# SOME PSYCHOLOGICAL ASPECTS OF SYNTHETIC FOODS

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Discusses problems involved in the introduction of synthetic foods into the American diet. Outlines an approach to utilization of synthetic foods in the future feeding of the country and world.

As consideration is given to the next thirty to fifty years in the food industry, the issue of synthetic foods is one that looms ever-larger on the scene. The purpose of this paper is to take a look at some of the major aspects involved in the future development of these items. The discussion will not be technological, physiological, economic, or systemic, although psychological aspects have their influence upon all these areas and more. What the author proposes to do is to look, as best he can, into the minds of consumers and of people in the food industry today and to isolate both positive and negative psychological aspects to the development and use of synthetic foods in the future.

At this point it is necessary to state that the views which follow are necessarily biased for they come from a future oriented, food distribution economist and not from a psychologist. The author trusts that both the members of the food industry and the psychologists will be patient so that these fundamental issues can be explored and hopefully dealt with in the near future.

## The Nature of Synthetic Foods

In attempting to provide a meaningful definition for "synthetic foods", we actually come across one of the major psychological aspects which are the subject of this paper. The dictionary[1] provides us with the following:

Synthesis —
1) composition or combination of parts or elements so as to form a whole.
2) the combining of often varied and diverse ideas, forces or factors into one coherent or consistent complex.

Essentially these definitions say that to synthesize we must take parts and build them into some sort of a whole. Therein lies the first of the psychological aspects for discussion. "What parts are we combining into what wholes for what purpose?" To this date there has been no common understanding among either consumers or people in the food industry as to exactly what are synthetic foods. Those foods or supplements to foods already introduced have been quite diverse and much more importantly have been cloaked with an aura of mystery. The highly technological nature of the items has made them somewhat less than comprehensible to the common man, in fact to anyone who does not have intimate knowledge of food technology.

If we do not understand what something is, then there is always the natural tendency for us to fear and mistrust it. The vast majority of consumers and food industry people do not understand all the technology involved in the nutritional make-up of the "natural foods" that we have eaten for many years. However, we have seen them before; we know where they came from; we have eaten them before with no ill effects; and since they come from nature they just simply have to be good. It's as if there were some "natural law" that covers this situation.

Another aspect of the problem lies in the fact that man has historically sought to draw out the "good-bad" dicotomy in the items which he deals with during his life.

Hence, if natural foods are "good" then surely anything that is "not natural" (synthetic) must indeed be bad. Man in his desire to catalogue everything has fallen into this perplexing logical trap. Thus, we are experiencing the age old condition that has plagued mankind and has tended to slow his rate of inquiry — "fear of the unknown".

Back to the definitional problem for a minute. If we say that natural foods are those in a given state found in nature, then we must say that logically synthetic foods are those that are not found in such a given state in nature. This definition is not correct because there are many food items (such as from the sea) that man has not yet tried to eat from their "natural state". Also, we might take two or more "natural food" items and combine all or parts of them into some sort of "synthetic food" products. This is only part of the definitional problem. We may synthesize "foods" from nutritional elements found anywhere in nature or extracted from other sources found anywhere in nature.

So, what exactly is a "synthetic food"? The author will be the first to confess his inability to arrive at a satisfactory general definition. However, this condition serves to point up one of the major challenges in this area. How is it possible to present a positive image of an item or series of items to the public or to an industry if there is not common understanding of the nature of the items being presented? Now that we have confessed to ignorance of the basic area being discussed, we will compound the problem by discussing this "thing we haven't clearly defined yet" in terms of consumer and food industry aspects.

Consumers Look at Synthetic Foods

Consumers view this phenomenon of synthetic foods from several separate and related points of view. First consumers react as individuals and we shall consider some of the major psychological aspects of individual behavior. Second, they react in terms of groups and institutions to which they belong or must deal with. We shall also discuss some of these relationships. In addition, there is not only the conflict within the individual and within the group to be considered, but also one must think in terms of the individual versus group reactions.

As an individual, each consumer is made up of a sum total of his or her collective experience and training which is influenced by such things as habit, taste, preferences, religion, ethnic and geographic influences. No attempt will be made here to deal with all of this morass of conditions, traits and reactions. The point to be made in this particular portion of the discussion is that regardless of which factors one attempts to analyze, the experience almost all consumers have had is in terms of "natural foods". Moreover, the limited experience that consumers may have had with synthetic foods has been in sort of a semi-disguised form. Possibly natural foods were supplemented with certain synthetic nutritional elements. Or more likely, the synthetic product was disguised as a natural product such as soybean hamburger or "synthetic bacon". A third case might have been such items as breakfast cereals, snack foods, desserts, oleomargarine or filled milk. In these cases, the consumer was not sure what he or she was eating, it was not "natural food", but after some considerable resistence, these products have been accepted.

Two points are pertinent from this discussion. First, most of individual consumers experience has been with "natural foods". Enter the "good-bad" problem again. Second, the average consumer may in reality be eating many synthetic foods or synthetically supplemented foods and not really be aware of this fact. Hence, there could be an internal conflict for the individual - natural "bad" reaction to synthetic foods, yet still he is consuming an ever larger proportion of his diet in these items.

In terms of groups of consumers, all the psychological aspects which pertain to individuals also pertain to groups. There is, as well, a further dimension which proceeds to add its complication to the picture. One must consider all the various groups that consumers belong to: civic, social, religious, ethnic, fraternal, etc. Not only must thought be given to the psychology of each individual group, but also there is the

additional aspect of group interaction within a certain segment of the society.

While one individual may be willing to accept synthetic foods as an individual, he or she may not because of feared reprisal from the group. Similarly, an individual group may not object to synthetic foods, but will not be willing to incur the disfavor of other groups — either individually or collectively. Thus, one must consider an entirely new, immensely complex group of interrelationships, which may adversely effect attitudes toward synthetic foods.

Additionally, groups are traditionally much more reluctant to change and also slower to change than individuals. This condition tends to extend the time frame which must be used in planning nutrient delivery system changes.

The foregoing discussion considers the consumer individually and collectively, in a static sense. For planning purposes the element of change at both levels must be introduced to further complicate an issue that is already complex enough. One must consider how all the relationships and interrelationships will develop as of some date in the future; as well as the various stages each will go through to get from the present to some future date.

Just to put the "frosting on the cake" we must remind ourselves that we are not really sure what these "synthetic foods" are that are being introduced into this seemingly endless morass of relationships.

## The Food Industry Looks At Synthetic Foods

When consideration is given to the food industry, we must look at the individual, the firms and the institutions involved in the production, processing and distribution of food products. Of course, we cannot forget the industries that supply the food industry with a wide variety of inputs and those industries that serve the food industry such as transportation and packaging. Without repeating the previous discussion, each individual must be considered, then each firm, and each institution as well as all the intra and inter actions that exist. Further, all the individuals and both consumers and professionals, and many times the positions of the two view points are opposing. To summarize the situation, it is considerably more complex than the consumer side because of the many institutional levels and service industries. Yet it may be simpler from the point of view of having fewer total individuals to deal with, even though each individual is both a consumer and a professional.

The food industry has another characteristic similar to consumers - most of its experience has been with natural foods. Although some firms have been working in synthetics for some years, all the production and production related people in the food industry, most of the processing and distributing people as well as firms and institutions have their experience with natural foods. This is true both from the point of view of consumption and profession.

Let us consider, for a moment, this finely structured food industry with its multi-layered system for production, processing and distribution of food products, together with supporting and input industries and the vast governmental and educational system designed to regulate and support its activity. Such an industry has been operating until relatively recently almost exclusively with natural foods. Then synthetic foods raise their threatening, collective, ill-defined heads and what happens? This industry is threatened with competition for the first time. To get to the meat of the issue, jobs and other vested interests are threatened and people are understandably quite concerned. The first reaction is negative. Strike down the intruder, lest he "rock the boat"!! Oleomargarine and filled milk are two classic examples.

A little historical sketch might be pertinent at this point. The basic structure of the present day food industry, as well as the supporting and input industries, governmental and educational institutions, was developed during a period in time when a vast majority of our people were engaged in the production of food. To make the history lesson short and to the point, times have changed and only a small portion (less than 5%) of our people are involved in the production of our food. Yet the basic structure has

not changed. Of course, there have been changes. Distribution and transportation have seen the greatest number. Processing has had its share and production has changed - largely in terms of scale, however. Nevertheless, the basic posture has not changed. This is especially true in the governmental and educational institutions involved with the food industry.

Back to the synthetic foods question. How does this abbreviated piece of history pertain to the issue at hand? The issue is just this. If it is possible to more efficiently and effectively feed our people and maybe most of the world's people by some "synthetic" means, then those in the existing industries, governmental and educational institutions who served or supposedly served these industries could have their jobs threatened...or even eliminated. This could very well happen, in fact, to the author.

From the point of view of psychological aspects, we are dealing with fear of change, rejection, institutional inertia, inability to adjust to changing situations, frustration of inadequacy, the crushing defeat of seeing our own "brain child" destroyed or worse, "put out to pasture". These psychological aspects are important in industries, but the author would like to think the profit motive has a way of fairly rapidly weeding out the unproductive and incompetent (government intervention and unions aside). When we move to the governmental and educational institutions, the civil service system and the tenure system, plus the fact that man has been very hesitant to develop meaningful, useable evaluation tools for these institutions, has made rapid change impossible and even slow change a painful and unsure process.

Thus, we find parts of industries, governmental and educational institutions, designed for one purpose, but struggling mostly unwillingly and superficially to adjust to catch up to the present day which requires an entirely different purpose of them. Of course, with all the struggling to become relevant to today there is precious little, if any, time left to consider such issues of tomorrow as: synthetic foods. And, after all, tomorrow is for the next generation, isn't it?? Or is it??

## The Challenge

As the situation has been presented, one would easily consider the mass of psychological problems from either the consumption side or the food industry point of view, let alone both, to be completely overwhelming. The challenge is to face and conquer these problems along with the technological, physiological, economic, systemic and other problems as well. To those who accept the challenge, more power to you. To those who ignore it, "pax vobiscum".

## A Response to the Challenge

In order to end this paper on a positive note, the author will briefly outline a suggested procedure for dealing with the synthetic foods problem. Such steps would be as follows:

1. Analyze the problem of feeding future generations from the point of view of providing adequate nutrients for life support and growth. The vehicle to transfer the nutrients should be unimportant at first. Look at the problem from a world-wide point of view. The future will have little time for state or nationalistic differences. Most importantly view the problem from the point of view of the future and <u>not</u> from the past or present. Facilities, institutions, and procedures designed to solve past or present problems will not begin to solve those of the future. Man's tendency to tackle tomorrow's problem with yesterday's tools is the greatest stumbling block to effective solution of our pressing food problems.

2. Effective national and/or supernational leadership must be found or developed who will possess the point of view described above and who will possess the imagination, foresight, and intestinal fortitude to plan adequately and lead a "foot dragging" institutional framework into the future.

3. New organizations, institutions and procedures must be developed to handle the problems of the future. The most important characteristic of these groupings of people, facilities and technology, and capital must be lack of rigidity. Factors of production must be brought together to

solve a particular problem and then move on to solve another problem. Man's desire for "permanent empires" is the major deterent to swift progress in institutional adaptation to meet rapidly changing needs.

4. One of the reasons for this slowness of institutions to adapt to change in the past has been the almost complete lack of meaningful, quantifiable, useable criteria for evaluation. In addition to the scarcity of criteria, those few that were in use were not themselves evaluated often enough to see if the criteria were "relevant". So the proposal is for better criteria that are consciously kept up to date.

5. In order to provide a relatively smooth transition from today to tomorrow, a coordinating group must be developed to assist making new use of those parts of the industry for which there is no more need, and to bring in those parts that do not presently exist. Retraining, early retirement and other adaptive measures must be employed to ease the pain of transition and keep progress toward the goals orderly. Lack of alternatives and man's instinct for survival make change untenable for some. Removal of, or easing the transition over these barriers will aid in effective change management.

6. What is probably implicit in all these suggestions in that the industry must develop a "future attitude". One must condition himself to look toward the future with confidence to meet the ever widening and deepening stream of change which will move at an even faster rate with a positive stance. The "ostrich approach" of clinging desperately to the past and only being dragged "kicking and screaming" into the present, let alone the future, simply cannot be tolerated. The speed of especially technological and hopefully social change to keep pace in the future will be "mind boggling" to those with the proper attitude. Unfortunately, those without it will most probably "blow their minds".

The approach suggested above is only stated in the broadest of terms. What is needed now is an immense amount of effort to flesh out the skeletons and get on with the job. Truly a challenge within a challenge.

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[1] Webster's Third New International Dictionary, (unabridged). G & C Merriam Company, 1965.

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