner nutrients affect the state of mind and behavior [14, 15]. This field examines the relation between food and our inner experience, enlightening the physiological and biological mechanisms, influenced by the nutrient contribution that stay at the bases of our mood and behavior [4, 5, 6, 9, 11, and others].

In fact, our senses interact in order to offer us the complex feeling we have whenever we eat or drink something. Eating is a multi-sensorial experience, implying much more senses and much more impressions than it was thought [12, 13]. That is to say not only the taste, the sense of smell and the aspect of a meal, but also different exterior factors (as for example musical sounds) with no connection with food indirectly "affect" the respective food, making it seem better or less good.

All that has been said is based on numerous examples, so that the starting point in the scientific demarche of **gastrophysics** is represented by observations and questions from the reality of the gastronomic field. Without entering into details, we enumerate some ascertainments and questions: white wine seems better in a room lit in red or blue; it seems that we are quicker fed up and feel we have eaten more if we eat from small dishes, than if we eat the same helpings from large dishes; that the weight of the utensils we are eating certain complex food with influences us, as well as the position of the food on the dish, even without knowing anything about the respective food. We can also enumerate a series of questions: Why on planes it is drunk more tomato juice (27% from the bought drinks)? What is the effect of serving food on small plates, or red ones, or circular ones? Why we eat 35% more food whenever we eat with another person and 75% more when there are three persons at table? What is the influence of food smell upon the human brain? We speak here about aspects linked to "human brain flavor system", developing a new scientific field: neurogastronomy [7]. Then,

what is the influence of background music? This last question being the subject of the present study too.

In this context, we may analyze the **ambiance** of the place we are eating in, taking into consideration the psychological impact [3]. Therefore, a food taste does not mean everything. We participate at the eating act with much more senses than we used to think and there is a large number of elements that influence what we think and feel about that food. There become important: the music we are listening to, the light around us, the color of the dishes, the utensils size, even the name given to the food we are eating – everything influences our and may subtly make the difference between an "acceptable" meal and a great one [1,10].

Psycho-gastronomy has ancient roots. One of these, linked to *sound perception*, shows that, starting with ancient customs, as for example spells (white magic) practiced in old times, they are whispered, emphasizing certain key words by incantations, that give off a certain frequency that resonate with the human organism. Not to mention the text messages, when music is also accompanied by words. Nowadays incantation has lost part of its force to penetrate the human psyche, but there become relative a balancing relation by "restaurant music" in relation to the eaten food (what type of music assures a better pleasure, creates harmony or, more directly said, a better psychic state and a better digestion? Or it has a negative impact?).

Taking into consideration what has been exposed, the paper has as an **objective** the study of sound perception and their psychological impact in relation to the feeding manner, to gastronomy.

2. Material and methods

The research methodology is based on VIBRATIONAL FREQUENCIES, on other physic principles and, especially, on the quantic mechanics demarche. The sound study and their parametrization have as an analyses element the indicator: *Hertz (Hz)*. It is known that this parameter indicates the number of cycles per second of the respective band and man has the capacity to perceive frequencies between 15 Hz and 20,000 Hz. There are approached study methods of sensorial analyses, neurogastronomy principles and gastrophysics concepts.

3. Results and discussions

Recent studies try to rehabilitate from scientific perspective the **music influence** upon organism, obviously complementarily with the psychological impact. Therefore, we are mentioning that sonorous wave action is known both upon plants which germinate and grow better, and milk productivity, at cows when music is sung or listened to in their stables. Thus there are rediscovered multiple virtues of music: it doesn't have only a part, a cultural esthetic function, as certain

people may think at first sight, but also a magic, PHYLOSOPHICAL FUNCTION, of *organismic impact* and even a *therapeutic* side. From here also the phrases "organismic meloimpact" (for all positive, neuter or negative situations at all species) and "melotherapy" (when the effect becomes positive upon metabolism, especially in relation to the human species).

A new light is given by **quantic mechanics** that generally admits that **matter is nothing but** *vibration*. Decomposition in the smallest components practically leads to the existence of *particles and bands*. Atoms (nucleus and electrons that rotate around it) confer each substance, by number, the electrons and their orbits, a specific set of **vibrational frequencies**. From here one may deduce that nothing is solid mass, just nucleuses surrounded by bands that endlessly rotate. "All is in movement and vibration" (from time to time) with an incredible speed [2].

There may be considered that every being at individual level (organism) vibrates at a certain low frequency, in fact similarly to all things that are in vibration and vibrate at their own frequency. *Food* is not an exception, it has of course its own frequency, and here being a generous space for research.

The fact that everything is in vibration implicitly means that all that exists creates and gives off sounds. Extrapolating, we can say that particular frequency of all food and organisms may be interpreted as being a sound and, from here, their parametrization by indicator Hertz (Hz). The human being intrinsically has a frequency universe that superpose and the result is a "symphony" having cosmic proportions, being thus able to resonate with the rest of the world, therefore including, and maybe more directly, FOOD.

The process practically indicates that sounds having the same frequency enter in resonance, i.e. there is produced a low frequency sonorous band (which is called resonance), from where we may deduce that THE ORGANISM AND FOOD ARE IN RESONANCE, meaning that vibrations that characterize them attract one another and interact between them. More than that, vibrational frequencies inevitably lead to balance or lack of balance. When frequencies are fundamentally incompatible, they can't enter in resonance. But after the theories of the Japanese Masaru Emoto (2006), resonance may also exist when frequencies are not identical, and most of the things in nature give off stable frequencies. Harmony becomes thus possible and, why not, in our opinion, the harmony organism-food by organismic meloimpact or, as the case may be, by melotherapy.

If we introduce into the equation all the described elements, we may launch the hypothesis that leads to the idea of superposing principles, so that we may treat music in relation to nutrition, by the "melo-psycho-nutrition" concept.

Music and its virtues, with benefic, healing effects, may reach the level of *therapy through music*. Therefore, **melotherapy** is the method cure or to attenuate

symptoms by listening to music. On the other hand, from a technical-biological perspective, we may sustain that *the organismic impact by music* has stimulative effects upon the organismic physique (at all kingdoms) and, of course, upon psyche too, in case of men. From this perspective, in our opinion, **joining the musical sound to the food act** in relation to the body impact and the human psyche, we may define the *"melo-psycho-nutrition"* phrase.

MELO-PSYCHO-NUTRITION (MPN) is the concept based on the analyses of the sound impact upon different persons, in the idea to stimulate men's organism by "Melos" both from the "psycho-metabolic" perspective in relation to digestion, and "psycho-hedonic" one in relation to the welfare offered by food, with the enjoyment or with the pleasure to eat, as well as the extension in the infrahuman world to stimulate productive performances of animals or plants, through music in relation to the feeding act and different reflexes.

The direct observation linked to men's food manner habits show that no wonder it has gained ground that in public houses having a meal is accompanied with music (as a rule, accompaniment music or pop, jazz or musical shows). This tandem "music-food", beyond the usual pleasure, may be approached by the MPN concept which introduces a series of **experimental perspectives and work hypothesis.** Thus, we will start all from observations and questions: What music has the virtue to stimulate or heal (melotherapy)? What music has a negative impact (disruption of digestion etc.)? What rhythm does it have and in what relation is it with organism biorhythm? In what ambience is it listened to (in a restaurant, in a bar, in special halls etc.)? What are the listening conditions? Which should be the appropriate sound level (as a measure in acoustics in decibels / dB) and others. Therefore we open a study "slope", where many experiments are still necessary.

Without entering into details, we consider as a research way in MPN the idea that music has the capacity to **induce info-energetic balance** through the *bioresonance* phenomenon induced by sound vibrations, probably especially by instrumental music. This one because the "wordless" meaning of music is the one to confer it power and value, as one communicates through music: all human feeling scale, natural phenomena, suggestion of seasons, of day and night moments with their ineffable fascination, wonderful landscapes, force, energy mobilization or, on the contrary, their dissipation, their waste in the galactic ocean.

Thus we may "prosaically" experiment both the effect of the "melodic field" (Melos) upon organism, and, as for nutrition, *food vibrations* upon organism, as well as harmony (or disharmony) commonly created upon organism, of *musical*

ambiance during meal. We are referring to a compatibility and complementarity of music vibrations with the vibrations of the alimentary act (of food and of digestion) based on the melo-psycho-nutrition concept. Applying the MPN methodology we launch the hypothesis that food encoded acts (probably through bioresonance mechanism) and one may consider them as a "melody". The concatenation of vibration frequencies characteristic for the analyzed organs is unique and it must resonate with the specific "melody" offered by the environment (i.e.: food together with musical ambiance), releasing necessary energy to decode vibrations for nutrition high efficiency (or to start the remedy, in case of organs with certain injuries).

Another element of the MPN concept refers to **the biological rhythm and the musical one.** It is the essential element that confers the comfort or discomfort estate and that connects the audience (listener) to the time feeling. It is known that, during intrauterine life, the fetus listens to his mother's heart beating. It is to this rhythm that he gets used in a context of maximum protection at body's temperature. The drums' rhythm at primitive peoples is exactly this rhythm, and in medieval and classic music we find the well-known rhythm from our life beyond memory, deposited beyond the back of our mind.

The melody and rhythm problem seem to be better known in the **restauration system**. Thus, in public houses it is recommended as a rule to listen at least three musical pieces, their choice being made in function of the type of consumer. We are referring to the educational level, musical culture, affective estate, kind of event one participates at, the moment along the menu and, if the case is, to the diagnostic (in therapy, when man is sick). As an observation, it is recommended that, during the audition, the environment temperature be of 20-22°C (with limits between 18-24 degrees).

The **melo-psycho-nutrition** concept (as well as melotherapy and other methods of the organismic meloimpact), has immediate practical applications. Its principles and methods may thus be used, both in prophylactic aim and in curative aim. From this perspective, in the future, when studies have confirmed, the gastronomic specialist is the one to be able to select musical fragments in function of the menu and consumer (!).

Therefore, to create "ambiance" in a restaurant is in fact an application of psychogastronomy too. Thus, choosing a melody, arranging the tables, the form of the dishes, the color of the table napkins etc., are only a few examples in that direction. There are studies [16] that show how color (including the color of the napkins) psychologically influence the dish taste. Probably problems still need to thoroughgoing study, but the beginning shows that pink napkins increase sweet

taste perception, blue napkins increase eggs and Indian spicy food flavor, and orange or yellow napkins will reduce salinity sensation.

Therefore we speak about (multiple) integration elements through which alimentation is studied and defined from balance and harmony perspective. We are referring thus to *integronic dynamics* of the alimentation processes [3], taking into account its nutritive, metabolic, genetic, ecologic and psychologic components, specific for the alimentary act. The **Melo-Psycho-Nutrition** (MPN) concept is therefore a specific and implicit component of *modern cuisine especially based on health-generating principles that* contribute to harmonize the food manner in relation to mind and emotional balance, i.e. a distinct side in *integronic alimentation: environment - food - organism*.

Conclusions

- (1). The study of sound perception and their psychological impact in relation to the feeding manner, to gastronomy, shows that every organism vibrates at a certain low frequency, but also at its own frequency, which may induce the compatibility and complementarity of music vibrations with the alimentary act vibrations (of food and digestion) based on the principles of melo-psychonutrition (MPN) concept.
- (2). Melo-psycho-nutrition is a method of *organismic meloimpact* to stimulate the human organism through sound, both from "psycho-metabolic" perspective in relation to digestion, and "psycho-hedonic" in relation to the welfare estate offered by food, to enjoyment or pleasure to eat, and in the infrahuman world, of stimulation of animal or plant productive performances through music in relation to the feeding act.
- (3). The application of the melo-psycho-nutrition concept may be found in the complementarity between musical circuits and the touring program themes (i.e. well professionally programmed restaurant music, musical fragments being selected in function of the menu and consumer), that may lead to satisfaction, or even to exceptional feelings, which makes the melo-psycho-nutrition process be an implicit component of the health generating cuisine, thus contributing to the harmonization of the food manner in relation to mental and emotional balance.
- (4). Empiric observations linked to a better nutrition and digestion in relation to a certain melody induce the hypotheses that especially classic music harmony will have a beneficial effect (experimented in animal breeding to stimulate milk production), which concerning the human species imposes further thorough researches, especially on direction of parametrization and quantification at physical and mental level.

REFERENCES

- [1] Albesteanu, V. in OUT4FOOD No.20 (2016).
- [2] Emoto, M., Mesajele ascunse din apă (Messages hidded in water). Adevăr divin Publishing House, Brasov (2006).
- [3] Gruia, R., Integronic Food Concept, Journal of EcoAgriTourism, Publishing Transilvania University of Brasov, Romania, Vol.10 (1), 211-218 (2014).
- [4] Jarvis, William T. Food Faddism, Cultism, and Quackery. Annual Review of Nutrition. **3** (1): 35–52. doi:10.1146/annurev.nu.03.070183.000343. PMID 6315036, 1983.
- [5] Kiesel, Kristin. Nutritional Labeling and Consumer Choices. Annual Review of Resource Economics. 3 (1): 141–158. McCluskey, Jill J.; Villas-Boas, Sofia B. (2011).
- [6] Lusk, Jayson L., Roosen, Jutta, Bieberstein, Andrea, Consumer Acceptance of New Food Technologies: Causes and Roots of Controversies. Annual Review of Resource Economics. Vol. 6 (1): 381–405. (2014).
- [7] Shepherd, G.M., Neurogastronomy: How the Brain Creates Flavor and Why It Matters, hyyPaperbook, Kindle Edition, July 23, 2013. https://www.amazon.com/ (Jan. 2019).
- [8] Spencer, Ch., Gastrophysics: The New Science of Eating, Viking, Imprint Penguin, 15-28 (2018).
- [9] Spurlock, Morgan, Super Size Me, 2004. https://en.wikipedia.org/, (2016).
- [10] Stănescu, Mihaela, Mâncarea perfectă: hrana și enigmele minții umane (The perfect food: the food and the enigmas of the human mind), Descopera.ro, 2014. http://www.descopera.ro/stiinta/ (22 Oct. 2014).
- [11] Zimmerman, Frederick J., Using Marketing Muscle to Sell Fat: The Rise of Obesity in the Modern Economy. Annual Review of Public Health. **32** (1): 285–306 (2011).
- [12] *** Definition of NUTRITION. www.merriam-webster.com (25 March 2016).
- [13] *** Definition of PSYCHOLOGY. www.merriam-webster.com (25 March 2016).
- [14] *** Adult Obesity Facts Data Adult Obesity DNPAO CDC. www.cdc.gov.(7 April 2016).
- [15] *** Food Facts home. www.bda.uk.com (9 April 2016).
- [16] *** Stylists Linda Lundgren. http://www.agentbauer.com/ (Feb.2019).