

Index

- Absentmindedness, 94
- Adrenal glands. *See*
 - Hypothalamic-pituitary-adrenal (HPA) stress response
- Affective style, 77–78, 87–88
 - nature and measurement of, 78–85
 - scales, 82
 - parameters of, 79
 - plasticity and, 85–87
 - time course variables, 79–80
- Aggression in rhesus monkeys,
 - gene-environment interaction, serotonin and, 17–24
- AIDS. *See* HIV
- Alarm reaction, 42
- Allodynamic processes, 110
- Allostasis
 - allostatic load and, 43–45, 47, 135
 - general adaptation syndrome and, 41–43
 - mediators of, 45–46
- Allostatic overload, 43, 45
- Allostatic states, 44
- Amnesic patients, 99–100, 102
- Amygdala, 123–126
- Androstadienone, 70–74
- Arched-back nursing (ABN)
 - mothers, 7, 12
- Attachment. *See* Social bonds
- Autoimmune inflammation, 31
- Autonomic nervous system, 110–113, 135
- Autonomic space (model), 112
- Autonomic states, 112
- Beliefs (positive), impact on health, 133–137
- Bernard, Claude, 29
- Bias (memory), 95
- Bindra, Dalbir (“D.B.”), 1
- Biological response systems and social perturbations, model of link between, 32–33
- Blocking (memory), 94–95

- Cardiovascular system, stress and, 47–48, 112, 113
- Cognition. *See* Emotion, cognition, and the brain; *specific topics*
- Cognitive dissonance, 102
- Colocalization, 58
- Corticotropin-releasing factor (CRF), 7
- Corticotropin-releasing hormone (CRH), 59
- Cytosine methylation, 10
- Damasio, Antonio, 122–123
- Damasio, Hanna, 122–123
- Defensive responses to threat. *See under* Maternal behavior
- DNA, 9
- DNA methylation, 9–11
- Dopamine, 11
- Emotion, cognition, and the brain, 114, 121–123, 129–130. *See also* Affective style lesion studies, 122–127 neurosurgical studies, 126–128
- Emotional states, positive. *See* Beliefs
- Encoding, semantic vs. nonsemantic, 97–98
- Estrogen, 11, 139–140
- Exhaustion, 42, 43
- Exon 1₇, 8–11
- F1 intercrosses, 34–35
- Facial expressions, 125–126, 128
- Family environments, “risky” and stress responses, 137–138
- “Fight or flight” response, 41–42
- Forgetting. *See* Memory, seven sins of
- General adaptation syndrome, Selye’s allostasis and, 42–43, 49
- Genetics environment and, 3–5, 15 disease and, 33–35 (*see also specific diseases*) importance, 4–5
- Glucocorticoid receptors, hippocampal, 7–8
- Glucocorticoids, stress and, 48
- Gomez, Maria, 35
- Grooming. *See* Licking and grooming
- Hebb, Donald, 2
- Hippocampal glucocorticoid receptors, 7–8
- Hippocampus, 100
- HIV, and impact of positive beliefs on health, 133–135
- Homeostatic reflex mechanisms, 110–111
- Hormones, stress, 47, 113. *See also specific hormones*
- 5-Hydroxyindoleacetic acid (5-HIAA), 18–22
- Hypothalamic-pituitary-adrenal (HPA) stress response, 6–8, 31, 32, 42–43, 135

- Immunology, 30–31, 133–135
stress and, 47
- Inflammatory susceptibility,
31
neuroendocrine stress response
and, 31–32
- Information processing, 124, 127.
See also Emotion, cognition,
and the brain
- Insulin, stress and, 48
- Interdisciplinary teams,
broadening approach to
research through, 36–37
- James-Lange theory of emotion,
114
- Lesch, K. P., 22–23
- Lesion method and lesion
studies, 122–127
- Licking and grooming (L&G),
maternal, 6–8, 10–12
- Linnoila, Markku, 16, 18
- Loneliness and health, 113
- Love
nature of, 54
neurobiology of, 61
sex differences in mechanisms
of, 59–60
- Loving and being loved, reasons
for, 54–56
- Luteinizing hormone (LH), 67,
69
- Maternal behavior, 139. *See also*
Family environments
and aggression in offspring,
17–18
and development of defensive
responses to threat, 4–8,
11–13
individual differences in, 11–13
- Maternal-pup interactions, from
F1 intercrosses to, 35
- McEwen, Bruce S., 2
- Medial preoptic area (mPOA), 11
- Medial temporal lobe, 99–100
- Meditation, mindfulness, 86–87
- Memory, 93–94
seven sins of, 94–96
absentmindedness, 94
bias, 95
blocking, 94–95
misattribution, 98–101
persistence, 95
suggestibility, 95
transience, 94, 96–98
- Metabolism, stress and, 48
- Misattribution, 98–101
- Nature-nurture debate. *See*
Genetics, environment and
- Nerve growth factor-inductible
factor (NGFI-A), 8, 10–11
- Neuroendocrine stress response,
113
and inflammatory susceptibility,
31–32
- Neuroendocrinology, 30–31
- Neuroscience, social. *See* Social
neuroscience
- Nursing, 6–7, 12

- Odors, social. *See* Pheromones; Vasanas
- Orthostatic stressors, 111, 112
- Oxytocin
estrogen and, 139–140
as hormone of love, 53, 57–59
- Parasympathetic nervous system, 110–113
- Parental care, 54–55. *See also* Maternal behavior
- Persistence of memories, 95
- Phenotype, 3
- Pheromones. *See also* Vasanas
ovarian primer, 65
causes, 66–68
function, 67–68
levels of organization, 66
perspectives, 69
time spans, 68–69
- Pituitary gland. *See* Hypothalamic-pituitary-adrenal (HPA) stress response
- Positive and Negative Affect Scales (PANAS), 82
- Prefrontal asymmetry, 80–85
- Preoptic area, medial, 11
- Psychobiology and social problems, 108
- Psychoneuroimmunology, 133–135. *See also* Immunology
- Recognition
emotion, 124–128
false, 98–100
- Reductionism, viii, 108
- multilevel analyses and, viii, 107–109, 115–118
- Relaxation. *See* Meditation
- Reproduction, 54–55
- Resistance (stress response), 42
- Riley, Anthony, 35
- Self-reference effect, 97–98
- Selye, Hans, 41–44, 49
- Semantic encoding, 97–98
- Serotonin (5-HT), 7, 18–19
- Serotonin transporter gene (5-HTT), 23–24
- Social bonds, 58–59
how they protect, 55–57
- Social chemosignals, 65. *See also* Pheromones; Vasanas
- Social dominance relationships, 17
- Social interactions and moods. *See* Vasanas
- Social isolation and health, 113
- Social neuroscience and
multilevel analyses, 109, 115–118
bottom-up influences, 113–115
micro and macro perspectives, 116
top-down influences of social factors, 110–113
- Social perception, 121–122. *See also* Emotion, cognition, and the brain
- Social perturbations and
biological response systems,
model of link between, 32–33

- Social stressors. *See* Stressors
- Social support, 137
- Somatosensory cortices, 127–128
- Stewart, Jane, 1
- Stress mediation, central role of
 - brain in, 46
- Stress mediators, 41. *See also*
 - Allostasis
- Stress responses, 41–42, 112,
 - 139–140. *See also* Meditation
 - neuroendocrine, 31–32, 113
 - positive resources and, 136–137,
 - 140
 - protection and damage, 47–49
 - and tending to others, 137–138
- Stressors, social-cognitive and
 - orthostatic, 111, 112
- Substance abuse, 59
- Substitutionism, 108
- Suggestibility (memory), 95
- Sympathetic nervous system
 - (SNS), 110–113, 135

- Temporal lobe, medial, 99–100
- “Tend and befriend” response, 42
- Tend-and-befriend model,
 - 139–140
- Transience (memory), 94, 96–98

- Vasanas, 69–70
 - causes, 71–72
 - levels of organization, 70–71
 - perspectives, 73–74
 - time spans, 72–73
- Vasopressin, 60
- Violence. *See* Aggression