

# METABOLIC MIND AND PRIMORDIAL INSTINCT. FROM BIOCHEMISTRY TO THE EMBODIMENT APPLIED TO NUTRITION. VEGAN INTEGRATED DIET. ONE STEP FORWARD

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■ **KEYWORDS:** metabolic mind, pH Zone, embodiment, vegan diet, cultural anthropology, psychoanalysis, hermeneutics of the suspect

## ABSTRACT

*In this era when the whole world is in a psychotic recession, where Covid-19 feeds on human substrate unprepared for the "pandemic state", the only real salvation is listening to one's metabolism. It is not a title from Hollywood, it is a real lockdown of the human race which, once again in history, demonstrates its ineptitude which, by syllogism, would mean a lack of resilient property. A resilience not in relation to a material, but metaphorically projected to a reflection where man, the only protagonist endowed with intellect, once again makes the same mistakes by entering the usual loop that punctually repeats itself every decade.*

*Mind and body seem to be no longer distinguishable and have lost the structuring quality that their role determined and made possible constructive actions on the world. The distance between observer and observed, between mind and matter, has faded as if to cruelly provoke a loss of consciousness and identity crisis, hindering the creation of new models, theories and correlations that allow to act in this world. Neuroscience is shedding light on crucial aspects of the nervous system, such as the modalities of neuronal growth and selection of unused synapses (Edelman 1987), as well as the effects of learning or repeated and recorded experiences, on metabolism and cellular gene transcription (Kandel, Scharz, Jessel, 1991). Psychosomatics with a view to multifactoriality and interdependence for mind-body study are the key points for the study presented here.*

## ■ INTRODUCTION – NUTRITION AND METABOLISM

The food sciences and the sciences of human nutrition are recognized as "science", thanks to the analysis of biochemical phenomena, which take place in the human body as a result of food ingestion. After all, it might seem reductive to synthesize so much huge evolving science into a few simple words. In fact, scientific research in the food field has begun long before the boom of the economic big bang era. The study of "unconscious individual science"<sup>1</sup> of human nutrition began, in fact, long before the historical dating of the first studies. It's possible to imagine the figure of the "paleo-scientist"<sup>2</sup> observing, seeking, savoring, reacting to nutrients, reacting to stimulation caused by food: therefore, the awareness that foods are all capable of causing metabolic reactions has

born before the classic known scientific studies on the subject. The Paleolithic man certainly did not care about the study of the chemical composition of the foods around him, but it fed of what nature offered him without realizing that every action wanting to find a food or feel the need to ingest food, came from different stimuli, far from the calories regimes, very close to pure metabolic instincts, creating the basis for the concept of the metabolic mind. This paper does not focus on how we (as a society) got to create such a wide range of diets and eating styles, sometimes following a second-class fashion, but on how to study a particular diet, that is vegan, and on how it can actually contribute by adopting the concept of integrated food, proactively for the health of the human being.

<sup>1</sup> The Author want to say that the human body intended as a machine (mind integrated machine) has started the process of the biology and biochemical study a lot of time before the real creation of the science of nutrition understood as teaching of subject matter.

<sup>2</sup> It is a term of new conition for the description of this individual that contains a set of specific characteristics that denote the ability of the human being to be a scientist for himself in the perception of particular sensations.

## ■ RESEARCH AND DISCUSSION

Analyzing the evolving phenomenon of vegan eating created for a more “human” and healthy purpose, where industries have rode the wave of business, creating a machine of destruction instead of saving and preventing human health, we can realize how this food style can actually benefit in terms of the human machine. As far as the study of one’s metabolism is concerned, it is undoubtedly to be consciously face a diet and/or dietary programme in order to achieve a certain goal without being aware of one’s starting point, such as the status of anthropometric values and body composition as weight, circumferences, BMR (basic metabolic rate), pH, BCA (Body Composition Analysis) - included but not limited to them. It’s necessary to analyze the metabolic history of individuals in order to be able to draw up a perfect food program with the aim of maximising healthy results. On this occasion, the publication “pH Zone – Il segreto per vivere più a lungo” (Fontana M., 2014, Millennium Editrice) where it has been widely discussed in analysis to be carried out and which experts to rely on for the achieving an optimal state of health, adopting the lifestyle (nutrition, training, food integration and detox).

## ■ METABOLIC MIND

Moving forward to the discussion of this paper, it’s important to specify the importance of this new scientific term or pseudo-word that here is coined and claimed, where the phrase as stated refers to a kind of mind-brain-fulcrum that governs a certain metabolism. In terms of scientific, and in particular biochemical processes, metabolism represents a set of chemical reactions that generate products that can be used as such or become reagents for other reactions, generating new products. All of these cycles of reactions are governed by a basal metabolism and a series of intrinsic and extrinsic factors to the “human machine”. Therefore, they are triggered by events within the human body as such, which is a set of organs and living substrates, whether from unforeseen or sometimes unnatural events react products that are harmful to the metabolism itself. All of which is well managed in a non-voluntary manner, that is, by ousting the brain’s ability to manage such reactions. After all, -we are machines, good machines, still machines-<sup>3</sup>. Insights and studies have led to understanding how the human body, despite being an automaton that performs millions of reactions at the same time, can be partially managed by a “metabolic mind”. This concept, in fact, is not easy to explain except to people who have already experienced feelings common to that of chemical reactions within their own metabolism. Yes, it urge to pay attention to this definition as you do not want to intend to refer to the body mind connection, tantra, karma, yoga, but the path on a thin perceptual line that gives power to the mind to capture the reactions that are taking place in metabolism and to put the right nutrients and then feed it, at the right time, in the metabolic furnace.

Basically, it’s possible to figure out what are the right

nutrients to give as a meal to metabolism at the right time, but for the fact that the mind-body correlation is not so exhaustive in itself expression, that will not usually happen. In fact, after a physical effort (for example after a workout session) the human being feels the need to ingest something without knowing in fact what kind of nutrient or food load with a specific group of macronutrients class has to. The recognition of a state of “deficit” by the subject concerned could be distorted (sometimes unnecessary), actually ingesting a group of nutrients not functional to that metabolic situation, although the caloric satisfaction in itself is still satisfying.

## ■ HORMONES THAT REGULATE THE SENSE OF HUNGER – A BIOCHEMICAL FRAMEWORK

Ghlin is a peptide composed of 28 amino acids and is produced mainly by cells at the bottom of the gastric mucosa (in the stomach). Once secreted in the blood, it reaches neurons in the arched nucleus and hypothalamus, where through receptors it stimulates the sense of hunger. The production of ghrelin is regulated by the presence of leptin, so only the decline of this hormone allows the stomach cells to produce the specific hormone of hunger.

Leptin is a hormone produced by adipocyte cells (of fat) during assimilation of lipids transferred by lipoproteins (Vldl, Ldl, kilomicons). This messenger, in addition to inhibiting the production of ghrelin (not making us perceive hunger), acts on the functions of the thyroid. In fact, it is able to stimulate the hypothalamus at the release of Thr, which will cascade down to the relative increase in the production of thyroid hormones. On the contrary, in case of famine (or simply skipping a meal), the thyroid will be stimulated by leptin to decrease the production of thyroid hormones, causing our body to lower calorie consumption. The mechanism of leptin is among the most studied by scientists dealing with obesity. In fact, obese people should feel full, while in fact they are suffering from a perennial feeling of hunger. The anomaly consists of a strong production of leptin but that fails to act on the target cells (those that produce ghrelin). In this case we can talk about leptino-resistance.

Gallocytolchinin is a hormone secreted by cells in the first part of the intestine. Its secretion regulates the release of bile and pancreatic enzymes and in particular acts on vagal stimulation, determining the sense of satiety. It is also able to slow the emptying of the stomach leaving the small intestine time to better digest fats and proteins. For this reason, the release of gallbladder is stimulated by the intake of fats and proteins, but not by carbohydrates. This hormone, while not in direct relationship with the other two hormones (ghrelin and leptin), is the main actor in determining satiety, preventing us from eating until burst. The sense of satiety is then maintained by the leptin which has an absolutely longer reaction time, but lasting over time (“relay effect”).

From a disamine of lifestyles and primitive habitat we

<sup>3</sup> “machines, good machines, still machines” it is a way how the author of this paper desire to represent the concept of human body as a machine. About this particular description the author wants to do a parallelism used in the study of law that says *lex, dura lex, sed lex*. That should inspire the reader about the thought of human as machine, but without losing from the original view the power and great value of the human as a self scientist.

need to consolidate the idea that primitive man hasn't ate insulin related carbohydrates and the production of leptin has been constant and long-lasting over time. The rapid development of consumption, even though thousands of years have passed, seems in any case unnatural, especially in the last century, where the production and consumption of refined foods is constantly on the rise in a market regulated by "dictat" of the idealization of false "social gurus".

These are due to a series of anti-health tendencies and at the same time perfectionist tendencies resulting in bigoted-like phenomena in most cases at the mercy of capitalism and the "Big Pharma Industry". Of course, nature has not considered such an extraordinary and sudden change in our diet.

It is not rare to hear about standard protocols to follow, such as taking proteins in the post-workout phase, as it is believed that the window to ingest the food, will be open within an hour by the end of the training, or taking vitamins in the morning to start the day with a big amount of vitamins, sometimes taking an extra portion. Those habits are actually not very appropriate: in fact, extra vitamins and proteins will be expelled through the urine during the day without any benefit. Additional food "conventions" that should not be given much importance are to be found in the association of carbohydrates sources and/or proteins as the actual effectiveness depends solely by the uniqueness of the metabolisms themselves. Just thinking, in fact, variants of dissociated or overproteogenic diets are followed by many people just because they're advertised or recommended. Recommendations in most cases are completely wrong because the result and effectiveness factors depend solely by the factor -customization - personalization and individuality. This trilogy is in fact the key and the critical points of discussion of this article, as no one knows their own metabolism better than themselves. On the other hand, it's possible to fully understand the concept of metabolic mind only following an academic nutrition course setted up "ad hoc" by a professional who takes in analysis all the factors that have been previously analyzed. It would be absurd, by virtue of the subtle concept of the mind, to create an individual and own made food program. In conclusion, this new concept should only be pursued in synergy with a professional in the field, who will learn more about it, in synergy with patients and caregivers, the metabolism that will gradually be refined according to needs and objectives. It could be possible to assume in the future that it will be not necessary the support of a doctor to follow a perfect power supply for a "body machine", except cases where will be present pathologies to monitor and/or medically treat. Once again, the readers are invited to read carefully this innovative concept with a key reading that knows how to discern improvisation from the methodological-scientific approach, always relying on experts in the field to learn gradually and progressive, metabolic consciousness.

■ **VEGAN FOOD AND VEGAN FOOD SUPPLEMENT INTEGRATION**

The term vegan diet refers to a diet without meats and food derived from them (animals) and/or in any case industrialized. The "new integrated Vegan Food diet" means a diet that, although containing animal meat, can be integrated partially by vegan foods against excess of animal fats and therefore

**Breakfast:**  
*1 slice of wholemeal bread (30g ca) plus 1 teaspoon peanut butter or cashews; 1 protein shake with 30g of Vegan Protein (rice, soy, peas, potatoes).*

**Mid-morning snack:**  
*A handful of oily fruit (recommended: almonds, Brazilian nuts, oats, soy or rice milk (200ml ca).*

**Lunch:**  
*A serving of tofu with asparagus and/or steamed broccoli;  
 One serving (150g ca) of fruit to taste.*

**Afternoon snack:**  
*1 vegan bar (40g ca).*

Dinner:  
*A large portion of legume soup and/or minestrone.*

**Daily toppings (20-30g):**  
*Extra virgin olive oil, flax or biological hemp.*

**During the day you can drink yourself green shakes.**  
*"The scheme of integrated vegan nutrition or diet", on the other hand, provides for the replacing an above meal with a meat-based dish (150g ca) or derivatives (e.g. eggs and cheeses).*

**Tab.1 - Example of integrated vegan diet:** The reported prospectus was drawn up by virtue of the new concept of integrated vegan nutrition by observing the concept of the metabolic mind. Moreover, this scheme should not be understood as a prescription, but rather an example scheme for the purpose of the study in question.

in favor of vegetable fats and anyway by means of an integration of alternative foods that are able to sometimes bring more vitamins and minerals than carnivorous or omnivorous food. The power of vegan's supply was born for pure and ideal purposes against killing and exploitation of animals for human consumption. This idea has inevitably given rise to animal movements and environmentalists, creating a line of thought and a market need that is still growing. This food line was adopted by certain specific people for taking care of diseases, allergies and intolerances. The creation of these alternative foods has given rise to real superfoods (in addition to the biological added value), which certainly has "given benefit" to the metabolic human machine system. It is in this scenario, also, that vegan supplementary diet and the previous concept of metabolic mind marries to the vegan one. It's necessary in this evolutionary history of nutrition, as eating habits change, to adopt a nutrition scheme, giving space to vegan foods. Not infrequently, in fact, some physical body, thanks to the "metabolic- memory- mind", require integrated vegan diet or completely vegan. As a result, in support of omnivorous and carnivorous food, are now welcome vegan supplements, as they provide more nutrient sources such as protein and vegetable fats. The pharmaceutical and food industries are focusing today, much more than before, on a market-oriented need to vegan and organic sector. In fact, those companies started producing vegan supplements, support "vegans" and omnivores as scientific studies evidence that supplementation with plant-based food sources (protein decreases under standard conditions,



compared to the previous foodstuffs styles,) reduce the risk for system-related diseases, like cardiovascular disease. That type of approach also generate less waste (intended as biochemical waste production), facilitating the digestion of the food itself, overloading fewer target organs such as kidneys and liver.

### ■ THE METABOLIC MIND: AN ANTHROPOLOGICAL AND PSYCHODYNAMIC PERSPECTIVE

As for the implications on the level of cultural anthropology, a useful reflexive paradigm capable of translating the psychological continuum between the metabolic mind and organic processes in the existential sphere, is offered by an interesting ethnographic perspective proposed by the Italian thinker Ernesto De Martino.

The rekindling of Ernesto De Martino's interest in ethnological studies has shed light not only on the importance of a socio-anthropological approach in the humanities, but also has awakened the attention of historians on such a preponderant personality (and for certain controversial verses), despite the brevity of his existential experience.

Already, in fact, the first writing by De Martino (published at just twenty-one years in the "Rivista del G.U.F. napoletano Mussolini"), with the significant title "La decadenza dell'Occidente", i.e. "The Decline of the West", offers a valuable overview of the thought of the Neapolitan anthropologist who, in dialectical controversy with Oswald Spengler, author in 1923 of famous "The Decline of the West", on the one hand recognizes the effective validity of Spengler's theses on the crisis of our civilization; on the other hand, as underlined by Professor Domenico Conte in his precious work of 2010 on the young De Martino, he does not hesitate to insert this discourse in a palingenetic dimension within which the West can and must rise from its ashes.

A rebirth is therefore possible only in one condition: "re-barbarise Europe", that's to say, fighting against "the essential development of our critical capacity"; The clarity of the arguments of the young De Martino emerges with explosive force, pushing in the direction of an anti-Illuminism and anti-Kantian irrationalism and which finds its ultimate request in the "faith" and in the foundation of a real "civil religion".

The repercussion of these reflections in the current panorama of biochemical research aimed at the psychophysical investigation of the metabolic mind leads to gruesome corollaries, and to say the least: it is taking place in the civilized and technocratic West, already well stigmatized in 1927 by Heidegger in his "Sein und Zeit", an attempt to modify the psychic life of man starting from his eating habits: the psychopathological debacle of western man would be accelerated, in this perspective, by the processes of biochemical manipulation, thanks to alterations of the synaptic substrate which is useful for the serialization and use of consumer goods. In this sense, the consumerist man appears to be a fragile, addicted creature, victim of psychic processes and which also inevitably affect his body health (Tafari R.M., 2019). In fact, De Martino is right in supporting the paradoxical idea of a "re-barbarization" of civilian and Western progress in order to avoid its definitive sunset and to bring man back to a more natural existential dwelling, free of neuronal manipulations

and chemical-food domestications.

In fact, already with the publication of "Naturalismo e Storicismo nell'etnologia" ("Naturalism and Historicism in Ethnology"), as recalled by Professor Conte in the aforementioned study, De Martino begins to follow his leap into what Thomas Mann had called "the deep and unfathomable well of the past": if Freudian psychoanalysis digs through the patient's childhood, De Martino's ethnological and psychopathological studies attempt to break through man's dark childhood, taking the archaic as the place of myth, purity and palingenesis.

However, the perspective changes radically when Crocianism intervenes to illuminate Demartian thought in a liberal and historicist sense; denied the fascist and mystical experience of the beginning, now De Martino looks at the 1930s and 1940s as at those years when "Hitler shamanized in Europe", while he "sought asylum in the serene and severe rooms of Palazzo Filomarino to reshape the human elementary discourse, impossible elsewhere".

From Nazi-Fascist totalitarianism to the dictatorship of consumption (as Pasolini had already understood), the step was short: so, in the field of natural sciences, re-marrying the human elementary discourse would mean nothing more than re-literate the human body to the discover of its natural and physiological needs, freeing him from the artifices of big pharma and industrial macrochemistry, as well as researches by dr. Mario Fontana suggest. As for the importance of a liberation from the current state of psychophysical subjection to which our mental state is subject by means of the dictates of the commodity-shaped society, it is possible to refer to another Demartian writing: I speak of the "Il mondo magico" ("The World of Magic"), universally considered De Martino's masterpiece, which made its appearance in 1948 with the significance and value of an authentic "dive" in a privileged region of the spirit, where the symptoms of a "crisis of presence" were already evident, and where the presence it was ritually evoked, transfigured, redeemed and sometimes hideously rejected.

The metapsychic abilities and paragonomic practices of primitive men find for the Neapolitan ethnologist a legitimacy in that feeling of anguish that expresses "the will to be there as a presence in front of the risk of not being there": magic is therefore seen from the perspective of a complex set of experiences and representations, of defense systems and protective measures that express the moment of an "existential risk" giving life, in their dramatic necessity, to a historical reality that is incomprehensible and out of date for us today.

De Martino's investigative excavation in the world of human lability and psychopathological catastrophes finds a further boost in the posthumous book on "La fine del mondo", i.e. the end of the world, where, however, the connection that is established between archaic archetypes and psychopathological apocalypses does not allow to find a definitive answer to the vexata quaestio of the real origin of madness.

Madness at which the current paradigms of industrial culture seem to look with renewed metapsychological faith, seizing the authentic roots of the impulsive possibilities of the human mind (Di Trapani G., Tafari RM, 2019), and leading these risks to their unconscious realization through the programmatic and manipulative operant conditioning, which

starts precisely from our food drives: if it is true, as Feuerbach argued, that “man is what he eats”, then the coprophagic act can only reduce man to that fatal and deadly condition of in vitro product, infinitely malleable both in body and mind. It is to be hoped, ultimately, that the innovative research protocols, carried out by dr. Fontana (who already in his previous works warned against the risks posed by the so-called codex Alimentarius and the taking of misleading diets) could open up new ethical and epistemological horizons, capable of taking up the lesson of the great masters of suspicion (of which the same De Martino stands as spiritual heir) and to provide for the necessary resurrection of Homo Sapiens starting from the ashes of Homo oeconomicus.

On the other hand, the fundamental importance of the correlation between psychosomatic dynamics, primordial instincts projected to food satisfaction and sexual drive should not be overlooked. In this regard, a scientific-hermeneutic connection not yet brought to light in the psychiatric literature is the potential of some psychodynamic paradigms in deciphering not only metabolic processes, but also the enigmatic link between libidinal energy, embodiment and nutrition.

In this regard, it is worth mentioning the preponderant Freudian essay on “The Uneasiness in Civilization”, and in particular chapter 4, dedicated to the phylo- and ontogenetic shift of the libidinal economy from the olfactory to the visual area. In fact, Freud writes in a footnote: “The organic periodicity of the sexual process has been preserved, but its influence on psychic sexual arousal has rather reversed in the opposite. This change is mainly connected with the decrease in olfactory stimuli, through which the menstrual process acted on the male psyche. Their place was taken by the visual excitations which, contrary to the intermittent olfactory stimuli, could maintain a permanent effect” (Freud S., 1930). Continuing in the wake of this reflection, Freud, in the same note, fears the hypothesis of an unavoidable and stringent interrelation between sexual drives and digestive system, considered both in its retentive and excretory function: in a psychoanalytic perspective, in fact, the sexual force configures as an organic and unitary energy reserve, capable of turning into different psychic manifestations, concerning not only the strictly genital sphere. It is therefore conceivable that the civilization process, placed at the center of Freud’s attention, has gradually stimulated a similar shift of the atavistic instinct projected in search of food from a merely olfactory-gustatory satisfaction to a synesthetic hybrid, capable of involving also the visual sphere.

Freud argues, referring mainly to the bodily functions related to nutrition and evacuation, that there was a time in the phylogenetic history - easily and specularly found in the ontogenetic gait of the infant - in which even the smell of feces could act as a sexual prod in the archaic man: “The impulse to cleanse originates from the need to eliminate the excrements, which have become unwelcome to the sensory perception. We know that things are different in childhood. The excrements do not provoke any repulsion in the child, they seem to him precious parts detached from his body. Education here insists with particular energy to hasten the subsequent course of development, which must make the excrements worthless, nauseating, lousy and reprehensible. Such a reversal of values

would be almost impossible if the substances expelled from the body were not condemned for their strong smell to share the destiny that, since men got off the ground, has been reserved for olfactory stimuli” (ibid).

When in the 20s of the last century Freud wrote these pages, he could not even have imagined what exponential acceleration the path towards civilization would have undergone (or it would be appropriate to say: suffered): in the hedonistic and digitalized world of consumption, the instinctive immediacy of psychosomatically perceived libidinal channels is inhibited in the goal and projected towards market needs, often unhealthy or even pernicious.

The sensoriality linked to the olfactory prehension of a food, which in a certain psychophysical state we feel more suited to our natural satisfaction, is mutilated and direct towards digital and visual rather than olfactory consumption: it is to mention, on this regard, the interesting and research of dr. Mario Fontana, who, in his text on the pH Zone (Fontana M., 2014), warns against the risks posed by dietary and nutritional fashions à la page, which, instead of directing the body towards the foods it would really need, are likely to produce serious chemical alterations capable of engaging the vicious circle of eating disorders. The giants of the food industry and the multinationals of synthetic additives, through the injection of active ingredients of dubious workmanship, make the food more desirable, but not for this reason more nutritious, determining that chemical hunger for synthetic products in more psychologically and organically predisposed subjects, this way causing bulimia, overweight, obesity and even upsetting the delicate homeostatic and metabolic balances of the organism (Fontana M., Tafuri RM, 2020). The fordist serialized food product, masked under a seducing visual aspect capable of inducing the need, compresses the natural way to ingest food, founded primarily on the gustatory-olfactory sensoriality, thus becoming a deleterious merchandising artifact for the health of consumers.

The process, as already mentioned, follows the same katabatic path of the libidinal energetic leviathan, as elucidated by psychoanalysis: in the world of images (also made subject to consumption) the same sexuality has completely abandoned the olfactory graft and the oral gratification, denaturing itself by means of an overexposure to visual drive stimuli and social-media goals. Similarly, due to contemporary techno-civilization, the use of food has lost its natural and ecological path to nutrition, and the ingestion of nutrients has forgotten its original link to metabolic orality, distorting its natural products and altering them along the lines of direction desired by the media and the consumer goods industry. On the other hand, it is not surprising that the post-modern capitalist declared an underground war against orality as a favorite region of the psychosexual and metabolic-nutritional sphere: oral pleasure and needs maintain a structural and inseparable link with the limbic region of our nervous system, that’s to say, the synapses centre involved in the management of the most atavistic instincts, or, to borrow the Freudian paradigm, in the organization of all instances delegated to primitive drive motions: eros and thanatos lie in the dopamine secretions involving the amygdala and the hippocampus, and the psychoanalytic Es hides its intimate and organic

abode there, playing a key role in emotional reactions, smell, memory dynamics and behavioral responses. Ultimately, orality is, among all, the most resistant sensorial dimension to the domesticating maneuvers of that operant conditioning placed at the service of Big Data Analytics and to the new food manipulation proposed by e-commerce giants.

On the contrary, sight is a flexible and vulnerable sense to the media bombing, versatile for the inception of induced needs and for the deployment of psychologically destabilizing commercial protocols: it is no mystery that the whole advertising industry must necessarily use social-media, and particularly those ones intrinsically devoted to visual addiction and to visual satisfaction. The increasingly intrusive hustlers that bundle the most popular social networks generate an authentic earthquake in our sensory perception and dramatically change the psychological disposition concerning food, sex and even aggression (the main pillars of psychodynamics). In this perspective, we can again refer to the researches by dr. Fontana which, among other things, offer an interesting reading key on anorexia, bulimia and obesity and why these pathologies are so strictly and dramatically pervasive in our times, especially in the most advanced and industrialized countries. In the latter, by the way, the highest percentages of psychic disorders and nervous diseases are recorded, which seem to be far fewer in the past and almost completely absent in the third world macro areas. These are issues that we hope to explore in subsequent publications thanks to the virtuous wave generated by the fruitful intersection between independent scientific experimentation and the philosophical practice of demystification.

## Results and discussion

The analysis of the data carried out in this study was rather complex as well as emblematic in terms of results. The work of inspecting, cleaning, transforming and modelling the amount of data collected allowed to calculate a series of twenty-one multiple choice questions outlining not only a mere analysis of the data themselves, but also a confused state of mind of the analyzed sample.

The algorithm of questions submitted by questionnaire on the web platform has been structured in order to understand the level of knowledge in food sciences and the sensations perceived by individual metabolism following specific food related actions. It was also possible to capture a well-defined image of the feeling of individuals in a particular social context or in a society that dictates food styles and consumption. The questionnaire, for obvious statistical reasons, was submitted to 1000 voluntary individuals (73.2% men; 26.8% women) aged 14 to 50 in order to cross-cross data on the type of physical activity carried out with the aim of capturing the correlation between practicing sports activities and eating habits. An important factor in the preparation of the questionnaire was the order of the questions submitted, as it was not possible to change the already given answers and without the possibility of viewing the next one, in order to have a reasonable impact on the data without incurring in a possible correction by individuals. This process allowed to have coherent or contradictory answers also by means of control questions, an integral part of the study itself, in order to highlight even more, in

the subsequent statistical analysis, the authenticity of the data collected.

The data analysed show that although the adult population (19-25 and 26-35) regularly carries out physical activity, it does not have the basic dietary knowledge in the same way as the 14-18 group. In addition, of all three groups only 22% have been in a nutritionist studio in their lives (but only 9.8% of them are able to select foods for macronutrients: carbohydrates, proteins and fats), and 19.5% think they are able to manage themselves, while 14.6% want to go to a professional, but have never done so (even the group 36-50). Further interesting data confirm what was hypothesized in the pre-research phase: 59.8% of subjects frequently search documents and informations online, including also web blogs to learn information about diets and food programs to follow. In addition, 24.4% ask to the gym instructor for advice, and 26.8% ask to friends and family. Only 13.4% look for advice contacting a specialist. This justifies the inaccuracy of responses to food science and metabolism in general, although in other questions 72.2% of subjects say that advertising and networking have influenced food choices as well as the conditioning of sexual choices and tastes (22% firmly convinced, 40% assign an average value of 7 on a scale of 1 to 10). The group 14-18 responds with 79% of affirmative answers on mass homologation and conditioning of sexual desire.

The two really interesting key questions of this study are reported below:

**Have you ever experienced a particular feeling of request from your physique for a certain food during the day?**

**If you answered YES to the previous question, do you think this feeling may have a biochemical connection with the primordial instinct, so do you think it is possible that the body can send specific requests in order to ingest "ad hoc" nutrients?**

With reference to Fig.1 and Fig.2, it should therefore be noted that 70.7% of the sample says that they experience a particular feeling about the physical demand for a given type of food (remember, as mentioned above, that we are talking about a sample that has shown a lack of knowledge in food matters), and 60.9% says that this metabolic demand could be dictated by biochemical reactions related to the primordial instinct.

Ultimately, despite the absence of notions about the food culture of the sample, there is a high percentage of responses on the ideal biochemical connection between mind and body: the result of instincts not related to the educational state, but to the genetic one. Certainly, the unconventional intuition about which this study and the sample analysis is about, makes this full-bodied research a bibliographic basis that could suggest the foundation of a study about nature and birth of primordial instincts and mind - body connection. Also interesting is the not always positive aspect of big data in the homologation of the masses, as the digital population sometimes draws wrong or misleading information on scientific subjects. In spite of everything, however, the users of the network are at the same time aware of the media conditioning and willing to barter their identity for services of little individual interest, stumbling not infrequently in inaccuracies and never consolidated theories.

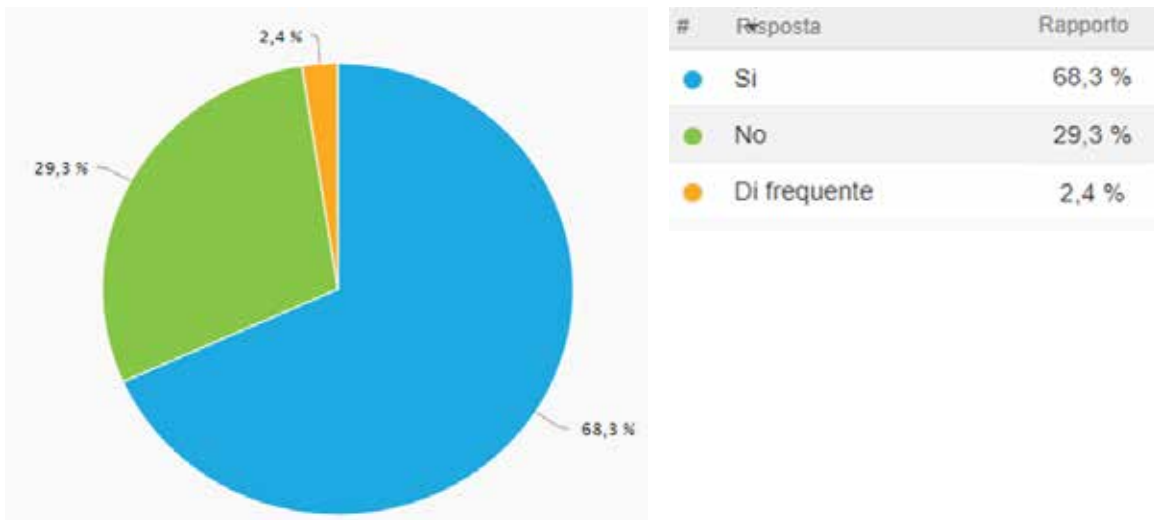


Fig. 1.

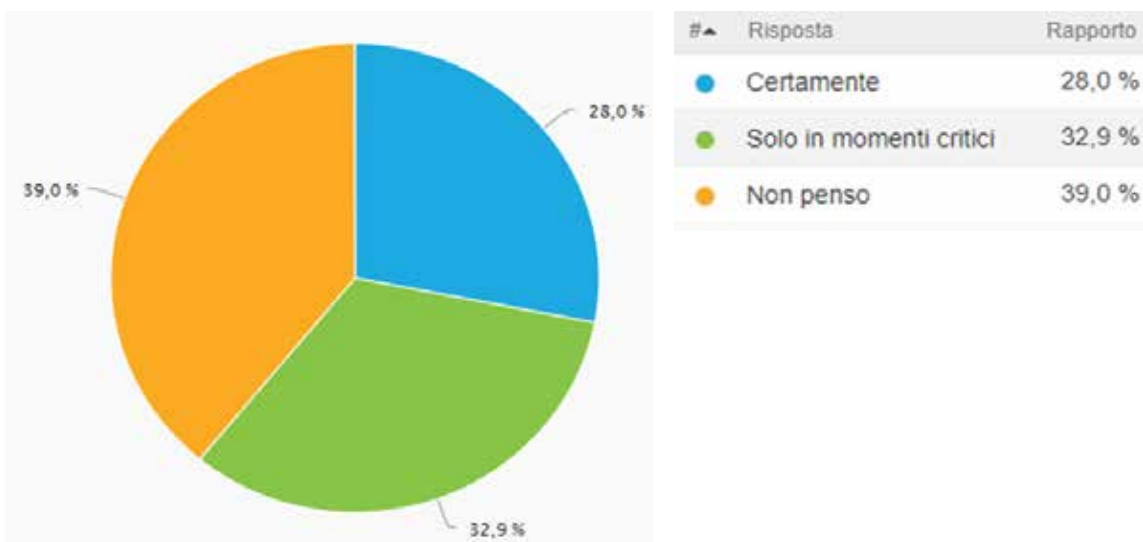


Fig. 2.

The future hope for the subscribers of this article is to be able to continue the study about metabolic mind and embodiment, therefore about the embedded cognition linked to the interconnections of the body in the scientific and nutritional medical field. In fact, in the

near future, it will be possible to analyze the deviation of the data and, therefore, of the responses given by a further comparative sample with knowledge in the nutritional field; this result could be achieved by verifying every statistical mutation.

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