Evolution of the Sensory Science Discipline: Redux



Howard G. Schutz University of California Davis

• 10 years ago wrote an article for Food Technology

• This presentation will cover the main points of the article and update the information where appropriate.

What is a profession?

- a. engaged in one of the learned professions
- b. characterized by or conforming to the technical or ethical standards of a profession
- c. Participating for gain or livelihood in an activity or field of endeavor often engaged in by amateurs
- It should have these components
 - 1. A common set of educational components
 - 2. An agreed upon set of methods
 - 3. A method of communication among members of profession
 - 4. Appropriate ethical standards
- Will present information with these criteria in mind

Early Research Activity

- Early sensory activity primarily the work of psychologists and physiologists aimed at the basic understanding of the senses.
- Statisticians contributed methods of design and analyses.
- This work took place primarily within research laboratories and published in appropriate discipline journals.

Practical Application

- First practical application what was originally called organoleptic research took place in commodity groups such as dairy and meat. Methods were developed independently.
- These were usually to measure simple preference for agricultural products and in some instances thresholds.

- Another interdisciplinary area which made early contributions was Home Economics
- USDA regional laboratories conducted research primarily in the area of quality control
- Food industry used expert panels for tea, coffee and alcoholic beverages

- Early acceptance type testing was conducted in industry within market research using simple methods of evaluation, both lab and in house.
- First organized descriptive method developed by Arthur D. Little called Flavor Profile
- Difference tests for quality control used in alcohol beverage industry.

Role of Quartermaster Food and Container Institute

- Late 40's early 50's assembled psychologists and food technologists in Acceptance Branch
- Studied basic taste, odor, appetite and hunger and developed the 9 point hedonic scale
- Contribution of contract research program
- Transfer to Natick Lab of acceptance activities

Was sensory evaluation a profession at the time?

- No!
- No journals dedicated to area
- No professional organizations
- Little in university education
- No books
- Much of the training in area was through apprenticeship
- What existed was in commodity departments and Home Economics

- Early courses in sensory taught at Kansas State and University of Illinois
- Mid 6o's program at UC Davis developed a more comprehensive non-commodity program at both undergraduate and graduate level
- Since then, Oregon State, University of Minnesota, Kansas State, University of Missouri and Cornell have programs
- UC Davis Extension Certificate program

Organizations

- IFT Sensory Evaluation Division formed in 6o's as well as ASTM E-8 Sensory Evaluation of Products and Material
- IFT first had just sessions dedicated to area then symposia as well as posters
- ASTM developed first manuals of procedures.
- Monell Chemical Senses Center
- Others more specialized groups formed: chemical senses, food choice associates, Sensometrics

Communication

- Books: Principles by Pangborn, Amerine & Roessler
- Sensory Evaluation applied texts:
 - Stone and Sidel
 - Meilgand, Civille, and Carr
 - Lawless and Heymann
 - Moskowitz
 - Resurreccion
 - Sensory newsletter from IFT division
 - Sensory E letter

Journals and Conferences

- Journal of Food Science
- Food Technology
- Journal of Sensory Studies
- Appetite
- Journal of Food Quality and Acceptance
- Pangborn Conference
- Sensometrics

Sensory Outside the U.S.

- Work primarily in academic institutions
- Tilgner in Poland
- Roland Harper in U.K.
- Sik in Sweden
- Matforsk in Norway
- Koster in Netherlands
- Booth in U.K.
- University of Copenhagen
- Institute of Food Research, U.K.
- European Sensory Network

Role of Vendors

- Developed methods in areas of descriptive, discriminative and affect.
- Contributed to the area of relating product attributes to liking
- Conducted workshops which were and still are to a lesser degree basic education for industry

Main Themes at Present

- Non-Food-exp. personal case, autos, cleaning products
- Food Service
- Role of context in evaluation
- New scaling procedures and affect
- Multivariate analyses which relate attributes to liking.
- Role of emotion in product evaluation
- Growth of qualitative methods such as focus groups
- Involvement in market research type activity
- Front end research Insight
- Iron Mongery

Are We A Profession Yet?

- Common educational component
- Agreed upon methods
- Method of communicating among members
- Appropriate ethical standards

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