Analyzing the Food Sciences from a Viewpoint of Food Intake, Eating Behavior and Their Relationship

Kazuko YAGURAMAKI
Otsuma Women’s University, Sanban-cho, Chiyoda-ku, Tokyo 102, Japan

1. What is Life Science?

If we provisionally define life science as “a branch of science scientifically clarifying various phenomena in life of human beings”, then the term “human beings” designates “those who live”, and it is interpreted that the place for their lives will include all those who live in the household and in society.

For 40 years domestic science in Japan is centered on clothing, eating, living, child education, and household management concerning the families, centering on home life. In the meantime, the study has been systematized as a branch of science for domestic affairs, including household operation and management, such as sewing, cooking and child rearing, which have hitherto been generally recognized as domestic affairs, with the aim for rationalization and scientificization of everyday life. It has been evolved nowadays that people in the household are regarded as social beings, and the life system in the household has become the life science correlating with social life in various respects.

It should be pointed out, however, pursuit of man’s life scientifically has also brought about a situation in which each specific field is studied too microscopically, diversifying into its own specificity. For example, “food” in the field of eating is studied as the subject of agricultural technology, sicotology and culinary science, mostly paying attention to the “objects”, and as a result many researches have accumulated as natural sciences.

However, “eating in household living” or “man’s eating life” seems to be getting away. It is important for food to be eaten by human beings tastefully and intently. Food should be eaten “deliciously”, not because of the levels indicated scientifically. It may be more important that “deliciousness” be indicated scientifically.

The same may be applied to nourishments.

The human eating culture is brought about and inherited in relation with people. Development from eating alone to eating in society does not refer only to children. It is said that the ways of eating with other people enrich one’s sociability. The study of eating should be transformed from the “objects” to “people”.

2. Study of Eating

The study of eating is divided into the experimental method on the nourishing substance level and on the in-vivo level, and the investigatory method concerning the human eating conduct. Regarding the latter method, the results of some researches on children whom the author has kept under observation are presented in the following chapters:

1) Survey of the Intake of Nutrients

The volume of food taken by people at each meal everyday well represents the state of their eating life with a numerical method of analysis whereby the “volume of food when they are swallowed” is determined. Although this method is theoretically simple, it actually requires the co-operation of the examiness, and is problematic in that accurate values are hard to obtain.

In most cases, the “24-hour reminiscence method” has been adopted, but the author uses another method with recording and interview in combination.

The findings concerning what food are eaten and
what nourishing substances are ingested are related to the growth, body, obesity and blood of the subjects, as well as to their health and diseases.

2) Eating Behavior

On the standpoint of human ecology, human eating behavior is influenced by his life environments. The state of his nourishment ingestion is associated with his ways of eating and eating environment, and his eating behavior as to when, where, with whom and with what ways did he eat are related to the contents of his meals and nourishment ingestion, which include the frequency of meals, time zone of meals, whether he ate at home or outside, the rhythm of meals whether he is used to have meals three times a day or with occasional snacks, eating forms consisting of the kind of dishes or the menu, whether he eats alone or with the family, and the consciousness and attitude of the person in charge of cooking. In most cases, the investigation on the consciousness and behavior is made with questionnaires or recordings.

3) Mutual Relations between Food and People

Children are said to grow up under environments. Since, their eating preference or eating habits are cultivated in their daily eating life, the influence of their mothers and other family members is great. In cases of children who are too small to select their own food, the attitude or consciousness of their parents toward eating is directly reflected in their eating behavior.

The result of our experiment on how the attitude of the mother towards child rearing will give influence to the eating habits of children showed that mothers whose rearing attitude was incomplete, many troubles with children were developed during meal time of children.

The author further desires, while tracing the relation-ship between mother and child, that the eating behavior of children is associated with the changes in the mother's consciousness, finding the core of psychology of eating.

(Received October 9, 1987)