The Institute for Perception

Fundamentals of Discrimination Testing
and
Drivers of Liking®

May 23-25, 2023
Lausanne, Switzerland
(& Virtually)

Fundamentals of Discrimination Testing and Drivers of Liking®

Hundreds of you in Sensory and Consumer Science have already downloaded Dr. Daniel Ennis' book, _Thurstonian Models_. Come to Lausanne in May and learn how the theory applies in practice!

In this course, we will describe how you can use the Thurstonian framework to successfully answer two recurring questions:

* **Discrimination testing**: How do you determine the most appropriate method for your applications that provides data that can detect differences at high power and anticipate consumer reaction to a change?

* **Drivers of Liking®**: What product characteristics drive consumer liking at an individual level and how can you build a tool for effective product development and innovation?

Why Thurstonian Models? Any scientific field, including Sensory and Consumer Science, relies on a unifying theoretical foundation to interpret research findings. Thurstonian theory provides such a foundation and it has undergone a major expansion since its beginning nearly a century ago. As a basis for interpreting data from discrimination methods, it is comprehensive, unique, and practical. When combined with the concept of unfolding it provides a psychological process interpretation of liking based on a model of similarity at the individual consumer level.

This highly interactive three-day course will cover a series of topics and learning objectives

♦ Thurstonian theory underling sensory and consumer science

♦ The broad range of Thurstonian model applications

♦ **Discrimination testing**

- Explain how consumers have preferences when experts do not detect a difference
- Avoid missing a product change opportunity
- Establish the consumer-relevance of a difference
- Objectively select the most suitable discrimination method for your panel
- Create a risk profile that optimizes your testing power and panel sample size

♦ **Drivers of Liking®**

- Learn how to select optimal sets of products for a Drivers of Liking® project
- Understand what 'unfolding' is and how to use it to produce a drivers of liking space
- Compare different preference mapping techniques and select the most suitable approach
- Conduct product portfolio optimization to identify opportunities and optimal sensory profiles
- Predict the success of existing or new products without further consumer testing

TUESDAY, MAY 23
(8:30 - 16:30)

Thurstonian Models and Discrimination Testing

Topics

♦ The broad range of Thurstonian models: Triads and tetrads, dual pair, m-AFC, triangle, duo-trio, same-different, degree of difference, applicability scoring, first-last choice, maxdiff, just-about-right scales, category scales, and ranking

♦ Response-based analysis vs. Thurstonian models

♦ Thurstonian models for discrimination testing: Variability, decision rules, d' values and variances

♦ Detailed account of common difference testing methods: 2-AFC, duo-trio, triangle, tetrad

♦ A better alternative to proportion detectors in the population

♦ Why the tetrad is superior to the triangle and duo-trio methods

♦ Power and sample sizes for difference testing methods

Cases _(IFPrograms® exercises)_

♦ Ingredient supplier change: Texture of cookies using 2-AFC and triangle

♦ Consumer preference without a sensory difference

♦ Variability in proportion detector estimates

♦ Estimating panel sample sizes as a function of method, power, α, and size of the difference

Register online at www.ifpress.com/courses or call +1 (804) 675-2980

WEDNESDAY, MAY 24 (8:30 - 12:30) — Thurstonian Models and Discrimination Testing *(Cont.)*

Topics

- Consumer-relevant action standards and how to create them
- Same-different vs. paired preference for consumer relevance
- Risk and sample size when switching to the tetrad method
- Building a successful internal sensory program

Cases *(IFPrograms® exercises)*

- Same-different method to establish consumer relevance (δ_R)
- Linking internal panel and consumer sensitivities
- Switching from the triangle to the tetrad method
- Internal sensory program development at a major food company

WEDNESDAY, MAY 24 (13:30 - 16:30) — Thurstonian Models and Drivers of Liking®

- Why liking and utility are forms of similarity
- Why link consumer and sensory data?
- The sensory space in contrast to the Drivers of Liking space
- How to plan a category appraisal *(IFPrograms® exercises)*
  - Product selection using graph theory
  - Method comparison to generate sample presentation orders
  - Multiple day effect, complete vs. incomplete block designs
- First mapping option for **ingredient change project**
  - Factor analysis and its limitations
  - Assumptions and potential limitations of the approach

THURSDAY, MAY 25 (8:30 - 16:30) — Thurstonian Models and Drivers of Liking® *(Cont.)*

- Introduction to Landscape Segmentation Analysis® (LSA): Liking as a form of similarity *(IFPrograms® exercises)*
  - Successive analytical steps
  - Unfolding—combining models from Thurstone and Coombs
- Applications of LSA principles to **ingredient change project** *(IFPrograms® exercises)*
  - Creating the product and consumer ideal point space
  - Studying consumer segmentation
  - Regressing sensory and analytical information to uncover the drivers of liking
- Limitations of internal and external preference mapping that do not account for perceptual variance and individual ideal points
- Application of LSA to 27 real-world category appraisals

- Using the Drivers of Liking Space *(IFPrograms® exercises)*
  - Creating optimal product sensory profiles and portfolios
    - o Maximizing consumer satisfaction (absence of competition)
    - o Best strategy to avoid cannibalization
    - o Maximizing first choice against competition
    - o Using machine learning to characterize uncovered consumer subgroups
- Extending the use of an LSA space: New product predicted performance *(IFPrograms® exercises)*
  - Determine the spatial location of new products using their sensory and analytical profiles
  - LSA as a computer-aided design tool: Predict consumer acceptability using ideal points without new consumer testing
- Novel applications of LSA in the real world
- Course conclusions

REGISTRATION

What You Will Learn!!

- Fundamental Thurstonian theory underling sensory and consumer science giving you a broad foundation for thinking about issues in the field
- Procedures for discrimination testing methods and why some difference testing methods are up to 100 times more expensive to conduct than others
- Transitioning to the tetrad method from the triangle test
- What 'unfolding' is and how to use it to produce a Drivers of Liking space
- Learn how to select optimal sets of products for a Drivers of Liking project
- Compare different liking models and understand why they differ
- Construct maps with products and consumer ideal points and identify population segmentation

If you are unable to attend in person, these courses will also be live-streamed. If you attend virtually, you will be sent a link by email with instructions on how to join the meeting with the speakers and other attendees. All supporting materials will be mailed to you before the event, so please register early to allow for sufficient shipping time.

To learn more about Hotel Royal Savoy Lausanne, visit their website at www.royalsavoylausanne.com/en.

LOCATION
The Course will be presented at the Hotel Royal Savoy Lausanne, Switzerland, one of Switzerland's most prestigious art nouveau hotels.
Enjoy gorgeous views of the Alps and Lake Geneva.

LODGING
Lodging is not included in the course fee.
Suggested Lodging:
Hotel Royal Savoy Lausanne - 0 m
Carlton Lausanne Boutique Hotel - 100 m
Beau-Rivage Palace - 500 m
Hôtel Agora Swiss Night by Fassbind - 500 m
Mövenpick Hotel Lausanne - 700 m
Château d'Ouchy - 700 m

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

Featured Speakers

Dr. Daniel M. Ennis
The Institute for Perception
President

Dr. Benoît Rousseau
The Institute for Perception
Senior Vice President

William Russ
The Institute for Perception
Computational Market Researcher
and Lead Programmer

Stephen McIngvale
Molson Coors Beverage Company
Technical Consumer Insights
and Sensory Specialist

Program Fees

	Non-E3S Country Member	E3S Country Member
In-person	US $2250	US $1125
Live stream	US $1875	US $935

Fees Include:

- Printed manuals of slides and software exercises
- A printed copy of our case-bound book, *Tools and Applications of Sensory and Consumer Science* and a PDF download of our book: *Thurstonian Models: Categorical Decision Making in the Presence of Noise*
- Food and beverage refreshments each day, plus lunch Tuesday to Thursday, and dinner on Tuesday and Wednesday (for in-person attendees)
- A 3-month free trial of IFPrograms® Professional version
- A 50% fee discount (from full price) is available for academics
- A 10% fee discount for multiple registrations (contact us)

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