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# ORGANOLEPSIS: A TOOL FOR THE MANAGEMENT OF MORE COMPLETE EATING PLEASURE

by

Edward Brodsky-Porges

Seattle Center for Hotel and Restaurant Administration

Washington State University

Seattle, Washington

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Emphasizes the need to teach organoleptic perception to students, workers and management of food service establishments in order to insure higher levels of customer perceived satisfaction.

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The food service industry has largely ignored the idea of exercising greater control over certain factors contributing to an eater's level of satisfaction. Frozen food manufacturers, large institutions, intimate restaurants, and the familiar hot dog vendor can control those factors which determine how a patron perceives the quality of the food that he has ordered.

A person judges his eating-out experience, favorable or otherwise, by the ambiance of his surroundings, the level of service, and the perceived quality of food served. Most food service operators appreciate ambiance, i.e., cleanliness, decor, soft music, etc., as having the potential of making a major impact upon the guest. Operators are also aware of human elements in terms of friendly, prompt service. However, the least recognized, yet as equally important an area in food service, is knowing how and what combination of foods to serve, and how to serve them.

A cafeteria manager may well have efficient and trained personnel serving customers who dine in comfortable surroundings. The food may be nourishing,

inexpensive, sufficient in quantity and tasty. Despite what appears to be completely acceptable, one thing may stand out to customers and management alike--dull, routine, "blah" meals. The eater, whether patient, student, worker, or customer, may honestly rate the fare as merely OK, definitely not great. Moreover, these perceptions are usually well justified. Management can, however, modify these customer perceptions by understanding organoleptics which may, therefore, eliminate "blahs."

## Organoleptic Perception

People become organoleptically involved with their food. That is, people are influenced by the selection and combination of foods in terms of texture, temperature, shape, feel, flavor, smell, and sound. Should merely one of these factors be inappropriate, the whole dining experience may be perceived or believed less than adequate. Should these organoleptic influences harmonize, the dining experience is more likely judged favorably.

Organolepsis is then the sensual relationship of an eater to his food, whether a single item or multiple foods combined into a full meal. Management who understands and properly utilizes the principles of organoleptic perception, indeed possesses a very dynamic tool, and being cognizant of these organoleptic

factors can serve well to enhance the dining experience. Many operators believe garnishing with parsley, lemon wedge and paprika is a step in the right direction. It is; but it is not nearly enough. These operators must shift gears and think: sound garnish and tactile garnish in addition to visual garnish. They must think of food characteristics and combinations which influence the eater's primary senses of touch, taste, smell, sight, and hearing.

### TOUCH

This primary sense enables us to distinguish various textures, temperatures, and tactile sensations, each of which influences perception.

#### Texture

Crunch, chewy, effervescent and mushy are textures. In many cases, texture has little effect on taste. However, should the texture be "wrong," that food or beverage may be perceived as unacceptable. For example, flat beer or champagne tastes the same as its fully charged counterpart; one is acceptable, the other is not. Watermelon juice and whole watermelon are largely indistinguishable taste-wise, but the juice will most often be rejected. In each case, texture is the decisive factor. Orange juice with pulp is more interesting, as is a banana-split topped with chopped walnuts. Utilizing this concept, it is therefore, important to combine foods with contrasting textures, so long as the food itself is of its accepted texture.

#### Temperature

Another critical perception factor is temperature. People can best taste food at body temperature. The same food served above or below body temperature appears to have varying flavor intensity. A simple experiment easily demonstrates.

Wine, at 32°F cannot be tasted; taste buds are inoperative at that temperature. Increasing the temperatures of the wine increases perceived flavor; at higher temperatures the wine may be "too strong." Food temperatures approaching 140°F again, temporarily render tastebuds useless. This may explain why smoked fish is preferred chilled, while heated smoked fish is too "fishy" for most people. Therefore, cooks should season foods at serving temperatures rather than when it is removed from the walk-in or oven. Additionally, there is a fatigue factor which varies inversely with temperature. A person can drink more iced tea for a longer period of time than its heated counterpart. Generally, patrons most enjoy food when its temperatures are appropriate, not extreme. Interestingly, temperature contrasts create a desirable response. Consider then, cool whipped cream floating in a cup of hot chocolate, or the hot fudge ice cream sundae. Eaters have more favorable opinions of food that is moderate in temperature or of contrasting temperature ranges.

#### Tactile Sensation

Finger foods have become associated with "fun foods." Until recently, touching of food had been unacceptable in polite company. Largely due to advertising, finger food such as hot dogs, fried chicken, corn-on-the-cob, french fries, and watermelon has joined the elite inner-circles long reigned over by the canape and hors d'oeuvres. Social eating behavior trends may well indicate the extent to which society will indulge in the tactile pleasures of eating. Many of us have pleasantly experienced the tearing off a piece of crusty bread. Touching may indeed add to an eater's organoleptic perception of increased pleasure. This increasing social acceptance can be capitalized upon by including foods in a meal that are handled similar perhaps to the antipasto of celery, olives, and so on.

Children obviously delight in eating with their fingers. Adults, too, can capture some of that pleasure.

### Taste

Certain sections of the tongue are attuned to each of the four cardinal taste sensations--sweet, sour, saline (salty) and bitter. Olfactory receptors within the nose are sensitive only to volatilized particulates or gasses. Yet, we are unable to perceive or taste flavors without the senses of taste and smell working in unison. Holding your nose shut or suffering from a stuffy nose will effectively render useless any taste that may have registered on the tongue. Flavor is perceived when both taste and olfactory receptors are stimulated. As previously stated, higher food temperatures intensify flavor. Conversely, lower moisture content also seems to concentrate flavors: raisins are sweeter (and less juicy) than grapes; jerky is meatier than beef. One may conclude therefore, that we would generally prefer dehydrated to fresh, moist foods. This is clearly not the case. Organoleptically, dried fish and fresh fish have distinct flavor characteristics, each to some extent, desirable. From the standpoint of flavor management, combining primary taste sensations (sour, saline, bitter, and sweet) tends to add a new dimension to experiencing flavors. Certain combinations are particularly relished such as sweet cream over tart strawberries. Other flavor contrasts are traditional, i.e., mint jelly with lamb, cranberry sauce with turkey, and duck à la orange. Organolepsis may explain why some people prefer lightly salted fresh fruit such as watermelon. Aware managers then should carefully select contrasting and multiple flavors as an additional means to meal enhancement.

### Sound

Another mechanical registration upon the body is sound. Not only do we hear sound as transmitted through the air waves, we also "hear" sound transmitted through our skeletal structure. The highly prized crunch of corn chip is generated in the mouth and amplified by the bones within the head. That crunch is "heard" quite differently, despite the popular television ad. Although the flavor is nearly identical, "snap, crackle, and pop" is preferred over the slosh of milk-soddened, flaked cereal. Another organoleptic preference may have been experienced in the nearly indistinguishable flavor between fresh and limp celery. The lack of "sound" in the latter may, in fact, produce a negative response. Sound, indeed, is an important component to eating pleasure. Undoubtedly, including sound producing foods will also contribute to an eater's pleasure perception.

### SIGHT

Two variables, color and shape, create visual impact. Both visual inputs are the most readily recognized by food preparers and eaters alike. People in food service generally refer to visual organolepsis as garnishing, without recognizing that color and shape are distinctly unique.

### Color

A monochromatic meal can negate the positive results of variations in flavor, temperature, texture and so on; just one color, in terms of food, is indeed very dull. An extreme, but not unheard of, spring-time meal may be served on a table with yellow linen and china and a fresh bouquet of yellow daisies, to complement a menu of:

Hot corn bread, butter pats  
Golden fried chicken  
Corn niblets  
Pineapple ring garnish  
Lemon Sherbert

The above food combination has positive organoleptic variations, excepting color. The lack of color variation subtly lowers an eater's perceived level of satisfaction. A lesser extreme, but more often encountered, is the white gravy served over mashed potatoes. Merely introducing contrasting colors may immensely perk-up your patron's interest.

### Shape

Shape (or form) also affects one's perception. Variations in form are well known: diced, sliced, rings, sticks, whole, and so on. An entree completely ignoring shape consideration may consist of:

Baby Harvard Beets, whole  
Boiled Irish Potato, whole  
Deep Fried Fish Croquets

Merely changing the shape of one item would elevate the level of acceptability. Shape and color of food combinations is a factor to which more attention must be paid.

### SUMMATION

Food service managers, preparers, and servers can easily contribute more to a patron's feeling of meal satisfaction by applying the concepts of organoleptic perception. This concept suggests that all the primary senses of touch, taste, smell, hearing, and sight, are actively involved when a person consciously or unconsciously judges the quality of the meal. Each of these variables must contrast to produce an interesting and pleasurable meal.

The baked potato topped with cool sour cream, bacon bits, and chives seems to employ all the five senses; with this one item we see contrasts in temperature, texture, taste, sound, and color, perhaps explaining its popularity.

Managing these variables may be among the least difficult of processes confronting today's food service industry from the food processor to the eating establishment. One control technique could be a menu analysis, and visual inspection of the salad bar and garnishes. To insure higher levels of customer perceived satisfaction, the concept of organoleptic perception should be taught to students, workers and management of food services.

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Carl Reitz, upon graduation as a mechanical engineer, was advised by a professor to begin his career first by taking a different job in a different field for ten consecutive years. Following this advice, Reitz eventually found himself selling pumps to food processors in the tomato growing valleys of California. These early experiences cultivated a life-long interest in food, which led to his teaching a popular course at Mills College, Food, Fire and Folklore. He began writing a book about foods in 1945 which eventually was published in 1961. Reitz developed numerous food concepts; organolepsis is one of them which, I suspect, will be universally pursued in the near future. This and other fascinating food concepts are found in his book entitled, A Guide to the Selection, Combination and Cooking of Foods: Volume I: AVI Publishing Company, Inc., Westport, CT: 1961. Carl Reitz died in 1965, well into his 70's. I am indebted to his foresight and interest in foods and hope that others will carry on his work.