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Nota di contenuto	Quantitative Sensory Analysis: Psychophysics, Models and Intelligent Design; Copyright; Contents; Preface; 1 Psychophysics I: Introduction and Thresholds; 1.1 Introduction and Terminology; 1.2 Absolute Sensitivity; 1.2.1 The Threshold Concept; 1.2.2 Threshold Theories; 1.2.3 Other Types of Thresholds; 1.3 Methods for Measuring Absolute Thresholds; 1.3.1 The Method of Limits; 1.3.2 Forced-Choice Method of Limits; 1.4 Differential Sensitivity; 1.4.1 The Difference Threshold; 1.4.2 Methods for Measuring Difference Thresholds; 1.5 A Look Ahead: Fechner's Contribution Appendix 1.A Relationship of Proportions, Areas Under the Normal Distribution, and Z -Scores Appendix 1.B Worked Example: Fitting a Logistic Function to Threshold Data; References; 2 Psychophysics II: Scaling and Psychophysical Functions; 2.1 Introduction; 2.2 History: Cramer, Bernoulli, Weber, and Fechner; 2.3 Partition Scales and Categories; 2.4 Magnitude Estimation and the Power Law; 2.4.1 The Method Evolves; 2.4.2 The Power Law and the Method Become Linked; 2.4.3 Ratio Scales for Hedonics?; 2.5 Cross-Modality Matching; Attempts at Validation; 2.5.1 Magnitude Production 2.5.2 Cross-Modality Matching 2.5.3 Magnitude Matching; 2.5.4 Trouble and Worry. The Variable Exponent; 2.6 Two-Stage Models and

Judgment Processes; 2.6.1 The Personal Exponent; 2.6.2 Anderson's Approach: Functional Measurement; 2.7 Empirical Versus Theory-Based Functions; 2.8 Hybrid Scales and Indirect Scales: A Look Ahead; 2.9 Summary and Conclusions; Appendix 2.A Decibels and Sones; Appendix 2.B Worked Example: Transformations Applied to Non-Modulus Magnitude Estimation Data; References; 3 Basics of Signal Detection Theory; 3.1 Introduction; 3.2 The Yes/No Experiment 3.2.1 Experimental Design Responses and Payoff Matrices; 3.2.2 The Dice Game Metaphor; 3.3 Connecting the Design to Theory; 3.3.1 The Model and Measuring Sensory Distance; 3.3.2 Changing Criteria; 3.4 The ROC Curve; 3.4.1 The ROC Curve: A Plot of Changing Criteria; 3.4.2 Unequal Variance of Signal and Noise and Alternative Measures of Discriminability; 3.5 ROC Curves from Rating Scales; the R -Index; 3.5.1 Confidence Ratings; 3.5.2 The R-index; 3.6 Conclusions and Implications for Sensory Testing; 3.6.1 Lessons for Sensory Evaluation; 3.6.2 Case Study: A Signal Detection Tragedy 4.2.2 Extension to Other Discrimination Tests

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## Sommario/riassunto

Sensory evaluation is a scientific discipline used to evoke, measure, analyse and interpret responses to products perceived through the senses of sight, smell, touch, taste and hearing. It is used to reveal insights into the way in which sensory properties drive consumer acceptance and behaviour, and to design products that best deliver what the consumer wants. It is also used at a more fundamental level to provide a wider understanding of the mechanisms involved in sensory perception and consumer behaviour. Quantitative Sensory Analysis is an in-depth and unique treatment of the

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