

6.8.B.2	DIRECT WORKING MEMORY TRAINING .....	185
6.8.B.2.a	Verbal Working Memory Protocol.....	185
6.8.B.2.b	Visual-Spatial Working Memory Protocol .....	186
6.8.B.2.c	Higher-Level Central Executive Training Protocol .....	186
6.8.B.2.d	Clinical Application of Clinician-Administered Direct Working Memory Interventions.....	186
6.8.C	General Guidelines for Computerized and Clinician-Administered Working Memory Training.....	186
6.8.C.1	ACQUISITION STAGE .....	188
6.8.C.2	APPLICATION STAGE .....	188
6.8.C.3	ADAPTATION STAGE.....	189
6.9	Long-Term and Short-Term Goal Writing in the Rehabilitation for Attention Impairments .....	190
6.10	Case Example.....	194
6.11	Study Questions and Group Discussion Points.....	199

## CHAPTER 7

### Rehabilitation of Visuospatial and Praxic Impairments

Donna M. Langenbahn, PhD, FACRM

7.1	Introduction.....	203
7.2	Hemispatial Neglect After Brain Injury.....	203
7.3	Brain Injury Interdisciplinary Special Interest Group Recommendations for Treatment of Hemispatial Neglect.....	204
7.4	A General Framework for Rehabilitation of Hemispatial Neglect.....	204
7.5	Assessment Measures for Hemispatial Neglect .....	206
7.6	Systematic Visual Scanning Training.....	207
7.6.A	Principles of Systematic Visual Scanning Assessment and Training.....	207
7.6.B	Assessment of Hemispatial Neglect for Visual Scanning.....	208
7.6.C	Steps in Systematic Visual Scanning Training .....	208
7.6.C.1	TRAINING IN SINGLE-TARGET VISUAL CANCELLATION.....	208
7.6.C.2	TRAINING IN DOUBLE-TARGET VISUAL CANCELLATION .....	209
7.6.D	Systematic Visual Scanning Training With Computerized Presentation.....	209
7.6.E	Systematic Visual Scanning Training for Reading and Copying Text and Designs.....	210
7.6.E.1	READING.....	210
7.6.E.2	COPYING .....	210
7.6.E.2.a	Copying Text .....	210
7.6.E.2.b	Copying Designs (Pizzamiglio et al., 1992, p. 910) .....	211
7.6.F	Systematic Visual Scanning Training for Describing Figures and Pictures .....	211

7.7	<b>Visual Imagery Training: The Lighthouse Strategy</b>	212
7.8	<b>Contralateral Limb Stimulation or Activation With Visual Scanning</b>	213
7.8.A	Contralateral Limb Electrical Stimulation With Visual Scanning	213
7.8.B	Contralateral Limb Vibration With Visual Scanning	213
7.8.C	Contralateral Limb Activation With Task Performance and Visual Scanning	213
7.8.C.1	CONTRALATERAL LIMB ACTIVITIES PERFORMED PRIOR TO TASK PERFORMANCE	214
7.8.C.2	CONTRALATERAL LIMB ACTIVITIES PERFORMED DURING VISUAL SCANNING TRAINING	214
7.8.D	Contralateral Limb Activation With Mirror Therapy	214
7.8.E	Imagined Limb Activation	215
7.8.F	Use of a Light Board in Visual Scanning Training	215
7.8.F.1	VISUAL SCANNING WITH USE OF A LIGHT BOARD	215
7.8.F.2	VISUAL SCANNING WITH USE OF A LIGHT BOARD AND ADDED TRUNK ROTATION	217
7.9	<b>Clinical Application of Interventions for Hemispatial Neglect</b>	217
7.9.A	Activities for Visual Scanning Training With or Without the Lighthouse Strategy	217
7.9.A.1	ACTIVITIES FOR THE ACQUISITION STAGE	217
7.9.A.2	ACTIVITIES FOR THE APPLICATION STAGE	218
7.9.A.3	ACTIVITIES FOR THE ADAPTATION STAGE	219
7.9.B	Activities for Training in Limb Activation With or Without Visual Scanning Training (Visuo-Spatio-Motor and Spatio-Motor Strategies)	219
7.10	<b>Impairments of Visuospatial and Visual Organization Skills After Brain Injury</b>	219
7.11	<b>Brain Injury Interdisciplinary Special Interest Group Recommendation for Treatment of Impairments in Visuospatial and Visual Organization Skills</b>	220
7.12	<b>A General Framework for Rehabilitation of Visuospatial and Visual Organization Skills</b>	220
7.13	<b>Assessment Measures for Impairments in Visuospatial and Visual Organization Skills</b>	221
7.14	<b>Training in Visual Organization Skills</b>	222
7.14.A	Pattern Recognition	222
7.14.A.1	TRAINING WITH LOCUS OF WORDS FOR TEXT PATTERN RECOGNITION	222
7.14.A.2	TRAINING WITH DOT CONFIGURATIONS FOR NONVERBAL PATTERN RECOGNITION	223
7.14.B	Sequential Analysis	225
7.15	<b>Training in Somatosensory Awareness and Spatial Organization</b>	226
7.15.A	Somatosensory Awareness	226
7.15.B	Spatial Organization—Size Estimation	227

7.16 Clinical Application of Treatment for Impairments in Visuospatial and Visual Organization Skills .....	228
7.17 Apraxia After Brain Injury .....	228
7.18 Brain Injury Interdisciplinary Special Interest Group Recommendation for Treatment of Apraxia .....	229
7.19 A General Framework for Rehabilitation of Apraxia .....	229
7.20 Assessment Measures for Apraxia .....	230
7.21 Treatment of Apraxia .....	231
7.21.A Gestural Training for Apraxia .....	231
7.21.B Strategy Training for Apraxia .....	232
7.21.B.1 PHASES OF STRATEGY TRAINING FOR APRAXIA .....	232
7.21.B.2 TECHNIQUES FOR GIVING INSTRUCTION, ASSISTANCE, AND FEEDBACK IN STRATEGY TRAINING FOR APRAXIA .....	233
7.21.B.3 CLINICAL APPLICATION OF APRAXIA STRATEGY TRAINING .....	233
7.22 Long-Term and Short-Term Goal Writing in the Rehabilitation of Impairment of Visuospatial and Praxic Functioning .....	235
7.23 Case Example .....	240
7.24 Study Questions and Group Discussion Points .....	244

## CHAPTER 8

### Rehabilitation of Social Communication Impairments

Rebecca D. Eberle, MA, CCC-SLP, BC-ANCDS, FACRM

Kristen Dams-O'Connor, PhD, FACRM

8. Rehabilitation of Social Impairments .....	249
8.1 Introduction .....	249
8.2 Impairments of Social Communication After Brain Injury .....	249
8.3 Brain Injury Interdisciplinary Special Interest Group Recommendations for the Rehabilitation of Impairments of Social Communication .....	251
8.4 A General Framework for the Rehabilitation of Social Communication .....	252
8.5 Assessment and Rating Scales for Social Communication Skills .....	255
8.6 Individual Remediation of Communication and Pragmatic Language Functioning .....	255
8.6.A Reading Comprehension .....	255
8.6.B Metaphor Interpretation .....	256
8.7 Individual Treatment of Emotion Perception Skills .....	257
8.7.A Facial Affect Recognition .....	258
8.7.B Emotional Prosody Recognition .....	258