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THE BASIC CONTRADICTIONS IN HUMAN
NUTRITION AND THEIR SOLUTION

One of the causes of disputes in the field of nutritional science is the contradictions between the objective existence of models of nutritional science and concepts of contemporary natural knowledge, including the need to distinguish two main (V.A. Konyshev, 1990).

1. The contradiction between the position of the synthetic theory of the existence of an organism, where each individual has individual characteristics and needs adequate nutrition to them and the recommendations of nutritional science, addressed for average people (standard or model man) or a very large numbers of human groups.

2. The contradiction between the representations of cybernetics and physiologist that it is impossible to optimize in a complex systems, to which belongs the human organism, all the functions at the same time /principle of compromise/ and the recommendations of nutritional science, in which the question of incompleteness of optimization omitted, or quite allowed to optimize all at once.

Although each individual is a complex system, but man is born with his energy characteristics and these are not correspond to the number of the world population, as now ascertain.

We know now that the human population can be divided by their energy characteristics into seven groups only α-, β- and γ-person, and their four combinations. So that it is possible to select the average people (standard or model man) or a very large numbers of human groups. It is easy now to define each individual and take from it a standard man or the model groups. This is the solution of first contradictions in human nutrition for covering their energy expenditures. By our concepts the covering of energy

expenditure depends on bodily characteristics of human but not on age, sex and working style.

Human as a complex system is not a difficulty for the science of nutrition, on the contrary it makes the situation completely easear, because all of the functions taking places in complex systems like a man simultaneously provided automatically, if we have an idea of human as a energy system, which is programmed by information. Nutrition is one of the important kinds of information if we can understand it really. According to our understanding the food production is nothing less than a processing of information, and the nutrition is the same. We want to state that we are in a few steps ahead regarding to understanding of nutrition. In the theory of medicine, there are two groups of models, in different ways reflecting the issue of prevention.

1. Proponents of the first group of models are based on the idea of common mechanisms of development of all major diseases such as obesity, atherosclerosis, diabetes, immunological disease and cancer, hypertension, and believe that in the long term may create food and diets, regimes and nutritional programs, streamlining aimed to prevent all or many diseases simultaneously, and forecast for the future promises a parallel decreasing in the frequency of all inter-related diseases.

We can notice that the above mentioned diseases are not the oxidative nature and relate to our classification of betta-categories of disease. We consider as possible to classify the diseases into groups of α- and β-disease, and diseases of energy disturbance, displacement, shift of energy and constipation. The first group or α-category of diseases includes diseases of acute oxidative and hot characters. To the second group or β-category of diseases includes chronic diseases and diseases of reduction and cold nature. Some systematic models of approach to all kinds of diseases and their diet showed in figures 1, 2 and 3.

According to our considerations is not difficult to have a body related food and nutrition, seasonal nutrition, limited nutrition, disease prevention nutrition and mental nutrition and at least the diet therapy as very new scientific knowledge based on functionalities of food.

Food and diet of the next generation which destination will have a very wide spectrum, make it possible to implement an great plan to create foods and diets, regimes and nutritional programs, streamlining aimed at preventing all or many diseases simultaneously, and a parallel decrease in the frequency of inter-related diseases not in the future but now.

2. Proponents of the second group of models in certain differences in glance agree that the reduction in the incidence of some diseases associated with an increase in the frequency of others, and the change in dietary habits will be course a redistribution of the structural frequency of the disease, so called antagonism of diseases.

According to our consideration this is not the antagonism of diseases, but antagonism of information. If we see a disease as functions of negative information, their treatment is a change of disease caused information. There are many alternative ways to change information as a treatment method including diet.

In our study had already created the preconditions for the solution of the first model. We see that the classification of diseases very in need.
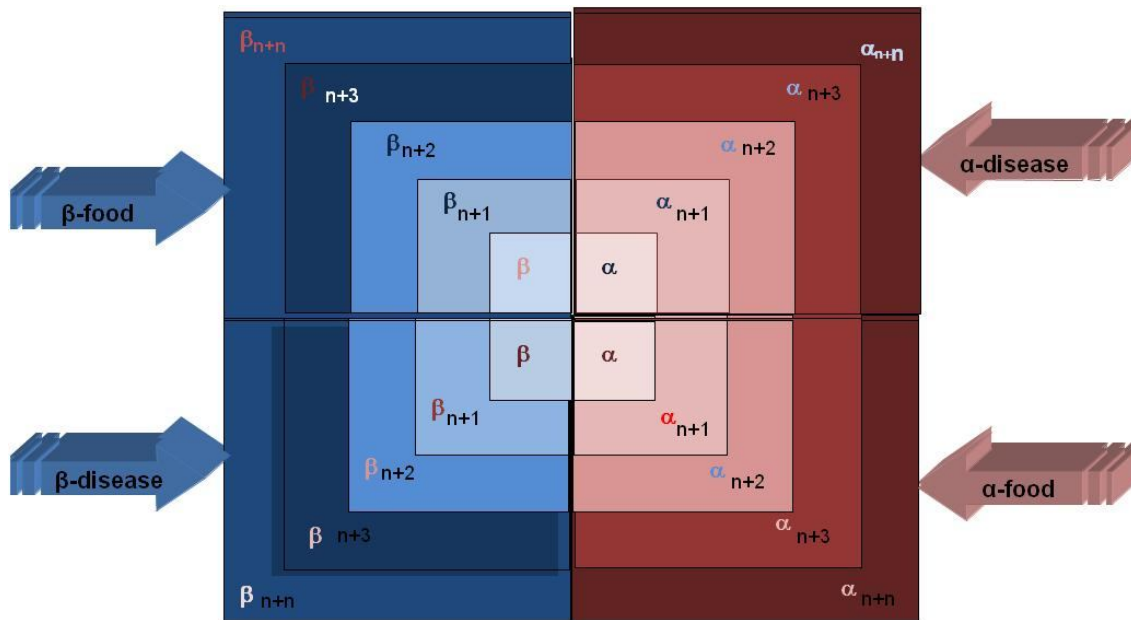

Figure 1. The diet therapy model

α-disease diet and prevention food of α-disease is β-foods, but β-disease diet and prevention food of β-disease is α-foods.
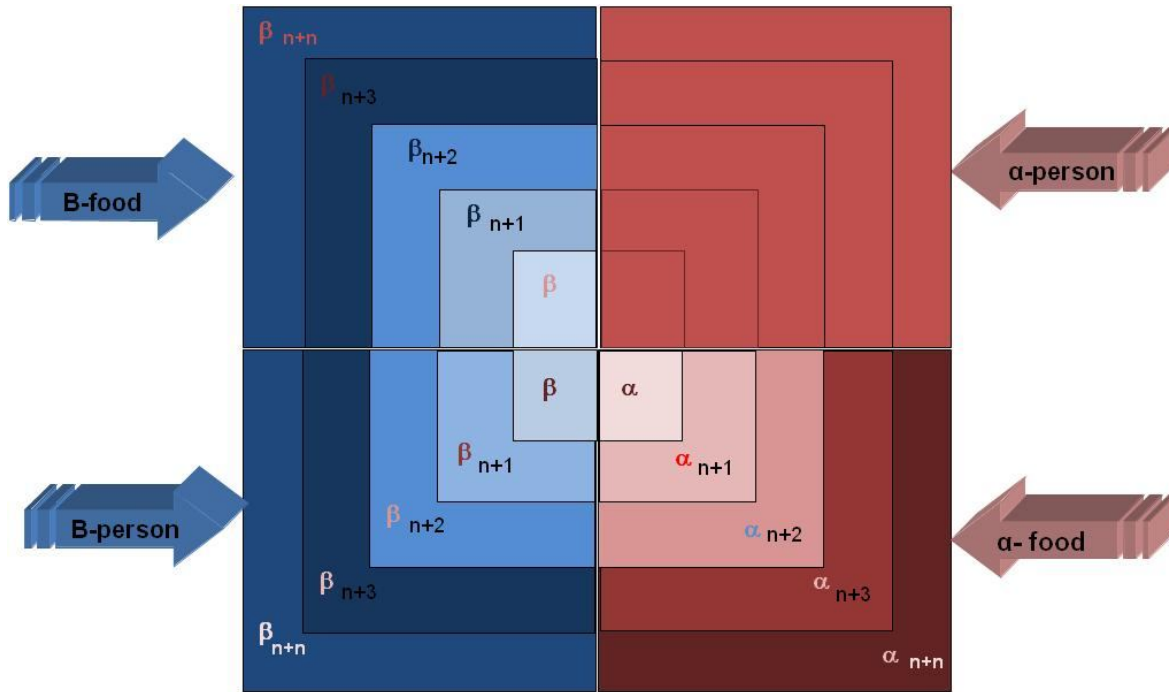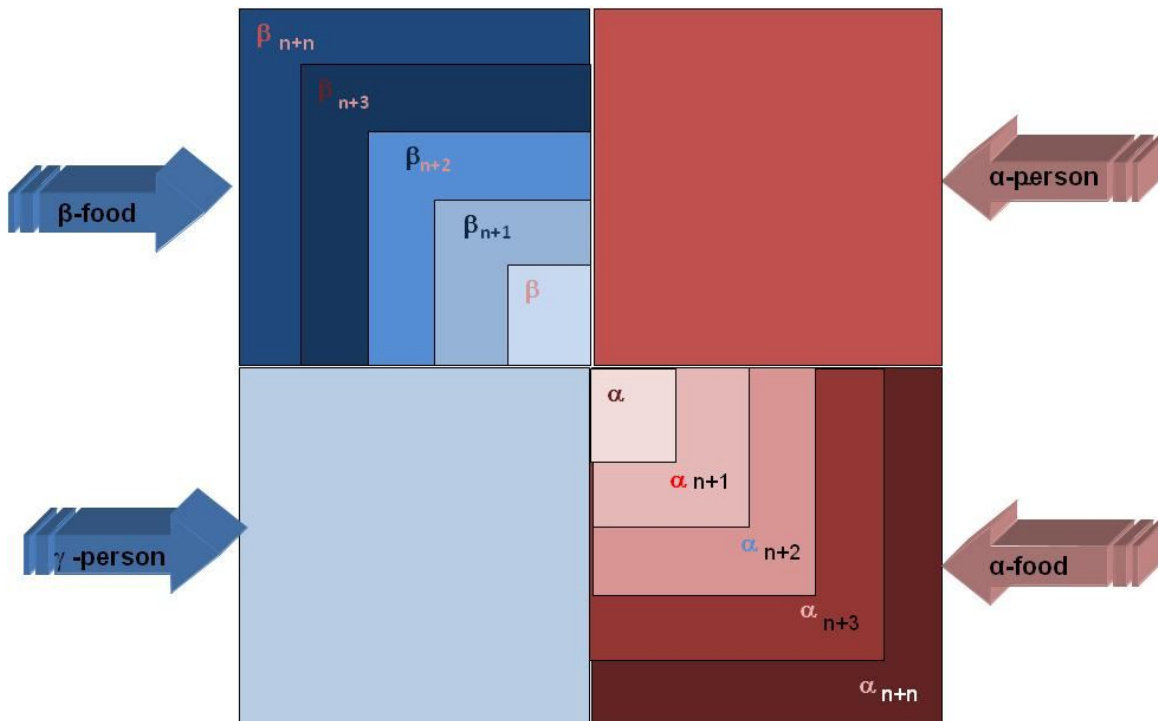
Figure 2. Dynamic model of food for β- and α-person

β-food oriented for α-person, and α-food oriented for β-person.

Figure 3. Dynamic model of food for γ- and α-person

The human classified by their energy characteristics in seven groups. α- and γ-persons have not many conditions showed in figure 3. But the β-persons have many conditions (Figure 2).

Body mass index and classification of β-persons

Table 1

Classification	Body mass index by WHO	Body mass index by this study
Normal weight	25	1β-person
Heavy weight	25-29.9	2β-person
Obesity I	30-34.9	3β-person
Obesity II	35-39.9	4β-person
Obesity III	<40	5β-person

Conclusion

1. The human population will be divided by their energy characteristics into seven groups: α-, β- and γ-person, and their four combinations. So that it is possible to select the average people (standard or model man) or a very large numbers of human groups for nutritional status.
2. It is possible to classify the diseases into groups of α- and β-disease, and diseases of energy disturbance, displacement, shift of energy and constipation. The first group or α-category of diseases includes diseases of acute oxidative and hot characters. To the second group or β-category of diseases includes chronic diseases and diseases of reduction and cold nature.
3. Food and diet of the next generation which destination will have a very wide spectrum, make it possible to implement an great plan to create foods and diets, regimes and nutritional programs, streamlining aimed at preventing all or many diseases simultaneously, and a parallel decrease in the frequency of inter-related diseases not in the future but now.
4. If we see a disease as functions of negative information, their treatment is a change of disease caused information. There are many alternative ways to change information including nutrition.

Reference

1. Konyshev V.A. The pluralism of scientific concepts and the development of nutrition, Nutrition 3,1990
2. Lkhagvaa G. The Law of Humankind, University Publishing, Ulaanbaatar, 2006
3. Oyundari N., Lkhagvaa G. New Understanding of Human and Human Development "The Intellectual Achievements of Mongolian Engineers", Ulaanbaatar, 2009
4. Serjmyadag S.,Oyundari N. New Classification of Food, Magazine Science and Technology, 03, 2009