

Subject Index

- Afferent responses 101
Afferent thresholds, relationship to
 psychophysical thresholds 98–100
Amnesia, hierarchical concepts 49–53
Amygdala kindled seizures 79
Amygdala stimulation 80
Anderson, William Charles 3
Anismus syndrome 174
Apraxia 117
Auerbach's plexus 173
Autonomic nervous system 169
- Basal ganglia 77–84, 123–142
 computations performed by 135–138
 connections of 123–125
 in neonatal seizures 82–83
Bastian, Dr 12
Bentham, Jeremy 7
Brain, William Russell 31
Brain–mind interaction 43
Brain–mind theories 41, 43
Brain stem reflexes 175
Brain stem systems 174
Brown-Séquard, Charles Edouard 6, 12, 17
Buzzard, Sir E. Farquhar 6
Buzzard, Thomas 14
- Caudate nucleus
 head of 126–128
 tail of 128–129
Cerebellar disease 120
Cerebellum
 functional regions 160
 hierarchies in 159–167
 role in motor performance 120
Cerebral cortex 47, 151
Charcot, Jean 18, 19, 20, 21, 29, 34, 59
Claparède phenomenon 51, 52
Clonic convulsions 77–79
Concomitance, doctrine of 40
Consciousness, Hughlings Jackson's views
 on 39–47
Continence 170
Cortical stimulation 177–178
Cortical visual processing 87
Cushing, Harvey 33
- Darwin, Charles 7, 11, 18
Defaecation 170–171
 cortical localisation of function of 175
Detrusor/sphincter dyssynergia 176
Dewhurst, K. 6
Dodgson, C. L. (Lewis Carroll) 33
- EEG 58, 62, 65–69, 73
Efference copy 118
Eliot, George 8
EMG 145, 146, 171
Epilepsy 57–58
 and insanity 59
 and psychiatry 59–63
 and psychopathology 60
 hierarchical concepts of 57
 Jacksonian 19, 57, 59
 neuronal theory of 58
 partial 77–84
 personality disorders and psychoses in
 relationship to 61
 physiological definition of 58
 see also Photosensitive epilepsy; Temporal
 lobe epilepsy
Episodic memory 52, 53
Error monitoring and correction 118
Evans, Mary Ann 8
Eye movement disorders 151–158
- Faecal continence 170
Ferrier, D. 18, 57, 113, 151, 152
Flexner, Abraham 25
Focal cortical seizures 79
Focal motor seizures 77
Foerster, Otfried 21, 175, 177
France, Anatole 14
Freud, Sigmund 19, 21–22, 27
Frontal eye field (FEF) 151–157
Frontal lobe lesions 175
- GABA-ergic agents 79–82
Gall, Franz Josef 11, 18
Glabrous skin of the human hand 95
Globus pallidus 78
Gowers, Sir William 14, 143
Greenblatt, S. H. 12

- Hall, Marshall 4, 11
 Hammond, William A. 26, 27
 Head, Henry 31–36
 Head, Ruth (*née* Mayhew) 33–35
 Hebb hypothesis of synaptic modification 137
 Hughlings Jackson, John
 and American neurology 25–29
 and epilepsy 19, 57–59
 and European neurology 17–23
 and memory 49–54
 authors quoted by 18–19
 birth 3
 clinical neurological practice 113
 death 3, 19, 35
 description of disordered motor
 function 114
 doctrine of concomitance 40
 education 3–5
 hierarchical concepts of nervous function 9
 historical introduction 3–10
 journal references 19
 life and work of 11–15
 life in London 5–7
 marriage 6, 13
 personality 6
 retirement 6
 study of medicine at York 17
 views on consciousness 39–47
 see also London Hospital; National Hospital
 Human hand, tactile units in 95
 Hume, David 7
 Hutchinson, Jonathan 5, 6, 12–14, 31
 Hutchinson, Jonathan Jr. 31
 Huxley, Thomas 7, 11
 Hypergraphia in temporal lobe epilepsy 62
 Hyposexuality in temporal lobe epilepsy 62
- Incontinence 169
 Information processing 123–142
 Ingvar, David 39
 Insanity, and epilepsy 59
 International League Against Epilepsy 57
 Involuntary movement disorders 117–118
- Jackson, Charles 14
 Jackson, Elizabeth Dade 6, 13
 Jackson, Evelyn Margaret 14
 Jacksonian epilepsy 19, 57, 59
 James, William 20, 28–29
 Johnson, Samuel 34
 Jokes, psychology of 50
- Korsakoff's syndrome 51
 patients 50, 52
- Lamarck, J. B. 11, 18
 Langdon-Down, J. L. H. 31
 Lateral geniculate nucleus (LGN) 87, 88
- Laycock, Thomas 3, 4, 11, 17
 Leucine-enkephalin (LEU-ENK) 173
 Levels of Processing concept 50
 Limbic seizures 79–80
 induced in rats by pilocarpine 80–82
 protection against 81
 Lister, Sir William 31
 Little, W. J. 31
 London Hospital 4–9, 13, 31–36
 Lower motor neuron lesions 115
 Lucas, Keith 33
 Lyell, Charles 11
- Manning, Cardinal 34
 Margenau, Henry 43–45
 Mayhew, Ruth (later Head) 33–35
 Medial longitudinal fasciculus (MLF) 152, 153
 Meissner units 94–108
 Memory, concept of hierarchy in 49–54
 Mental centres 151
 Mental events 43
 Mercier, C. 8
N-methyl-D-aspartate (NMDA) 80, 81
 Microstimulation 102–106
 Micturition 170–171
 cortical localisation of function of 175
 functional disorder of 176
 Mill, John Stuart 7
 Minnesota Multiphasic Personality Inventory
 (MMPI) 61
 Mitchell, Silas Weir 8, 26, 28
 Motor programs
 interruption of 118
 ordering of 119–120
 organisation of 118–120
 Motor system 113–122
 cerebellum, role of 120
 effect of lesions on 115–118
 internal monitoring of 118
 Mourgue R. 20, 21
 Muscle afferents 143–149
 Muscle fibres, Type 1 and Type 2 173
 Myoclonus of striatal origin 82
- National Hospital for the Paralysed and
 Epileptic 6, 7, 12, 14, 33, 57
 Neonatal seizures 82–83
 Nervous system, evolution of function
 within 9
 Netley Military Hospital 33
 Neural events 43
 Neural pathways subserving pelvic
 sphincters 176–177
 Neurons, task-groups of 120–121
 NMDA 80, 81
- Object consciousness 47
 Onuf nucleus 172–173

- Osler, William 28
Owen, Richard 11, 20
- Paget, Sir James 3, 6
Paramedian pontine reticular formation (PPRF) 152, 153
Parieto-occipital cortex 160
Parkinson, James 31
Parkinson's disease 116–117, 138–139, 143–149, 174
Partial epilepsy 77–84
Perception, hierarchical view of 50
PET scan 62
Photosensitive epilepsy 65–75
 pathogenesis of seizures 70
 practical aspects 74
 site of seizure triggering 65–75
 timing of seizures 67–70
 visual discomfort 70–72
 visual stimuli responsible for seizure 65
Pick, Arnold 20
Pilocarpine, limbic seizures induced in rats by 80–82
Poland, Alfred 5
Postural adjustment 119
Procedural learning 53
Psychology of jokes 50
Psychomotor seizures 77
Psychopathology and epilepsy 60
Psychophysical responses 101
Psychophysical thresholds
 relationship to afferent thresholds 98–100
 to touch stimuli 95–97
Purkinje cells 160, 163
Putnam, James Jackson 9, 27–28, 129–130
- Recency effect 51
Religiosity in temporal lobe epilepsy 62
Ribot, Theodule 21
Riddoch, George 31
Roland, P. E. 47
Russell, Risien 14
Ryle, Gilbert 49
- Schizophrenia, predisposition to 62
Semantic memory 52, 53
Sensation 93–109
Sensorimotor cortex 118
Sherren, J. 33
Sherrington, C. S. 33
Single fibre microneurography 93–109
Smethhurst, Dr 14
Somatic nervous system 169
Somatostatin (SST) 173
Spencer, Herbert 7–8, 12–13, 18, 25, 39, 113
Sphincter assessment 177–178
Sphincter control 169–180
 hierarchies in 172
 neural pathways subserving pelvic sphincters 176–177
 striated musculature 173–174
 suprasegmental organisation of 174–176
Spinal cord lesions 176
Stephen, Vanessa 35
Striatal function, disturbances of 138–139
Striatal lesions 125–126
Striato-pallido-nigral system 136
Striatum
 nature of processing within 133–135
 neuronal activity in 126–132
 segregation of function within 132–133
Subject consciousness 47
Substantia nigra 78
 pars reticulata (SNpr) 151, 154–155, 157
Supplementary eye field (SEF) 153–157
Supplementary motor area 42, 43, 153
- Tay, Warren 31
Taylor, Sir James 6
Temporal lobe epilepsy 59–63, 77
Thompson, William 26
Threshold curves 100–101
Touch stimuli
 psychophysical thresholds to 95–97
 thresholds of primary afferents to 98
Tower of Hanoi 52
Tuke, Daniel 3, 59
Turners Lane Hospital 26
- Upper motor neuron lesions 115–116
Urinary continence 170
- Vasopressin intestinal peptide (VIP) 173
Ventral striatum 130–132
Vestibulo-ocular reflex (VOR) 164–165
Visual system 87–92
Voluntary movements 119
 visual guidance of 161
von Baer, Karl E. 8, 11
von Monakow, Constantin 20, 21
- Wallace, Russell 11
Walshe, Sir Francis 143
Whewell, William 7
Will 41–42
- X-ray proctography 171
- Youmans, Livingston 13
Young, G. M. 11