

**WHEN**  
NOVEMBER 5 - 9, 2012

**WHERE**  
THE GREENBRIER IN  
WHITE SULPHUR SPRINGS, WV

**NOVEMBER 5 - 6, 2012**

## Combinatorial Tools for Product and Brand Optimization

**AND**

**NOVEMBER 7 - 9, 2012**

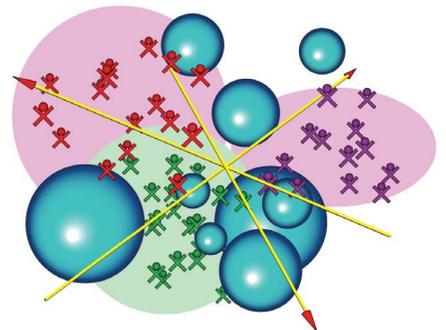
## Drivers of Liking<sup>®</sup> and Emotion Mapping

### *Who Should Attend*

*This course has been developed for technical and supervisory personnel in sensory evaluation, market research, product development, quality assurance, and general management within consumer product companies.*

### *Why Attend?*

- Taught by respected leaders in product and concept testing, these courses will help you make more efficient, informed and profitable decisions.
- These courses have evolved continually over the past two decades and present the most recent advances in testing methods and models.
- By attending these courses, you will learn novel approaches to product and market research that you can easily apply to your own professional challenges.



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**WHO SHOULD ATTEND**

*These courses have been developed for technical and supervisory personnel in sensory evaluation, market research, product development, process development, quality assurance, marketing, legal, and general management currently working in consumer product companies.*

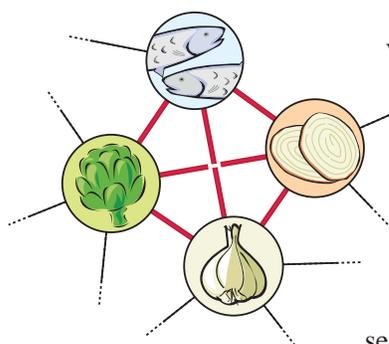
*As a result of new research, our courses continually evolve to include new material, so previous attendees will also benefit from participation.*

## *How the Courses are Taught*

During two decades of teaching short courses in Sensory and Consumer Science we have gained an appreciation for engaging our audiences so that technical material can be absorbed easily for effective future use. Rather than relying on the standard but often ineffective theory-application approach, we instead interweave an unfolding story with the theoretical and applied material to provide our participants with a sense of discovery and relevance regarding the various tools they encounter. This dual teaching approach has shown itself to be extremely effective at providing participants with a thorough and long-lasting understanding of the course material.

# Combinatorial Tools for Product and Brand Optimization

**COURSE 1: NOVEMBER 5 - 6, 2012**



What is the best combination of toppings for a frozen pizza? What is the best combination of energy bars to include in a variety pack for bulk sale? What is the best combination of salty snacks to select for a category appraisal? The search for optimal combinations

appears throughout market research and the extensive use of powerful tools such as adaptive conjoint analysis has demonstrated a widespread interest in these problems. Even so, there exists an entire category of unsolved problems that are not easily accessed with the tools in common use and require the innovative application of advancements in discrete mathematics. To build successful large combinations out of successful smaller

combinations, one can now combine efficient algorithms from the field of graph theory with the speed advantages offered by modern computers to solve problems that were previously unapproachable. These new techniques make it possible to find optimal combinations from a potentially astronomical number of possibilities; in some examples the number of combinations can exceed the number of grains of sand on all the beaches of the world but one nonetheless discovers an optimal solution. Two examples of appropriate applications for these tools are in the design of cases of high quality meal rations for the American Armed Forces and in the design of a successful pizza franchising menu beginning from a large number of possible topping choices. In this course, we identify problems not easily solved using present techniques, briefly introduce the relevant mathematical tools and illustrate through several well-motivated examples the value of these tools.

## **MONDAY (NOV. 5, 8am - 4pm)**

### **Topics**

- ◆ Problems in sensory and consumer science requiring computationally intensive tools
- ◆ Beginning graph theory, cliques and backtracking
- ◆ Identifying maximally compatible combinations of features, flavors or ingredients
- ◆ Selecting maximally distinct combinations of products for testing or factories for monitoring

### **Cases**

- ◆ *Selection of optimal collection of food products for a category appraisal*
- ◆ *Discovering optimal meal rations for the American Armed Forces*
- ◆ *Screening for best combinations of salad toppings*
- ◆ *Determining a short list of boxed meals from a large number of possibilities*

## **TUESDAY (NOV. 6, 8am - 4pm)**

### **Topics**

- ◆ eTURF: Creating a more efficient Total Unduplicated Reach and Frequency analysis
- ◆ Finding optimal portfolios of features, flavors or ingredient combinations
- ◆ The relationship between Graph Theoretic Analysis (GTA), TURF, and Landscape Segmentation Analysis® (LSA)
- ◆ Selecting the best combinatorial tool

### **Cases**

- ◆ *Selecting an assortment of boxed meals for multi-pack packaging*
- ◆ *Development of an optimal menu of pizzas for a large scale pizza franchising company*
- ◆ *Finding an optimal portfolio of sparkling fruit juice beverage product-bundles*
- ◆ *Determining best combinations of concepts for marketing a children's juice box drink*

# Drivers of Liking® and Emotion Mapping

COURSE 2: NOVEMBER 7 - 9, 2012

Learn to “see” the market from your consumers’ perspective as you develop an understanding of similarity, Drivers of Liking®, and Landscape Segmentation Analysis®.

In this course, you will actively:

- Construct maps with products and consumer ideal points and identify products’ strengths and weaknesses using descriptive and analytical data
- Find consumer segments using individual ideals
- Use mapping results to improve existing products and conduct computer-aided design of new products
- Learn to visualize emotion spaces to more completely understand your consumers’ experiences

## WEDNESDAY (NOV. 7, 8am - 4pm)

### Topics

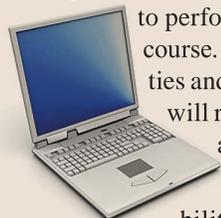
- ◆ Introduction to Sensory and Drivers of Liking® spaces
- ◆ Just-about-right (JAR) and ideal point models
- ◆ Choice models - ranking, first choice, first-last choice, logit vs. Thurstonian
- ◆ Mapping hedonic data
- ◆ Factor analysis, External preference mapping
- ◆ Introduction to unfolding and Landscape Segmentation Analysis® (LSA)
- ◆ How to identify Drivers of Liking®

### Cases

- ◆ Using an ideal point model to analyze JAR data
- ◆ Factor analysis on category appraisal data
- ◆ External preference mapping on consumer hedonics of low fat cookies
- ◆ Landscape Segmentation Analysis on beverages
- ◆ Determining a product’s optimal sensory profile using a market appraisal study

## Hands-On Analysis

Throughout the week, you will use *IFPrograms*™ software to perform the analyses demonstrated in the course. You will be introduced to its capabilities and, upon completion of the course, you will receive a complimentary trial version accessible through the internet.



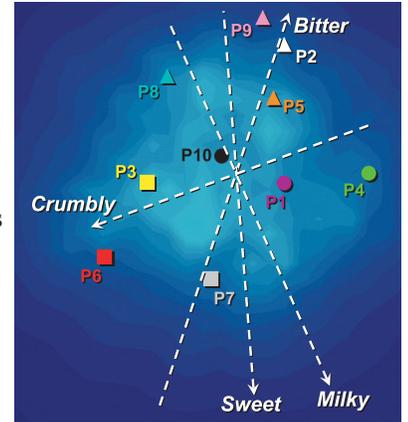
For a detailed listing of the capabilities of *IFPrograms*, please visit at

[www.ifpress.com/software](http://www.ifpress.com/software).

## THURSDAY (NOV. 8, 8am - 4pm)

### Topics

- ◆ LSA and Internal Preference Mapping (IPM): the issue of satiety
- ◆ Dimensionality of LSA: 2-D vs. 3-D
- ◆ Portfolio optimization, product predictions
- ◆ Segmentation and demographic map ellipses
- ◆ Blind vs. branded data, Benefits
- ◆ Motivations for product consumption
- ◆ Drivers of perception
- ◆ Usage occasions, Product and concept fits
- ◆ Intensity analysis
- ◆ LSA with small sample sizes
- ◆ Estimates of precision in map predictions



### Cases

- ◆ LSA and IPM of 27 category appraisals
- ◆ Product portfolio optimization for a population with three distinct segments
- ◆ Blind-branded LSA on Chardonnay wines
- ◆ Moisturizing properties of soap bar images
- ◆ Multi-country LSAs of personal care products
- ◆ Adults’ and children’s food preferences
- ◆ Usage occasions of snack bars

## FRIDAY (NOV. 9, 8am - 12noon)

### Topics

- ◆ Beyond liking to other emotional states
- ◆ Deciphering the language of emotions and development of an emotion lexicon
- ◆ LSA maps of emotion terms and states
- ◆ Comparison to factor analysis of emotion ratings
- ◆ Graph Theoretic Analysis (GTA) to develop an emotion lexicon

### Cases

- ◆ Analyzing emotion descriptors for spray deodorant
- ◆ Development of an emotion lexicon

## Meet the Instructors



**DR. DANIEL M. ENNIS** is the President of The Institute for Perception. Danny has more than 30 years of experience working on product testing theory and applications for consumer products. He has doctorates in both Food Science and Mathematical Psychology and has published extensively on mathematical models for sensory discrimination, preferential choice, identification, similarity, and multidimensional scaling. Danny has also published molecular models for taste and smell with applications to sweet taste and was the first to show that humans possess a transducer in chemical sensing. Danny consults widely within the US and internationally.



**DR. BENOÎT ROUSSEAU** is Senior Vice President at The Institute for Perception. Benoît received his Food Engineering degree from AgroParis Tech in Paris, France and holds a PhD in Sensory Science and Psychophysics. He has conducted extensive experimental research on probabilistic models and has published numerous journal articles as well as several book chapters. Benoît regularly consults with and manages projects for clients in Asia, Latin America, Europe and the US. In his teaching, Benoît is well known for his effective and user-friendly approach to introducing new ideas.



**DR. JOHN M. ENNIS** is Vice President of Research Operations at The Institute for Perception. John received his PhD in Mathematics from the University of California at Santa Barbara and conducted post-doctoral studies in the UCSB Psychology department. An active researcher, John has published in Statistics, Mathematics, Psychology, and Sensory Science, and is co-author of the book "Short Stories in Sensory and Consumer Science." John has a strong interest in the widespread adoption of best practices throughout sensory science and serves as chair of the ASTM subcommittee E18.04 - "Fundamentals of Sensory."

## Invited Speakers



**DR. JEAN-MARC DESSIRIER** is Global Science Leader for the Sensation, Perception & Behaviour expertise at Unilever, where he manages global scientific capabilities and collaborations in the area of Perception. He holds a PhD in Food Science and has performed experimental work in psychophysics and neuroscience. He has presented at numerous scientific conferences and published in peer-refereed journals and books. During his tenure at Unilever, Jean-Marc has championed the development and application of probabilistic models to the understanding of consumer needs and motivations, leading to the development of many successful global products.



**FRANK ROSSI** is Associate Director, Applied Quantitative Sciences, Kraft Foods in Glenview, Illinois, where he supports product development efforts for Kraft's divisions and consults internally with the Operations, Quality and Marketing Research Organizations. Frank has also held statistical consulting positions with General Foods Corporation and Campbell Soup Company. He has authored publications on the statistical aspects of product testing. He obtained a BS in Mathematics and an MA in Statistics from The Pennsylvania State University.



**ANTHONY J. (MANNY) MANUELE** is manager, Technical Insights and Product Development for MillerCoors where he has responsibility for all technical innovation related to products, packaging, and dispense for MillerCoors, as well as for technical competitive intelligence and consumer science. He also has an active role in MillerCoors and SABMiller international product development and innovation efforts. Manny holds a Bachelor of Science degree in Pure Science and his graduate degrees include a Master of Business Administration and a Master of Science in Organizational Leadership and Quality.

**To read papers and technical reports by your instructors, please visit [www.ifpress.com/publications](http://www.ifpress.com/publications).**

### COURSE FEE & ONLINE REGISTRATION:

Course fee includes all course materials, a copy of our latest book, "Short Stories in Sensory and Consumer Science", a trial version of *IFPrograms*,™ plus continental breakfast, break refreshments, lunches, and a group dinner per course.

Register for courses online at [www.ifpress.com/short-courses](http://www.ifpress.com/short-courses) or call 804-675-2980 for more information.

### Combinatorial Tools for Product Optimization

**November 5 & 6, 2012 (2 days) .....\$950\***

### Drivers of Liking and Emotion Mapping

**November 7, 8 & 9, 2012 (2.5 days) .....\$1,250\***

\* A 50% discount will be applied to each additional registration from the same company, for the same course

\* Academic discount available on request

**LIMITED ENROLLMENT:** Enrollment is limited to ensure individual attention, so early registration is recommended. You may hold your place by calling (804) 675-2980.

**CANCELLATION POLICY:** Registrants who have not cancelled two working days prior to the course will be charged the entire fee. Substitutions are allowed for any reason.



**LOCATION:** These courses will be held at The Greenbrier® in White Sulphur Springs, WV. Renowned for its standard of hospitality and service, The Greenbrier is an ideal location for executive meetings and consistently receives a AAA 5-Diamond rating. It is easily accessible by air from Washington DC, Atlanta, GA, or Cleveland, OH to the Greenbrier Valley Airport (LWB), and by car or train.

**HOTEL RESERVATIONS:** Participants must make their own hotel reservations; the cost of hotel accommodation is not included in the course fee. A block of rooms will be held for our registrants until four weeks before the program at a special rate of \$195. Mention *Institute for Perception* when making reservations by phoning The Greenbrier at (855) 453-4858. To learn more about The Greenbrier, visit their web site at [www.greenbrier.com](http://www.greenbrier.com).