

Contents

| | |
|---|-----------|
| Translator's Preface | xi |
| Editor's Introduction | 1 |
| Touch vs. Vision | 2 |
| Touch Redux | 3 |
| The Intelligent Hand | 4 |
| Vibration Sense | 5 |
| Texture | 8 |
| Katz's Phenomenology | 12 |
| References | 17 |
| Author's Preface | 23 |
| DIVISION I: MODES OF APPEARANCE OF THE WORLD OF TOUCH | 25 |
| Section 1. Introduction | 27 |
| Editor's Notes | 31 |
| Chapter I: Critical and Methodological Preamble | 33 |
| Section 2. The Atomistic Viewpoint of Sensory Psychology | 33 |
| Section 3. The More Complex Tactual Phenomena in the Present Literature | 37 |
| Section 4. Visual and Tactual Perception | 39 |

Editor's Notes 45

Chapter II: Types of Tactual Phenomena 47

Section 5. The Monotony of Tactual Matter and the Polymorphism of its Modes of Appearance 47

Section 6. Surface Touch and Immersed Touch 50

Section 7. Volume Touch 52

Section 8. Touch-Transparent Film 53

Section 9. Qualities (*Modifikationen*) and Identifying Characteristics (*Spezifikationen*) of Surface Touch 54

Section 10. Natural and Artificial Forms of Materials 56

Section 11. Continuity of the Tactual Surface; Tactual Figure and Ground 59

Section 12. Tactual Images of Things: Memory Touches 62

Addendum. Eidetic Tactual Images and Tactual Hallucinations 68

Section 13. Refutation of Possible Objections 69

Editor's Notes 73

Chapter III: Movement as a Formative Factor in Tactual Phenomena 75

Section 14. The Bias Toward Temporal Atomism in the Approach of Previous Studies on the Psychology of Perception 75

Section 15. The Stationarity Principle in the Methodology of Earlier Tactual Experiments 77

Section 16. Movement as a Creative Force in the Sense of Touch 79

Addendum. Movement as a Creative Force in Other Sensory Domains 82

Section 17. Constancy of the Position of Objects with a Moving Touch Organ 84

Addendum. Kinetic and Motionless Figures for Humans and Animals 86

Editor's Notes 89

DIVISION II: QUANTITATIVE STUDIES OF THE TACTUAL PERFORMANCE 91

Chapter I: Studies on Surface Touch 93

Part I: Experiments on the Qualities (*Modifikationen*) of Surface Touch 93

Section 18. The Tactual Material 93

Section 19. Basic Experiment 94

Section 20. Variation in the Size of the Tactual Surfaces 96

Section 21. The Reduction of Tactual Impressions 98

Section 22. Touching without Lateral Movements on the Tactual Surface 100

Section 23. Experiments with Movement of the Tactual Surfaces 101

| | |
|--|------------|
| Section 24. Veiling Intermediaries | 109 |
| Section 25. Remote Touching, Especially in Medical Practice | 121 |
| Section 26. Tactual Performance of Body Parts not Usually Used for Touching | 123 |
| Section 27. One's Own Body as a Tactual Object | 126 |
| Section 28. Experiments with Adapted Touch Organs | 127 |
| Part II: Experiments of the Identifying Characteristics (<i>Spezifikationen</i>) of Surface Touch | 130 |
| Section 29. Recognition Time for the Identifying Characteristics (<i>Spezifikationen</i>) of Surface Touch | 130 |
| Section 30. Experiments with Amputees | 138 |
| Editor's Notes | 143 |
| Chapter II. Studies on Touch Transparency | 145 |
| Section 31. Sensitivity to Thickness | 145 |
| Section 32. Touch-Transparency of Space | 149 |
| Editor's Notes | 151 |
| Chapter III: Analysis of Touch Movements | 153 |
| Section 33. Graphically Recording the Movement of a Single Finger | 153 |
| Section 34. Movement of the Fingers in their Natural Configuration | 156 |
| Section 35. Deformation of the Fingertip in Touching | 160 |
| Editor's Notes | 163 |
| Chapter IV: The Role of the Temperature Sensation in Touch | 165 |
| Section 36. Thermal Qualities of Objects at Varied Temperatures | 165 |
| Addendum. Perspiration and Touching | 174 |
| Section 37. Temperature Gestalt and the Thermal Capacity of Objects | 175 |
| Section 38. Fashioning of the Temperature Impressions | 177 |
| Editor's Notes | 183 |
| DIVISION III: FURTHER ANALYSIS OF THE TACTUAL PERFORMANCE | 185 |
| Chapter I: The Role of the Vibration Sense in Touch | 187 |
| Section 39. Vibration Sensations in Neurological Research and in the Lives of Deaf-Mutes | 187 |
| Section 40. Vibratory Thresholds: Rejection of Visual Analogies | 194 |
| Section 41. The Independence of Vibration and Pressure Sensations | 197 |

| | |
|---|------------|
| Section 42. The Form of Vibratory Stimulation, and the Temporal Pattern of the Vibration Sensation | 200 |
| Section 43. Perception of Vibration States through the Vibration Sense | 203 |
| Section 44. The Sensory Organs of the Vibration Sense | 209 |
| Section 45. Perception of Object Properties Through the Vibration Sense | 212 |
| Addendum. The Auditory Recognition of Object Properties | 221 |
| Editor's Notes | 223 |
| Chapter II: The Contribution of Visual and Kinesthetic Processes to the Structure of Tactual Forms | 225 |
| Section 46. The Influence of Visual Representations | 225 |
| Section 47. The Influence of Kinesthetic Processes | 232 |
| Editor's Notes | 235 |
| DIVISION IV: APPLICATIONS | 237 |
| Section 48. The Psychology of Language and Perception | 238 |
| Section 49. The Sense of Touch in Education | 246 |
| Section 50. The Sense of Touch in Psychological Testing | 247 |
| Author Index | 251 |
| Subject Index | 257 |