

# Subject Index

Note: Page numbers followed by an “f” indicates the entry is in a figure, and a page number followed by a “t” indicates the entry is in a table.

## A

- Abnormal behavior, 459–460, 459f. *See also*
  - Psychological disorders
- Absolute threshold, 119, 119t, 120f
- Abuse, domestic violence and, 338–339
- Academic success, poverty and, 92
- Accommodation, 141, 306, 307f
  - depth perception and, 140
  - aging and, 303
- Acculturative stress, 86–87
- Acetylcholine, 52t
- Achievement measurement, 400
- Achievement motivation, 399–400
- Acquisition
  - classical conditioning and, 192, 191t, 191f, 193f, 204t
  - operant conditioning and, 201, 201f, 204t
- Acronyms, 232
- Action potential, 48
- Activation-synthesis theory of dreams, 163
- Active listening, 500
- Active reading, 33–34
- Activity theory of aging, 339
- Actor-observer effect, 535, 535f
- Acute stress, 83–84
- Adaptation-level phenomenon, 417
- Adaption/protection theory of sleep, 162
- Adderall, 333
- Addiction, 168
  - addictive disorders, 463t
  - career costs of, 170
  - different cultures and, 174
  - psychoactive drugs and, 168
- Adler, Alfred, 428
- Adolescent development
  - brain changes and, 302, 302f
  - growth spurts and, 301, 302f
  - physical development, 301–302
  - puberty and, 301–302
  - secondary sex characteristics and, 302, 302f
  - sleep and, 302
  - teenage brain and, 302, 302f
- Adolescent egocentrism, 310, 310f, 311
- Adolescent narcissism, 310, 310f
- Adoption studies, personality and, 443, 443f
- Adrenal glands, 52t, 53, 84, 96
- Adrenaline (epinephrine), 52t, 53, 96
- Adult development
  - ageism and, 304–305
  - brain in late adulthood, 304
  - cellular-clock theory, 304
  - emerging/young adulthood, 303
  - Hayflick limit and, 304
  - late adulthood, 303–304
  - male climacteric and, 303
  - menopause and, 303
  - middle adulthood, 303
  - physical development, 303–305
  - secondary aging and, 304
  - wear-and-tear theory and, 304
- Adulthood
  - aging and, 339–340
  - attachment styles in, 316–317
  - challenges of, 335–341
  - divorce and, 336
  - domestic violence and, 338–339
  - empty-nest syndrome and, 342, 342f
  - enduring love and, 336–338
  - grief, death, and dying, 342–345
  - midlife crises and, 342
  - relationships and, 335–339
- Advertising, 190, 190f
- Aerial perspective, 141
- Age-related positivity effect, 340
- Ageism, 304–305
- Aggression, 554–555
  - biological factors and, 554–555
  - conflicts and, 382
  - psychosocial factors and, 555
  - reduction of, 555
- Aging
  - activity theory of aging, 339
  - age-related positivity effect, 340
  - brain differences and, 341
  - challenges of, 339–340
  - disengagement theory and, 339, 340f
  - happiness and, 340–341
  - hearing and, 129, 129f
  - sleep cycle and, 163, 163f
  - socioemotional selectivity theory and, 340
  - theories of, 339–340
  - work and retirement and, 339
- Agonist drugs, 51, 168, 168f
- Agoraphobia, 469
- Agreeableness, 431–432, 431f
- AIDS (acquired immunodeficiency virus), 374
- Ainsworth, Mary, 315
- Ainsworth's levels of attachment, 315
- Alcohol intake, 171–172
  - behavioral effects and, 172, 172t, 172f
  - binge drinking and, 172, 172t, 172f
  - fetal alcohol syndrome (FAS) and, 298, 298f
  - rape and, 172, 172f
  - sexual effects of, 372t
- Alcoholics Anonymous, 520
- Algorithms, problem solving and, 260
- All-or-nothing principle, 48
- All-or-nothing thinking, 504
- Altered state of consciousness (ASC), 153. *See also* Sleep and dreams
- Altruism, 556–558
  - bystander effect and, 557
  - diffusion of responsibility and, 557
  - egoistic model of helping and, 556
  - empathy-altruism hypothesis, 556
  - evolutionary theory of helping and, 556
  - Kitty Genovese case and, 556–557
  - models for, 556, 556f
  - process diagram and, 557, 557f
  - promoting helping and, 558
- Alzheimer's disease (AD), 243, 243f, 304
- American Crowbar Case, 71, 71f
- American Psychological Association (APA), 9, 11, 17
- American Sign Language (ASL), 271, 271f, 272f
- Amnesia, 242–243, 242f
  - anterograde amnesia, 242–243, 242f
  - consolidation and, 242
  - retrograde amnesia, 242–243, 242f
  - source amnesia, 236, 236f
- Amok, 462
- Amphetamine, 170, 171t
  - psychosis and, 170, 461
  - sexual effects of, 372t
- Amplitude, 123
- Amygdala, 65, 66f, 404, 404f
- Amyotrophic lateral sclerosis (ALS), 56, 56f
- Anal-expulsive personality, 427
- Anal-retentive personality, 427
- Anal stage, psychosexual, 427
- Analytical psychology, 428
- Androgyny, 358–359
- Andropause, 303
- Animism, 308
- Anorexia nervosa, 399t
- Antagonist drugs, 51, 168, 169f
- Anterograde amnesia, 242–243, 242f
- Antianxiety drugs, 511t
- Antidepressant drugs, 511–512, 511t, 512f
- Antipsychotic drugs, 511t
- Antisocial personality disorder (ASPD), 482–483
- Anxiety disorders, 463t, 467–471
  - biological factors and, 470–471
  - faulty cognitive processes and, 469
  - generalized anxiety disorder, 467–468, 468f
  - major categories of, 467, 468f
  - maladaptive learning and, 470
  - panic disorder, 468
  - phobias, 468–469
  - psychological factors and, 469–470, 469f
  - sex hormones and, 471
  - sociocultural factors and, 471
- Anxious/ambivalent attachment, 315, 316, 316f
- Anxious/avoidant attachment, 315, 316, 316f
- Apes, language research and, 271–272, 271f, 272f
- Applied research, 13–14, 14f
- Approach-approach conflict, 84
- Approach-avoidance conflict, 84
- Archetypes, 428, 428f
- Archival research, 22
- Artificial concepts, 259
- Artificial intelligence (AI), 258
- Asch, Solomon, 546, 546f
- Assertiveness, conflicts and, 382
- Assimilation, cognitive development and, 306, 307f
- Association areas, brain, 73
- Association for Psychological Science (APS), 11, 17
- Associative learning, 194
- Asylums, 460
- Attachment, 314–317
  - adulthood and, 316–317
  - Ainsworth's levels of, 315, 316f
  - infants and, 315, 316f
  - romantic attachment styles, 317
  - touch and, 314–315, 314f, 315f
- Attention, observational learning and, 209, 209f
- Attention-deficit/hyperactivity disorder (ADHD), 332–333
- Attention narrowing, 240
- Attitudes, 536–538
  - changes and, 537–538, 537f

## SI-2 Subject Index

### Attitudes (*continued*)

- culture and, cognitive dissonance and, 537–539, 538f, 539f
- formation of, 536–537, 536f

Attraction. *See* Interpersonal attraction

Attributions, 533–538

- actor-observer effect and, 535, 535f
- culture and attributional biases, 534
- errors and biases, 534–536, 535f
- fundamental attribution error and, 534, 534f
- reducing biases and, 535–536
- saliency bias and, 534, 534f
- self-serving bias and, 535

Audition. *See* Hearing

Auditory cortex, 72

Auditory stimuli, echoic memory and, 226, 226f

Authoritarian parenting style, 318t

Authoritative parenting style, 318t

Autism spectrum disorder (ASD), 333–334, 334f

Automatic encoding, 229

Automatic processes, 154, 154f

Autonomic nervous system (ANS), 59–60, 60f, 404

Autonomy vs. shame and doubt, 330f

Availability heuristic, 260–261, 260f

Aversion therapy, 506–507, 507f

Avoidance-avoidance conflict, 84

Avoidance behavior, punishment and, 200t

Awareness levels, 154, 154f

Axons, 46–47, 47f

## B

Babies, language development and, 268–269, 268f, 269t

Babinski reflex, 58f

Bandura, Albert, 208, 209f, 439–440

Barbiturates, sexual effects of, 372t

Barnum effect, 449

Basal ganglia, memory and, 239f, 240

Basic anxiety, 429

Basic research, 13–14

Bath salts, 175

Beck, Aaron, 503

Behavior, schizophrenia and, 478

Behavior change, stress management and, 105

Behavior modification, 507

Behavior recognition and change, 525

Behavior therapies, 505–509

- aversion therapy, 506–507, 507f
- classical conditioning techniques, 505–507
- ethics and, 508
- evaluation of, 508
- generalizability and, 508
- observational learning techniques, 508, 508f
- operant conditioning techniques, 507–508
- systematic desensitization and, 505–506, 506f
- virtual reality therapy, 506, 506f

Behavioral effects, alcohol and, 172, 172f

Behavioral (expressive) component, emotions and, 405–406

Behavioral genetics, 296, 442–443, 443f

Behavioral interventions, chronic pain and, 95

Behavioral observation, 445, 445f

Behavioral perspective, 6, 7t

Benevolent sexism, 359

Big Five personality traits. *See* Five-factor model (FFM).

Binet, Alfred, 273

Binge drinking, 172, 172t, 172f

Binge-eating disorder (BED), 399t

Binocular cues, 141, 142f

Biochemistry

- hunger and eating and, 395
- schizophrenia and, 478–479

Biofeedback

- chronic pain and, 95, 96f
- operant conditioning and, 204, 204f

Biological (arousal) component, emotion and, 404

Biological factors

- aggression and, 554–555
- anxiety disorders and, 470–471
- depressive and bipolar disorders, 473–474
- hunger and eating and, 394–395
- intelligence and, 283
- memory and, 238–243
- motivation and, 389–392, 389t
- schizophrenia and, 478–479
- sexual difficulties and, 368–370

Biological personality theories, 442–443

- brain structures and, 442
- evaluation of, 443
- genetics and, 442–443, 443f
- multiple influences and, 443, 443f
- neurochemistry and, 442

Biological perspective, 7t, 8

Biological preparedness, 214

Biological primes, learning constraints and, 213–214

Biological research tools, 62–63, 63t

Biomedical therapies, 510–516

- deep brain stimulation, 514, 514f
- electroconvulsive therapy (ECT), 513, 513f
- evaluation of, 514
- psychopharmacology, 510–513
- psychosurgery, 513–514
- repetitive transcranial stimulation (rTMS), 514, 514f

Biopsychologist/neuroscientist, 12t

Biopsychosocial approach, personality and, 443, 443f

Biopsychosocial model, 9–11, 10f

Biopsychosocial theories, motivation and, 393, 393f

Bipolar disorder, 472–473. *See also* Depressive and bipolar disorders

Bisexual, 352, 354, 356t, 361, 366

Blind spots, 124

Bobo doll study, 208, 208f

Body language, interpersonal attraction and, 560, 560f

Body mass index (BMI), 397

Body senses, 118t, 133–135, 134f

Body size preferences, media influences and, 210, 210f

Book smarts, 278

Borderline personality disorder (BPD), 483

Bottom-up processing, 117

Brain, 61–76

- abnormalities, schizophrenia and, 479, 479f
- adolescent development and, 302, 302f
- age-related happiness and, 341
- Alzheimer's disease and, 243, 243f
- biological research tools and, 62–63, 63t
- cerebral cortex, 68–76
- chronic stress and, 90–92, 91f
- consciousness and, 153, 153f
- depressive and bipolar disorders and, 473
- early childhood development, 299–300, 300f
- feature detectors in, 137, 137f
- forebrain, 65–67, 66f
- gender differences and, 63, 63f
- hindbrain, 64–65
- hunger and eating and, 395, 395f
- information crossover and, 69, 69f
- intelligence and, 279, 279f
- language and, 267, 268f
- late adulthood and, 304
- lateralization and, 74–75
- memory and, 239–240, 239f
- midbrain, 65
- organization of, 64–67, 64f
- personality and, 442
- reinforcement and punishment and, 212–213, 212f
- sensory processing within, 118–119, 118f
- split-brain research, 74
- stroke, 74
- training, 71–72, 72f

Brain damage, professional sports injuries and, 242, 242f

Brain lobes, 69–73, 70f

- association areas, 73
- frontal lobes, 69–72
- occipital lobes, 73
- parietal lobes, 73
- temporal lobes, 72–73

Brain scans

- biological research and, 62t, 63
- lie detection and, 415

Brain waves, sleep studies and, 160, 160f

Brainstem, 65

Brightness constancy, 142

Broca, Paul, 69–70

Broca's area, 69–70, 267

Bulimia nervosa, 399t

Burnout, 84–85

Bystander effect, 557

## C

Cancer, 92, 92f

Cannabis, 175

Cannon, Walter B., 394, 395f

Cannon-Bard theory, 407f, 408

Cardiovascular disease, 96–97

Career success, prejudice and, 544

Careers, personality matching and, 448, 448t

Careers in psychology, 11–12, 12t

Case studies, 21–22

Castration anxiety, 427

Cataclysmic events, stress and, 85–86

Catalepsy, 478

Catharsis, 555

Cats, sleep cycle in, 161

Cattell, Raymond, 273

Causation vs. correlation, 23–24, 24f, 26

Cell body, 46–47, 47f

Cell phone use, driving and, 154–155

Cellular-clock theory, adult development and, 304

Central nervous system (CNS), 56–58

- neurogenesis and, 56–57
- neuroplasticity and, 56
- spinal cord and, 57–58, 58f

Central tendency measures, A-5, A-6, A-5t, A-6t

Cerebellum, 65

Cerebral cortex, 68–76

- association areas, 73
- convolutions and, 68
- damage to, 69, 69f
- lobes, 69–73, 70f

Change, as psychological goal, 17

Character, 424

Cheap lies, 538, 538f

Children. *See also* Early childhood development

- attention-deficit/hyperactivity disorder (ADHD) and, 332–333
- creativity and, 264, 264f
- divorce and, 336
- parenting styles and, 318

- sexual abuse and, 376–377, 376f
- temperament theory and, 329
- understanding death and, 344, 344f
- Chimpanzees, language research and, 271–272, 271f, 272f
- Chomsky, Noam, 270
- Chromosomes, prenatal development and, 295–296, 297f
- Chronic pain
  - behavioral interventions and, 95
  - biofeedback and, 95, 96f
  - mindfulness-based meditation and, 95–96
  - relaxation techniques and, 95–96
- Chronic stress, 83–84
- Chronic traumatic encephalopathy, 241–242
- Chunking, 227, 227f, 249
- Cigarette cravings, 189
- Cigarette smoking, 173
- Circadian rhythms, 157–159, 157f
  - jet lag and, 158
  - sleep deprivation and, 158–159, 159f
- Circumcision, 355
- Civil disobedience, 550
- Clairvoyance, 145
- Clark, Kenneth, 9, 9f
- Clark, Mamie Phipps, 9, 9f
- Class attendance, grade improvement and, 36
- Classical conditioning, 186–194
  - acquisition phase and, 192
  - beginnings of, 187–190, 188f
  - biological primes and, 213
  - conditioned response and, 187, 189, 189f
  - conditioned stimulus and, 187
  - discrimination and, 192
  - emotional eating and, 189, 189f
  - in everyday life, 190, 190f
  - extinction and, 192
  - generalization and, 192
  - higher-order conditioning and, 192, 193f
  - neutral stimulus and, 187
  - vs. operant conditioning, 195, 195f
  - Pavlov's experiments and, 187–189, 187f
  - phobias and, 470, 470f
  - principles of, 191–193, 191t
  - spontaneous recovery and, 192
  - techniques, 505–507
  - unconditioned stimulus and, 187
- Client-centered therapy, 499, 499f
- Clinical psychologists, 12t, 521t
- Close relationships, happiness and, 415
- Club drugs, 175–176
- Cocaine, 173, 173f, 372t
- Cochlea, 128
- Cochlear implants, 129
- Cocktail party phenomenon, 137f
- Cognitive abilities, gender differences and, 362t
- Cognitive appraisal, stress management and, 100–101, 101f
- Cognitive-behavior therapy (CBT), 503, 503f
- Cognitive building blocks, 258–259
- Cognitive development, 306–313
  - accommodation and, 306, 307f
  - animism and, 308
  - assimilation and, 306
  - concrete operational stage, 310
  - conservation concept and, 308
  - egocentrism and, 308–310
  - formal operational stage, 310–311
  - gender-role development and, 363, 363f
  - object permanence and, 308, 308f
  - preoperational stage, 308–310
  - schemas and, 306
  - sensorimotor stage, 308
  - stages of, 307–311, 307f
  - Vygotsky and theory of mind, 311–313, 312f, 313f
- Cognitive dissonance, 537–539, 538f, 539f, 542–543
- Cognitive flexibility, 69
- Cognitive functioning, stress and, 90–92, 91f
- Cognitive maps, 207–208, 208f
- Cognitive offloading, 262
- Cognitive perspective, 7t, 8
- Cognitive psychologists, 12t
- Cognitive restructuring, 501, 501f
- Cognitive retraining, 542
- Cognitive-social learning, 206–210
  - cognitive maps and, 207–208, 208f
  - in everyday life, 208–210
  - insight learning, 207
  - latent learning, 207
  - observational learning, 208–209, 209f
- Cognitive therapies, 500–504
  - cognitive-behavior therapy, 503, 503f
  - cognitive restructuring, 501, 501f
  - depression and, 503–504
  - evaluation of, 504
  - metacognitive therapy, 504
  - mindfulness-based cognitive therapy, 503, 503f
  - overcoming irrational misconceptions, 502
  - rational-emotive behavior therapy, 501–502
- Cognitive (thinking) component, emotion and, 405
- Cognitive view of dreams, 164
- Cohort effects, 293
- Collective unconscious, 428
- Collectivistic cultures, 9–11, 10t
- Color vision, 126–127, 126f
  - color afterimages, 126
  - color blindness, 127
  - color constancy, 142
  - color-deficient vision, 127
  - opponent-process theory of color, 126
  - trichromatic theory of color, 126, 126f
- Commitment, 562
- Communication, differences between sexes and, 379–380, 379t
- Comorbidity, 462
- Companionate love, 563
- Comparative psychologist, 12t
- Computer-aided communication, 271, 272f
- Concrete operational stage, cognitive development and, 310
- Conditioned emotional response (CER), 189, 189f, 204t
- Conditioned response (CR), 187, 204t
- Conditioned stimulus (CS), 187, 204t
- Conditioned taste aversion, 213–214
- Conduction hearing loss, 129
- Cones, 125–126
- Confidentiality, 18
- Confirmation bias, 24, 145, 262, 449
- Conflict
  - communication issues and, 380–382
  - resolution skills, 382
  - stress and, 84
  - types of, 86
- Conformity, 545–547, 546f
  - informational social influence and, 547
  - normative social influence and, 546
  - reference groups and, 547
- Confounding variables, 28, 28f
- Consciousness. *See also* Sleep and dreams
  - automatic processes and, 154
  - brain and, 153, 153f
  - controlled processes and, 154
  - levels of awareness and, 154, 154f
  - selective attention and, 153–154
  - understanding, 153–156
- Conservation concept, cognitive development and, 308
- Consolidation, 242
- Constancies perception, 141–142, 142f
- Constructive process, 222, 248
- Consummate love, 562–563, 562f
- Contact comfort, 314–315, 314f
- Contempt, relationship conflicts and, 381
- Continuous reinforcement, 202
- Control groups, 26
- Controlled processes, 154, 154f
- Conventional morality, 325, 326f
- Convergence, 141, 142f
- Convergent thinking, creativity and, 264
- Convolutions, 68
- Coronary heart disease, 96–97
- Corpus callosum, 74, 75f
- Correlation coefficient, 22
- Correlational research, 20t, 22–26
  - confirmation bias and, 24
  - correlation coefficient and, 22
  - correlation value, 25–26
  - direction of correlation, 23
  - future research and, 26
  - illusory correlation and, 24, 25f
  - limits of correlation, 23–24
  - prediction and, 25
  - real-world settings and, 25
  - strength of correlation, 23, 23f
  - superstitions and, 25t
  - third-variable problem and, 24, 24f
- Counseling psychologists, 12t, 521t
- Crack cocaine, 173
- Creativity
  - children and, 264, 264f
  - convergent thinking and, 264
  - divergent thinking and, 264
  - psychological disorders and, 265–266
  - resources and, 265, 265t
  - three elements of, 263t
- Criterion-related validity, intelligence testing and, 275
- Critical periods, life span development and, 290–291
- Criticism, relationship conflicts and, 381
- Cross-cultural psychologist, 12t
- Cross-cultural sampling, 28
- Cross-dressing, 361
- Cross-sectional design, life span development and, 292–293, 292f
- Cross-tolerance, psychoactive drugs and, 169
- Crystallized intelligence (*gc*), 273
- Cultural bias
  - objective tests and, 447
  - psychological assessment and, 462
- Culture
  - attributional biases and, 535
  - cognitive dissonance and, 538
  - cultural display rules, 413
  - death and dying and, 344, 344f
  - food and taste preferences and, 133
  - Gestalt Laws and, 140
  - human sexuality and, 354–355
  - IQ scores and, 281
  - job stress and, 108
  - life span development and, 294, 294f
  - memory and, 236–237, 237f
  - moral development and, 327–328, 327f
  - nonverbal language and, 270–271
  - physical attraction and, 559, 559f

## SI-4 Subject Index

- Culture (*continued*)  
physical milestones and, 300  
psychological disorders and, 486, 486f, 487t  
sex problems and, 370–371, 371f  
therapy and, 523  
Culture-bound disorders, 488t  
Culture-free IQ tests, 281  
Cyberbullying, 84
- D**  
Dangerous thoughts, abnormal behavior and, 459, 459f  
Dark adaptation, 126  
Darwin, Charles, 8  
Dating appeal, using psychology and, 560  
Death and dying, 344–345, 344f  
Debriefing, 18  
Decay theory, forgetting and, 234  
Deception, 18  
Deep brain stimulation, 514, 514f  
Defense mechanisms  
psychoanalytic theory and, 425, 425f  
stress management and, 101, 102t  
Defensiveness, relationship conflicts and, 381  
Deindividuation, 551  
Deinstitutionalization, 522–523  
Delayed gratification, 440–441, 441f  
Delusions, 461, 461f, 477  
Dendrites, 46, 47f  
Denial, 102t  
Dependent (DV) variable, 26  
Depressants, 171–172, 171t  
Depressive and bipolar disorders, 472–475, 472f  
in artists and scientists, 265  
biological factors and, 473–474  
bipolar disorder, 472–473  
brain structures and functions and, 473  
cognitive approach to, 503–504  
cognitive triad of, 503, 503f  
depression as viscous cycle, 474, 475f  
depressive disorders, 463t  
diet and, 473, 473f  
gender issues and, 484–486  
genetics and, 473  
head injuries and, 474, 474f  
learned helplessness theory and, 474–475  
major depressive disorder, 472  
psychological factors and, 474–475  
sociocultural factors and, 475  
Deprivation, life span development and, 291  
Depth perception, 140–141  
accommodation and, 141  
binocular cues and, 141, 142f  
convergence and, 141, 142f  
monocular cues and, 141  
retinal disparity and, 141, 142f  
visual cliff and, 140–141, 141f  
visual cues for, 141, 141f  
Description, as psychological goal, 17  
Descriptive research, 20t, 21–22  
archival research, 22  
case studies, 21–22  
naturalistic observation, 21, 21f  
survey/interview, 21  
Descriptive statistics, A-4–A-7  
Developmental psychology, 12t, 290  
Deviance, abnormal behavior and, 459, 459f  
*Diagnostic and Statistical Manual of Mental Disorders* (DSM), 461–462, 463t  
Diathesis-stress model, schizophrenia and, 479  
Dichromats, 127  
Diet, depressive and bipolar disorders and, 473, 473f  
Difference threshold, 119, 120f  
Difficult children, 329  
Diffusion of responsibility, 557  
Digital democracy, 22  
Direction of correlation, 23  
Discrimination  
chronic stress and, 84, 84f  
classical conditioning and, 192  
operant conditioning and, 201, 204, 204f  
prejudice vs., 538, 538f  
Disembedding tests, gender differences and, 63t  
Disengagement theory, aging and, 339, 340f  
Displaced aggression, prejudice and, 540  
Displacement, 102t  
Disruptive, impulse-control and conduct disorders, 463t  
Dissociative disorders, 463t, 481–482, 481f  
Dissociative identity disorder (DID), 476–477, 481, 482f  
Disorganized/disoriented attachment, 315, 316, 316f  
Display rules, 413  
Distortions, language, 268, 268f  
Distracted driving, 155  
Distress, abnormal behavior and, 459, 459f  
Distress vs. eustress, 92  
Distributed practice, 34, 36–37, 230, 236  
Divergent thinking, creativity and, 264  
Divorce, 85, 336, 518  
DNA, prenatal development and, 295–296, 297f  
Dolphins, language research and, 271  
Domestic violence, 338–339  
Dopamine, 52t  
Dopamine hypothesis, schizophrenia and, 478–479  
Double-blind studies, 30, 30f  
Double standard, sexual behaviors and, 371  
Down syndrome, 275  
Dream analysis, 497  
Dream theories, 163–164  
activation-synthesis theory, 163  
cognitive view of dreams, 164  
gender and, 164  
latent content and, 163  
manifest content and, 163  
top ten dream themes, 165t  
wish-fulfillment view, 163  
Drive-reduction theory, motivation and, 390–391, 390f  
Drug abuse, high cost of, 174, 174f  
Drug therapy. *See* Psychopharmacology  
Duchenne smile, 405, 405f  
Dweck's mindset, 38, 38f  
Dysfunction, abnormal behavior and, 459, 459f
- E**  
Early childhood development  
brain development, 299–300, 300f  
motor development, 299–300, 299f  
physical development, 299–301  
scientific research with infants, 301  
sensory and perceptual development, 301  
Easy children, 329  
Eating problems and disorders, 396–399. *See also* Hunger and eating  
anorexia nervosa, 398  
binge-eating disorder, 398  
bulimia nervosa, 398  
causes of, 398–399  
obesity, 396–398, 397f  
symptoms of, 399, 399t  
Ebbinghaus, Hermann, 233, 233f  
Ebbinghaus's forgetting curve, 233, 233f  
Echoic memory, 226, 226f  
Eclectic therapy approaches, 517  
Educational psychologist, 12t  
EEG (electroencephalogram), 62t  
Ego, 425  
Egocentrism, 308–311  
Egoistic model of helping, 556  
Einstein, Albert, 152  
Elaborative rehearsal, 224, 230, 249  
Electroconvulsive therapy (ECT), 513, 513f, 514  
Electromagnetic spectrum, vision and, 124, 124f  
Electromyography (EMG), 96, 96f  
Electronic therapy, 521  
Elimination disorders, 463t  
Ellis, Albert, 501–502, 502f  
Embodied cognition, 258  
Embryonic period, prenatal development and, 297, 298f  
Emerging/young adulthood, physical development and, 303  
Emotion  
autonomic nervous system and, 404  
behavioral (expressive) component and, 405–406  
biological (arousal) component, 404  
Cannon-Bard theory and, 407f, 408  
cognitive (thinking) component and, 405  
components and theories of, 403–411  
culture and evolution and, 411–413, 412f  
emotion-focused coping, 100  
emotional eating, 189, 189f  
experiencing emotions, 411–417  
facial-feedback hypothesis, 409–410, 409f  
fast and slow pathways and, 404, 404f  
happiness psychology, 415–417  
James-Lange theory and, 407–408, 407f  
limbic system's role in, 404, 404f  
nonverbal cues and, 406  
polygraph as lie detector, 414–415, 414f  
psychosocial factors and, 413–414  
sample basic emotions, 412, 412f  
Schachter and Singer's two factor theory and, 407f, 408–409  
schizophrenia and, 477–488  
theory evaluation and, 410  
Emotional arousal, memory and, 240–241, 241f  
Emotional intelligence (EI), 278–279, 279f  
Empathy, 499, 515t, 525  
Empathy-altruism hypothesis, 556  
Empathy and mental health, 525  
Empathy induction, 8, 543  
Empathy technique in therapy, 499  
Empirical evidence, 4  
Empty-nest syndrome, 342, 342f  
Encoding  
encoding failure theory, 235  
encoding-specificity principle, 231  
memory improvement and, 248–249  
storage, and retrieval (ESR) model, 222–223, 223f  
Endocrine system, hormones and, 52–53, 53f  
Endorphins, 52t, 121  
Entrepreneurship, 448, 448f  
Environmental enrichment, brain and, 212, 212f  
Environmental factors  
intelligence and, 279–280, 280f  
IQ scores and, 281  
schizophrenia and, 479  
Environmental psychologist, 12t  
Epigenetic effect, prenatal development and, 297  
Epigenetics, 296–297  
Epinephrine, 52t



- Episodic memory, 229  
 Erectile dysfunction, 368, 369t  
 Erikson, Erik, 329–331, 330f  
 Ethical issues, 17–19  
   human participants and, 18  
   nonhuman animals and, 18  
   psychology students and, 19  
   psychotherapy clients and, 18–19  
 Ethnic differences, IQ scores and, 280–281  
 Ethnocentrism, 28, 355, 487, 487f  
 Ethnotheories, cultural, 294  
 Eustress vs. distress, 92  
 Evidence-based practice in psychology (EBPP), 519, 519f  
 Evolution, universal facial expressions and, 412f, 413  
 Evolutionary perspective, 7t, 8  
 Evolutionary theory of helping, 556  
 Excitement phase, sexual response cycle and, 365, 365f  
 Executive functions (EFs), 69  
 Exercise, stress management and, 105  
 Exhibitionistic behavior, 368  
 Exhibitionistic disorder, 368  
 Experiment, 26–31, 27f  
 Experimental groups, 26  
 Experimental psychologist, 12t  
 Experimental research, 20t, 26–27  
 Experimenter bias, 28  
 Explanation, as psychological goal, 17  
 Explicit/declarative memory, 228–229, 243  
 Exposure therapies, 506  
 External locus of control, 102  
 Extinction  
   classical conditioning and, 192  
   operant conditioning and, 201  
 Extrasensory perception (ESP), 145–146  
 Extraversion, 431–432  
 Extraversion-introversion, 431  
 Extrinsic motivation, 401–402, 402f  
 Eyewitness testimony, memory distortions and, 245, 245f, 246f
- F**  
 Facial-feedback hypothesis, 409–410, 409f  
 Factor analysis, 431  
 False daughter memories, 247  
 False memories, 246–247, 247f  
 Family therapy, 520, 520f  
 Farsightedness (hyperopia), 124  
 Father's role, parenting styles and, 318  
 Fear, fast and slow pathways and, 404, 404f  
 Feature detectors, 137, 137f  
 Fechner, Gustav, 119  
 Feeding and eating disorders, 463t  
 Feeling in-between, emerging/young adulthood and, 303  
 Feelings expression, 524  
 Female orgasmic disorder, 369t  
 Female sexual interest/arousal disorder, 369t  
 Fetal alcohol spectrum disorders (FASD), 298  
 Fetal alcohol syndrome (FAS), 298, 298f  
 Fetal period, prenatal development and, 297, 298f  
 Fetishistic disorder, 367  
 Fight-flight-freeze response, 60, 89  
 Fight or flight response, 60, 89  
 Five-factor model (FFM), 431–432, 431f, 433–434, 434t  
 Fixed interval (FI) schedule, reinforcement and, 202, 202t  
 Fixed ratio (FR) schedule, reinforcement and, 202, 202t
- Flashbulb events, 91  
 Flashbulb memories (FBMs), 240–241, 240f, 241f  
 Flashing, 368  
 Flexibility, creative thinking and, 263t  
 Fluency, creative thinking and, 263t  
 Fluid intelligence (*gf*), 273  
 Flynn effect, 281  
 Foot-in-the-door technique, 549  
 Forebrain, 65–67, 66f  
 Forensic psychologist, 12t  
 Forgetting, 233–238  
   cultural factors and, 236–237, 237f  
   decay theory and, 234  
   Ebbinghaus's forgetting curve, 233, 233f  
   encoding failure theory and, 235  
   factors involved in, 235–236  
   inference theory and, 234, 234f  
   misinformation effect and, 235–236  
   motivated forgetting theory and, 234–235  
   retrieval failure theory and, 235  
   serial-position effect and, 236, 236f  
   source amnesia and, 236, 236f  
   spacing of practice and, 236  
   theories of, 233–235, 234f  
   tip-of-the-tongue (TOT) phenomenon and, 235  
 Form perception, 138–140, 138f  
 Gestalt principles of organization and, 139, 139f  
   reversible figures, 139, 139f  
 Formal operational stage, cognitive development and, 310–311  
 Fovea, 126  
 Fragile-X syndrome, 275  
 Free association, 497, 498f  
 Frequency theory for hearing, 128  
 Freud, Sigmund, 6, 101, 163, 497, 497f  
 Freudian slips, 424, 424f  
 Freud's psychoanalytic theory  
   defense mechanisms and, 425, 425f  
   levels of consciousness and, 424, 424f  
   modern western culture and, 427  
   personality structure and, 425, 425f  
   psychosexual stages and, 426–427, 426f  
 Friendship behavior, gender differences and, 362t
- Frontal lobes  
   changes, teenagers and, 302, 302f  
   executive functions and, 69  
   memory and, 239, 239f  
   speech production and, 69–70  
   voluntary motor control and, 70  
 Frustrations, stress and, 85  
 Functional fixedness, 260, 260f  
 Functional magnetic resonance imaging (fMRI), 62t, 415  
 Functionalism, 5  
 Fundamental attribution error (FAE), 534
- G**  
 GABA (gamma-aminobutyric acid), 52t  
 Gambling, 202, 229f  
 Gardner, Howard, 277, 277t  
 Gardner's multiple intelligences, 277, 277t  
 Gate-control theory of pain, 121–122  
 Gay barrier, 543, 543f  
 Gene, prenatal development and, 295–296, 297f  
 Gender. *See also* Sexual identity  
   brain differences and, 63, 63f  
   communication differences and, 379–380, 379t  
   dreams and, 164  
   gender roles, 356  
   income inequality, 357–358, 358t  
   moral development and, 327–328, 327f  
   psychological disorders and, 484–486  
   sexually transmitted infections and, 374–375, 375f  
   stereotypes and, 356–358  
   therapy and, 523–524  
   workplace discrimination and, 485  
 Gender and/or cultural psychologist, 12t  
 Gender and cultural diversity, 9, 63, 87, 108, 140, 164, 237, 270, 327, 354, 411, 484, 523, 546  
 Gender dysphoria, 463t  
 Gender identity, 356, 359–361, 360f  
 Gender-role development, 362–363, 363f  
 General adaptation syndrome (GAS), 88–89, 88f  
 General intelligence (*g*), 273  
 Generalization  
   classical conditioning and, 192  
   operant conditioning and, 201  
 Generalized anxiety disorder (GAD), 467–468, 468f  
 Generativity vs. stagnation, 330f  
 Genetics  
   depressive and bipolar disorders and, 473  
   genetic determinism, 443  
   intelligence and, 279–280, 280f  
   IQ scores and, 280, 281f  
   personality and, 442–443, 443f  
   prenatal development and, 296–297, 297f  
   schizophrenia and, 478, 478f  
 Genital retraction syndrome, 462  
 Genital stage, psychosexual, 427  
 Genuineness, 500  
 Germ obsessions, 481  
 Germinal period, prenatal development and, 297, 298f  
 Gestalt principles of organization, 139, 139f  
 Gestalt psychologists, 139  
 Gigantism, 52  
 Gilligan, Carol, 327–328, 327f  
 Glial cells, 46  
 Goals, happiness and, 416–417  
 Goleman, Daniel, 278–279, 279f  
 Goleman's emotional intelligence, 278–279, 279f  
 Goodall, Jane, 21  
 Gottman, John, 381  
 Grade improvement, 36–37  
   class attendance and, 36  
   maximizing each session, 36  
   practice distribution and, 36–37  
   study skills courses and, 36  
   test taking practice and, 37  
   test taking skills, 36  
 Grammar, 267, 267f  
 Graphs, reading of, A-4–A-5, A-4t  
 Grasping reflex, 58f  
 Gratitude expression, happiness and, 415–416  
 Gray matter, 65, 280  
 Grief, 342–343, 343f, 345  
 Grit, 2, 45, 82, 116, 152, 185, 221, 257, 289, 324, 352, 388, 422, 457, 495, 532  
 Group processes, 550–553  
   decision making, 552–553  
   group and individual performance, 551  
   group membership, 550–551  
   group performance, 551  
   group polarization, 552, 552f  
 Group therapies, 519–520  
 Groupthink, 552–553, 553f  
 Group polarization, 552, 552f, 553  
 Growth/development theory of sleep, 162–163  
 Growth mindset, 2, 38, 45, 82, 116, 152, 185, 221, 257, 289, 324, 352, 388, 422, 457, 495, 532

## SI-6 Subject Index

Growth spurts, adolescent development and, 301, 302f  
Group therapies, 519–520, 520f  
Gustation. *See* Taste

## H

Habituation, 137–138  
Hallucinations  
  psychoactive drugs and, 170  
  psychological disorders and, 461, 461f  
  schizophrenia and, 477  
Hallucinogens, 171t, 174–175  
Happiness psychology, 415–417  
Harlow, Harry, 314, 314f  
Hassles, stress and, 84–85  
Hatha yoga, 177, 177f  
Hayflick, Leonard, 304  
Hayflick limit, 304  
Hazards, prenatal development and, 297–299, 299t  
Head injuries, depressive and bipolar disorders and, 474, 474f  
Health living resources, 103  
Health psychology, 12t, 106–110  
  job stress, 108–109  
  nature of, 106–107  
  technostress, 109  
Hearing (audition)  
  aging and, 129, 129f  
  cochlea and, 128  
  conduction hearing loss, 129  
  frequency theory for, 128  
  inner ear and, 128  
  middle ear and, 128  
  outer ear and, 128  
  pitch perception and, 127–129  
  place theory for, 127  
  problems with, 129  
  process of, 128, 128f  
  sensation and perception and, 118t  
  sensorineural hearing loss, 129  
  softness vs. loudness, 129, 129f  
  step-by-step process of, 124  
  volley principle for, 128  
Heart disease, 96–97  
Hedonic treadmill, 417  
Helping. *See* Altruism  
Heuristics, problem solving and, 260  
Hierarchies, learning concepts and, 259  
Hierarchy creation, memory and, 249  
Hierarchy of needs, 393, 393f, 437, 437f  
High-fat diet, 70, 70f  
Higher cognitive processes, frontal lobes and, 69  
Higher-order conditioning, 192, 193f  
Highlighting, student success and, 34  
Hindbrain, 64–65  
Hippocampus  
  chronic stress and, 91, 91f  
  memory and, 239, 239f  
  role of, 65, 66f  
Historical heterogeneity, 270  
HIV positive, 374  
Holland, John, 448  
Homeostasis, drive reduction and, 390  
Homophobia, 366  
Hooking up relationships, 371  
Horizontal-vertical illusion, 136f  
Hormones, endocrine system and, 52–53, 53f  
Horney, Karen, 428–429  
How to read a graph, A-4–A-5, A-4t  
Hubris penalty, 144  
Human immunodeficiency virus (HIV), 374  
Human sexuality  
  cross-cultural differences and, 354–355, 355f  
  early studies and, 353–354, 354f  
  modern life and, 376–383  
  modern research and, 354  
  sex problems and, 367–375  
  sexual behavior, 364–366  
  sexual identity and, 356–363  
  sexual victimization, 376–378  
Humanistic perspective, 6–7, 7t  
Humanistic theories of personality, 435–438  
  evaluation of, 437–438  
  hierarchy of needs and, 437, 437f  
  Maslow's theory and, 437  
  Rogers and, 436–437  
  self-actualization and, 437  
  self-concept and, 436–437, 436f  
  unconditional positive regard, 436, 437f  
Human sexuality  
  cross-cultural studies and, 354–355  
  early studies of, 353–354, 354f  
  modern research and, 354–355  
  sex and gender differences and, 361–362, 361f, 362t  
Humanistic therapies, 499–500  
  active listening and, 500  
  Carl Rogers and, 499, 499f  
  client-centered therapy and, 499, 499f  
  empathy and, 499  
  genuineness and, 500  
  major therapy techniques and, 499  
  unconditional positive regard and, 499–500, 500f  
Hunger and eating, 394–399  
  biochemistry and, 395  
  biological factors and, 394–395  
  the brain and, 395, 395f  
  Cannon and Washburn's experiment, 394, 395f  
  eating problems and disorders, 396–399  
  psychosocial factors and, 396, 396f  
  the stomach and, 394–395, 395f  
Hypnagogic hallucinations, 161  
Hypnosis, 178–179, 178t  
Hypothalamic-pituitary-adrenocortical (HPA) axis, 89, 90f  
Hypothalamus, 67, 395, 395f  
Hypothesis, 14

## I

Id, 425  
Identity exploration, emerging/young adulthood and, 303  
Identity vs. role confusion, 330f  
Ideology adherence, obedience and, 549  
Illegal drugs, sexual effects of, 372, 372t  
Illness, stress and, 94–98  
Illusions, 461, 461f  
Illusory correlation, 24, 25f  
Imaginary audiences, 310–311  
Immune system, stress and, 89, 90f  
Implicit biases, prejudice and, 541  
Implicit/nondeclarative memory, 229  
Impression management, addiction effects on, 170  
Imprinting, 290, 291f  
Impulse control, frontal lobes and, 69  
Inappropriate modeling, punishment and, 200t  
Inappropriate rewards, punishment and, 200t  
Inattention blindness, 154  
Incentive theory, motivation and, 392  
Income inequality, gender and, 357–358, 358t  
Indecent exposure, 368  
Independent variable (IV), 26  
Individual performance, 551  
Individual psychology, 428  
Individualism, 392  
Individualistic cultures, 9, 10t  
Industrial/organizational psychologist, 12t  
Industry vs. inferiority, 330f  
Infantile amnesia, 229  
Infants. *See also* Early childhood development  
  attachment and, 315, 316f  
  crying of, 269, 269t  
  imitation by, 213, 213f  
  scientific research with, 301  
  visual preferences, 301, 301f  
Inference theory, forgetting and, 234, 234f  
Inferential statistics, A-5, A-8–A-9, A-10t  
Inferiority complex, 428, 428f  
Information crossover, brain and, 69, 69f  
Informational social influence, conformity and, 547  
Informed consent, 18  
Ingroup favoritism, 540  
Initiative vs. guilt, 330f  
Inner ear, 128  
Insanity, 461, 462f  
Insight learning, 207  
Insomnia, 165–166, 165t  
Instability, emerging/young adulthood and, 303  
Instinct, 389, 389t  
Instinct theory, motivation and, 389–390, 390f  
Instinctive drift, 214  
Institutionalization, 522–523  
Intellectual disability, 275, 275t  
Intellectualization, 102t  
Intelligence, 272–283. *See also* IQ scores  
  biological factors and, 283  
  brain's influence on, 279, 279f  
  controversies regarding, 276–283  
  crystallized intelligence, 273  
  extremes in, 275–276  
  fluid intelligence, 273  
  general intelligence, 273  
  genetic and environmental influences on, 279–280, 280f  
  group differences and IQ scores, 280–281  
  intellectual disability, 275, 275t  
  intelligence quotient (IQ) and, 274  
  measuring intelligence, 273–275  
  mental age and, 274  
  mental giftedness and, 276  
  multiple intelligences, 277–278  
  nature, nurture and IQ, 279–280  
  nature of, 273  
  normal distribution (bell curve) and, 273–274, 274f  
  personality factors and, 282–283  
  social factors and, 283  
  test construction and, 274–275  
Intelligence tests  
  construction of, 274–275  
  reliability and, 274  
  standardization and, 274  
  validity and, 275  
Interdependence, 523, 523f  
Intergroup contact, reducing prejudice and, 542  
Internal locus of control, 102, 489  
Interpersonal attraction, 558–563  
  long-distance relationships and, 561  
  love over the lifespan, 564  
  loving others and, 562–563  
  physical attractiveness and, 559, 559f

proximity and, 560–561  
 similarity and, 561–562  
 Interpersonal relationships, addiction effects on, 170  
 Interpersonal therapy, 498, 498f  
 Interposition, 141  
 Interpretation, 143–146  
   perceptual sets and, 144, 144f  
   psychoanalytic therapy and, 498  
   science and ESP, 145–146  
 Interviews, 21, 445  
 Intimacy, 562  
 Intimacy vs. isolation, 330f  
 Intrinsic motivation, 401–402, 401f  
 Introversion, 431–432  
 Involuntary commitment, 522  
 IQ scores, 280–281  
   cultural bias and, 281  
   cultural factors and, 281  
   environmental factors and, 281  
   Flynn effect and, 281  
   genetics vs. environment and, 280, 281f  
   racial and ethnic differences and, 280–281  
   stereotype threat and, 281–282, 282f  
 Irrational misconceptions, 502

**J**

James, William, 5, 6f, 153  
 James-Lange theory, 407–408, 407f  
 Jet lag, 158  
 Job stress, 108–109  
 John/Joan case study, 359–360, 360f  
 Johnson, Virginia, 354, 364, 365f, 372–373  
 Jung, Carl, 428  
 Junk food, depression and, 473, 473f

**K**

Kangaroo care, 134, 135f  
 Karoshi, 108  
 Keller, Helen, 124  
 Ketamine (Special K), 175–176, 511–512  
 Kinesthesia, 134f, 135  
 Kinsey, Alfred, 354  
 Kitty Genovese case, 556–557  
 Koelling, Robert, 214  
 Kohlberg, Lawrence, 326–328, 327f  
 Köhler, Wolfgang, 207  
 Koko experiment, sign language and, 271, 271f  
 Kübler-Ross, Elisabeth, 344–345

**L**

Laboratory observation, 21, 21f  
 Language, 266–272  
   brain and, 267, 268f  
   development and, 268–270, 269t  
   developmental theories on, 270  
   distortions and, 268, 268f  
   linguistic stage and, 270  
   major building blocks of, 267, 267f  
   nonverbal language, 270–271  
   other species and, 271–272, 271f  
   prelinguistic stage and, 268–269, 268f  
   schizophrenia and, 477  
   theories and, 267–268  
 Language acquisition device (LAD), 270  
 Late adulthood  
   brain in, 304  
   physical development and, 303–304  
 Latency period, psychosexual, 427  
 Latent content, dreams and, 163  
 Latent learning, 207  
 Lateralization, 74–75  
 Law of Effect, 195, 196f  
 Learned helplessness theory, 474–475

Learned prejudice, 540  
 Learning  
   biological primes and, 213–214  
   biology of, 211–214  
   classical conditioning and, 186–194  
   cognitive-social learning, 206–210  
   mirror neurons and, 212–213, 213f  
   neuroscience and, 212–213, 212f  
   observational learning, 208  
   operant conditioning and, 194–204  
 Learning environment, 250, 250f  
 Learning/memory theory of sleep, 163  
 Legal drugs, sexual effects of, 372, 372t  
 Lesbian, 352, 354, 356f, 361, 366  
 Levels of consciousness, 424, 424f  
 Levels of processing model, 223–224  
 Lie detection, 414–415, 414f  
 Life changes, stress and, 84–85  
 Life span development  
   adulthood challenges and, 335–341  
   cognitive development, 306–313  
   critical periods and, 290–291  
   cross-sectional design and, 292–293, 292f  
   cultural influences on, 294, 294f  
   deprivation and, 291  
   development myths, 342  
   longitudinal design and, 292–293, 292f  
   moral development, 325–328  
   nature or nurture and, 290–291  
   neurodevelopmental disorders, 331–334  
   personality development, 328–331  
   physical development, 295–305  
   research approaches and, 292–293  
   social-emotional development, 314–319  
   stability or change and, 291  
   stages or continuity and, 290t, 291, 292f  
   theoretical issues and, 290–292  
 Light adaptation, 126  
 Light and shadow, 141  
 Light exposure, insomnia and, 166  
 Light waves, 123, 123f, 124f  
 Limbic system, 65, 66f, 404, 404f  
 Limited resources, prejudice and, 540  
 Limits of correlation, 23–24  
 Linear perspective, 141  
 Linguistic relativity hypothesis, 267  
 Linguistic stage, language and, 270  
 Little Albert study, 189–190, 189f  
 Lobes. *See* Brain lobes  
 Lobotomies, 514  
 Locus of control, 102, 440, 440f  
 Loftus, Elizabeth, 221  
 Long-distance relationships, 561  
 Long-term memory (LTM), 228–232, 228f  
   encoding-specificity principle and, 231  
   episodic memory, 229  
   explicit/declarative memory, 228–229  
   implicit/nondeclarative memory, 229  
   improvement of, 229–231  
   mnemonic devices and, 231–232, 232f  
   organization and, 229–230  
   rehearsal and, 230  
   retrieval tips and, 230–231  
 Long-term potentiation (LTP), 238–239  
 Longitudinal design, life span development and, 292–293, 292f  
 Lou Gehrig's disease, 56, 56f  
 Love, enduring, 336–338  
 Love maps, 336  
 Loving others, 562–563  
 Loyalty, relationship conflicts and, 380  
 LSD, 174–175  
 Luminosity, 236

Luria, A. R., 140  
 Luria's stimuli, 140, 140f  
 Lying, 66–67, 200t

**M**

Magnetic resonance imaging (MRI), 62t  
 Maintenance rehearsal, memory and, 227  
 Major depressive disorder (MDD), 472  
 Maladaptive learning, anxiety disorders and, 470  
 Male climacteric, 303  
 Male hypoactive sexual desire disorder, 369t  
 Malnutrition, 280  
 Mania, 472  
 Manifest content, dreams and, 163, 497  
 Marijuana, 175  
 Marital therapy, 520  
 Maslow, Abraham, 6, 393, 393f, 437  
 Maslow's hierarchy of needs, 393, 393f  
 Massed practice, 236  
 Masters, William, 354, 364, 365f, 372–373  
 Masters and Johnson  
   sex therapy program, 372–373  
   sexual response cycle and, 364, 365f  
 Material resources, stress management and, 105  
 Mean, A-5, A-6t  
 Means-end analysis, 263t  
 Media influences  
   body size preferences and, 210, 210f  
   cognitive-social learning and, 209  
 Media portrayal, mental illness and, 460, 464  
 Median, A-5, A-6  
 Medication-induced movement disorders, 463t  
 Medicine, classical conditioning and, 190, 190f  
 Meditation, 177, 177f  
 Medulla, 65  
 Melatonin, 157, 157f, 166  
 Melzack, Ronald, 121  
 Memory. *See also* Long-term memory;  
   Short-term memory  
   Alzheimer's disease and, 243, 243f  
   amnesia and, 242–243, 242f  
   biological bases of, 238–243  
   brain's role in, 239–240, 239f  
   cultural factors and, 236–237, 237f  
   echoic memory, 226, 226f  
   emotional arousal and, 240–241, 241f  
   false memories, 246–247, 247f  
   flashbulb memories, 240–241, 240f, 241f  
   forgetting and, 233–238  
   iconic memory, 226, 226f  
   improvement tips, 249–250  
   long-term memory, 228–232, 228f  
   memory wars, 248  
   models, 222–232  
   nature of, 221–232  
   personal memory test, 222  
   personal success and, 248–250  
   photos and impairment of, 224  
   priming and, 229  
   repressed memories, 247–248  
   sensory memory, 226, 226f  
   short-term memory, 226–227  
   synaptic and neurotransmitter changes and, 238–239  
   traumatic brain injury and, 241–242  
   working memory, 227–228, 228f  
 Memory distortions, 244–250  
   eyewitness testimony and, 245, 245f, 246f  
   false vs. repressed memories, 245–248  
   understanding of, 244–245  
 Memory models, 222–232  
   comparison of, 222, 223f

Memory models (*continued*)  
 encoding, storage, and retrieval model, 222–223, 223f  
 levels of processing model, 223–224  
 parallel distributed processing model, 224–225  
 three-stage memory model, 225–231, 225f  
 Menarche, 301  
 Menopause, 303  
 Mental age (MA), 274  
 Mental giftedness, 276  
 Mental health keys, 524–525  
 Mental illness myths, 459, 460t  
 Mental illness stigma, 464  
 Mental illness subcategories, 463t  
 Mental images, manipulating, 258–259  
 Mental sets, 260, 260f  
 Mental shortcuts, prejudice and, 540–541  
 Mental speed, aging and, 304  
 Mescaline, 174  
 Meta-analysis, 16  
 Metacognitive therapy (MCT), 504  
 Methamphetamine (ice, crystal meth), 175–176  
 Method of loci, 232  
 Midbrain, 65  
 Middle adulthood, physical development and, 303  
 Middle ear, 128  
 Midlife crises, 342  
 Milgram, Stanley, 547–548, 548f  
 Millan, Cesar, 185, 185f  
 Millan's dogs, 185, 185f, 189  
 Mindfulness-based cognitive therapy (MBCT), 503, 503f  
 Mindfulness-based meditation, chronic pain and, 95–96  
 Mindfulness-based stress reduction (MBSR), 103–104  
 Minnesota Multiphasic Personality Inventory (MMPI), 445–446  
 Mirror neurons, learning and, 212–213, 213f  
 Mirror visual therapy, 122, 122f  
 Misattribution of arousal, 409  
 Mischel, Walter, 440  
 Misinformation effect  
   false memories and, 246  
   forgetting and, 235–236  
 MMDA (ecstasy), 175–176  
 Mnemonic devices, memory and, 231–232, 232f  
 Mode, A-5, A-6  
 Modeling therapy, 508  
 Monocular cues, 141  
 Mood congruence, 231  
 Mood-stabilizer drugs, 511t  
 Moral development, 325–328  
   conventional morality, 325  
   cultural differences and, 327–328, 327f  
   gender differences and, 327–328, 327f  
   Kohlberg's research and, 325–327, 326f  
   postconventional morality, 325  
   preconventional morality, 325  
 Moral stories, 325  
 Morphemes, 267, 267f  
 Morphine, 174  
 Motion parallax, 141  
 Motivation  
   achievement motivation, 399–400  
   biological theories and, 389–392  
   biopsychosocial theories and, 393, 393f  
   cognitive theories and, 392  
   drive-reduction theory and, 390–391, 390f  
   expectancies and, 392, 392f  
   extrinsic vs. intrinsic motivation, 401–402  
   hierarchy of needs and, 393, 393f  
   hunger and eating and, 394–399

incentive theory and, 392  
 instinct theory and, 389–390, 390f  
 observational learning and, 209, 209f  
 optimal arousal theory and, 391–392, 391f  
 professional success and, 402  
 psychological theories and, 392, 392f  
 theories of, 389–393, 389t  
 Yerkes-Dodson law and, 391–392, 392f  
 Motor cortex, 70  
 Motor development, early childhood and, 299–300, 299f  
 Motor neurons, 48  
 Müller-Lyer illusion, 136f  
 Multiple intelligences, 277–278  
   Gardner's multiple intelligences, 277, 277t  
   Goleman's emotional intelligence, 278–279, 279f  
   Sternberg's triarchic theory and, 277–278, 278t  
 Multiple personality disorder, 476–477  
 Multiple sclerosis, 47  
 Multitasking, during studying, 248  
 Myelin sheath, 47, 47f  
 Myoclonic jerks, 161

## N

Narcissism, adolescent, 310, 310f  
 Narcolepsy, 165t, 166, 166f  
 National Child Abuse hotline, 377  
 Natural disasters, 85–86  
 Natural selection, 8  
 Naturalistic observation, 21, 21f  
 Nature or nurture, life span development and, 290–291  
 Nearsightedness (myopia), 124  
 Negative correlation, 23, 23f, A-8, A-8f  
 Negative political advertisements, 236, 236f  
 Negative punishment, 198, 199t  
 Negative reinforcement, 196–197  
 Negative schizophrenia symptoms, 478  
 Negative self-talk, 501  
 Neglect, 280, 280f, 380  
 Neglected right brain myth, 74  
 Neo-Freudians and psychodynamic theory, 427–429  
   Alfred Adler, 428  
   Carl Jung, 428  
   Karen Horney, 428–429  
 NEO Personality Inventory, 446  
 Nervous system organization, 54–61, 55f  
   central nervous system, 56–58  
   peripheral nervous system, 59–60  
 Neurochemistry, personality and, 442  
 Neurocognitive disorders, 463t  
 Neurodevelopmental disorders, 331–334, 463t  
   attention-deficit/hyperactivity disorder, 332–333  
   autism spectrum disorder, 333–334, 334f  
 Neurogenesis, 56–57  
 Neurons  
   basic features of, 46–47, 47f  
   communication between, 49–52, 50f  
   communication within, 48–49, 49f  
   glial cells and, 46  
   neurotransmitters and, 49, 51–52, 52t  
 Neuroplasticity, 56, 57f  
 Neuroregeneration, 57  
 Neuroscience, 212–213, 212f  
 Neurosis, 461  
 Neuroticism, 431  
 Neurotransmitters  
   cocaine effects on, 173, 173f  
   communication between neurons and, 49, 51–52, 52t  
   memory and, 238–239

Neutral stimulus (NS), 187, 204t  
 Nicotine addiction, 107, 107f  
 Nightmares, 165t, 167, 167f  
 Nine-dot problem, 260, 260f  
 Nocturnal emissions, 353–354  
 Non-rapid-eye movement (NREM) sleep, 160–161  
 Nonhuman animals  
   ethical issues and, 18  
   language and, 271–272, 271f  
   unique personalities and, 423  
   Nonsuicidal self-injury (NSSI), 465  
 Nonverbal cues, 406  
 Nonverbal language, 270–271  
 Noradrenaline, 52t  
 Norepinephrine, 52t  
 Normal distribution  
   intelligence and, 273–274, 274f  
   statistics and, A-7–A-8, A-7f  
 Normative social influence, conformity and, 546  
 Norms, test, 274  
 Note taking, 34  
 Nurturists, language development and, 270

## O

Obama effect, 282, 282f  
 Obedience, 547–550  
   factors affecting, 549, 549f  
   foot-in-door technique and, 549  
   ideology adherence and, 549  
   Milgrom's study on, 547–548, 548f  
   relaxed moral guard and, 350  
   socialization and, 549  
 Obesity, 396–398, 397f  
   controlling weight and, 397  
   fattening environment and, 397, 397f  
   genetics and, 397, 397f  
   measurements and, 397  
   metabolism and, 398  
 Object permanence, 308, 308f  
 Objective tests  
   cultural bias and, 447  
   diagnostic difficulties and, 447  
   personality assessment and, 445–446  
   problems with self-reports, 447  
 Observation, personality assessment and, 445, 445f  
 Observational learning, 208–209, 209f  
 Observational learning techniques, 508, 508f  
 Obsessive-compulsive disorder (OCD), 463t, 480–481  
 Occipital lobes, 73  
 Oedipus complex, 427  
 Olfaction. *See* Smell  
 Online dating, 563  
 Operant conditioning, 194–204  
   beginnings of, 195–200  
   biological primes and, 214  
   vs. classical conditioning, 195, 195f  
   in everyday life, 204, 204f  
   Law of Effect and, 195, 196f  
   phobias and, 470, 470f  
   principles of, 201  
   reinforcement and punishment, 196–200  
   schedules of reinforcement, 201–203  
 Operant conditioning techniques, 507–508  
   behavior modification and, 507  
   excessive shyness and, 507  
   shaping and, 507  
   token economy and, 507–508, 508f  
 Operational definition, 14–15  
 Opiates, 171t, 173–174, 174f  
 Opioids, 171t, 173–174, 174f  
 Opponent-process theory of color, 126



- Optimal arousal theory, motivation and, 391–392, 391f
- Optimism  
adult resilience and, 489  
emerging/young adulthood and, 303  
stress management and, 103
- Oral fixation, 429, 429f
- Oral gratification, 427
- Oral stage, psychosexual, 427
- Organization, 138–142  
constancies perception, 141–142, 142f  
depth perception and, 140–141  
form perception, 138–140, 138f  
long-term memory and, 229–230
- Orgasm phase, sexual response cycle and, 365, 365f
- Organic dysfunction, 368
- Originality, creative thinking and, 263t
- Outer ear, 128
- Outgroup homogeneity effect, 540
- Outlining organization, 232
- Outpatient support, 522–523, 522f
- Overgeneralization, 504
- Overlearning, 34–35, 250
- Oxycodone, 174
- Oxytocin, 53, 89
- P**
- Pain  
gate-control theory of, 121–122  
sensory adaptation and, 121–122, 121f
- Pair bonding, 364
- Panic disorder, 468
- Paradoxical sleep, 161
- Parallel distributed processing (PDP) model, 224–225
- Paraphilic disorders, 367–368, 463t  
exhibitionistic disorder, 368  
explaining and treating, 368  
fetishistic disorder, 367
- Parapsychology, 145
- Parasympathetic changes, meditation and, 177, 177f
- Parasympathetic dominance, 60, 60f
- Parasympathetic nervous system, 60
- Parent expectations, parenting styles and, 318
- Parenting styles, 317–318, 318t
- Parietal lobe changes, teenagers and, 302, 302f
- Parietal lobes, 73
- Parkinson's disease, 51
- Partial (intermittent) reinforcement, 202, 203t
- Participant bias, 29
- Participant issues, 29
- Passion, 283, 562
- Passive aggressiveness, punishment and, 200t
- Passive behavior, conflicts and, 382
- Pastoral counselors, 521t
- Pavlov, Ivan, 6, 187–189, 187f, 192
- Pavlov's experiments, 187–189, 187f, 192
- Penis envy, 428
- Perception, 135–146  
interpretation and, 143–146  
normal process of, 136, 136f  
organization and, 138–142  
perceptual constancies, 141–142, 142f  
perceptual development, 301  
perceptual sets, 144, 144f  
perceptual speed, 63t  
schizophrenia and, 477  
selection and, 136–138  
vs. sensation, 117–118, 117f, 118t
- Performance anxiety, 370
- Peripheral nervous system (PNS), 55, 59–60
- Permissive-indulgent parenting style, 318t
- Permissive-neglectful parenting style, 318t
- Perseverance, 283
- Personal fables, 310
- Personal space, 546
- Personal success, 434–435
- Personal unconscious, 428
- Personality  
assessment of, 444–449  
biological theories and, 442–443  
biopsychosocial approach and, 443, 443f  
career matching and, 448, 448t  
definition of, 424  
disorders and,  
gender differences and, 362t  
humanistic theories and, 435–438  
intelligence and, 282–283  
nonhuman animals and, 432  
personal success and, 434–435  
personality job-fit theory, 448, 448t  
psychoanalytic/psychodynamic theories and, 423–429  
psychoanalytic theory and, 425, 425f  
social-cognitive theories and, 438–441  
trait theories and, 430–435
- Personality assessment, 444–449  
evaluation of, 447–449  
interviews and observation, 445  
objective tests, 445–446, 447–448  
projective tests, 446, 446f, 449  
unscientific methods and, 444–445, 445f
- Personality development, 328–331  
Erikson's psychosocial theory and, 329–331, 330f  
Thomas and Chess's temperament theory, 329
- Personality disorders, 458, 460, 463t, 482–483
- Personality psychologist, 12t
- Personalization, 504
- Phallic stage, psychosexual, 427
- Phantom limb pain, 122, 122f
- Phenylketonuria (PKU), 275
- Pheromones, 132
- Phobias, 468–469, 470, 470f
- Phonemes, 267, 267f
- Phonological loop, working memory and, 227
- Photos, memory impairment and, 224
- Phyneas Gage case, 71, 71f
- Physical attractiveness, 559, 559f
- Physical dependence, psychoactive drugs and, 168
- Physical development, 295–305  
adolescence and, 301–302  
adulthood and, 303–305  
early childhood development, 299–301  
prenatal, 295–299
- Physical differences, gender and, 361–362, 361f
- Piaget, Jean, 306
- Piaget's four stages of cognitive development, 307–311, 307f
- Pitch perception, 127–129  
frequency theory and, 128  
place theory and, 127  
volley principle and, 128
- Place theory for hearing, 127
- Placebo, 30  
effect, 30, 30f  
pills, 30, 30f
- Plateau phase, sexual response cycle and, 365, 365f
- Pleasure principle, 425
- Poisons, 51, 51f
- Police lineups, eyewitnesses and, 246f
- Political affiliation, sexual behavior and, 352
- Political bubble, 553
- Polygraphs, 414–415, 414f
- Pons, 65
- Ponzo illusion, 136f
- Positive affect, 102–103, 103f
- Positive correlation, 23, 23f, A-8, A-8f
- Positive psychologist, 12t
- Positive psychology, 7–8
- Positive punishment, 198, 199t,
- Positive reinforcement, 196
- Positive schizophrenia symptoms, 478
- Positivity, 340–341
- Positron emission tomography (PET), 62t, 267
- Post-synaptic neurons, 51
- Postconventional morality, 325, 326f
- Postpartum depression, 461
- Posttraumatic growth, 489
- Posttraumatic stress disorder (PTSD), 86, 97–98, 97t, 98f
- Poverty, academic success and, 92
- Practice distribution, 249
- Practice testing, 34, 93, 249
- Pre-synaptic neurons, 51
- Precision manual tasks, gender differences and, 63t
- Precognition, 145
- Preconscious, 424
- Preconventional morality, 325, 326f
- Prediction, correlational research and, 25
- Prefrontal cortex, 91, 91f, 533, 534f
- Prejudice, 538–544  
career success and, 544  
chronic stress and, 84, 84f  
classical conditioning and, 190, 190f  
cognitive dissonance and, 542–543  
cognitive retraining and, 542  
cooperation with common goals and, 542  
discrimination and, 538, 538f  
displaced aggression and, 540  
empathy induction and, 543  
implicit biases and, 541  
intergroup contact and, 542  
learned prejudice, 540  
limited resources and, 540  
mental shortcuts and, 540–541  
operant conditioning and, 204, 204f  
price of, 541, 541f  
reduction of, 542–543, 542f  
sources of, 540–541, 540f  
stereotypes and, 538
- Prelinguistic stage, language and, 268–269, 268f
- Premature ejaculation, 369t
- Prenatal development, 295–299  
chromosomes and, 295  
DNA and, 295–296  
embryonic period, 297, 298f  
fetal period, 297, 298f  
genes and, 296–297, 297f  
germinal period, 297, 298f  
hazards to, 297–299, 299t  
teratogens and, 297–298, 298f  
three stages of, 297
- Prenatal influences, schizophrenia and, 479
- Preoperational stage, cognitive development and, 308–310
- Presbyopia, 124
- Primary aging, 304
- Primary appraisal, stress and, 101, 101f
- Primary punisher, 198, 199f
- Primary reinforcer, 196, 197f
- Priming, 120, 229
- Proactive interference, 234, 234f

- Problem-focused coping, 100
  - Problem solving, 259–263
    - availability heuristic and, 260–261, 260f
    - cognitive offloading and, 262
    - confirmation bias and, 262
    - functional fixedness and, 260, 260f
    - mental sets and, 260, 260f
    - potential barriers to, 260–262
    - representativeness heuristic and, 261
    - strategies for, 262, 263t
    - three steps to a goal, 260–261, 261f
  - Procedural motor skills, 229
  - Processing, sensory, 118–119, 118f
  - Professional sports, brain damage and, 242, 242f
  - Professional success, 205–206, 402
  - Projection, 102t
  - Projective tests, 445–446, 446f, 447, 449
  - Prosopagnosia, 137
  - Prototypes, learning concepts and, 259
  - Proximity, interpersonal attraction and, 560–561
  - Pseudo-personality quizzes, 449
  - Pseudopsychology, 5
  - Psilocybin, 174, 473
  - Psychedelic drugs, 171t, 174–175, 512–513
  - Psychiatric nurses, 521t
  - Psychiatric social workers, 522t
  - Psychiatrists, 521t
  - Psychiatry, foundations of, 460
  - Psychoactive drugs, 168–176
    - agonist drugs, 168, 169f
    - antagonist drugs, 168, 169f
    - club drugs, 175–176
    - depressants, 171–172, 171t
    - hallucinogens, 171t, 174–175
    - history of, 173, 173f
    - opiates/opioids, 171t, 173–174, 174f
    - physical dependence and, 168
    - psychological dependence and, 168
    - stimulants, 171t, 173
    - tolerance and, 169
    - understanding of, 168–170
    - withdrawal reactions and, 168
  - Psychoanalysis/psychodynamic therapies, 497–499
    - analysis of resistance and, 497–498
    - analysis of transference, 498
    - dream analysis and, 497
    - evaluation of, 498–499
    - free association and, 497, 498f
    - interpersonal therapy, 498, 498f
    - interpretation and, 498
    - limited applicability and, 499
    - major therapy techniques, 497–498, 497f
    - psychodynamic therapies, 498, 498f
    - repressed memories and, 498
    - scientific credibility and, 499
    - unconscious conflict and, 498
  - Psychoanalytic/psychodynamic theories, 423–429
    - evaluating psychoanalytic theories, 429
    - Freud's psychoanalytic theory, 424–427
    - Neo-Freudians and psychodynamic perspective, 427–429
  - Psychoanalytic theory. *See* Freud's psychoanalytic theory
  - Psychodynamic therapies, 498, 498f
  - Psychokinesis, 145
  - Psychological anthropologist, 12t
  - Psychological dependence, psychoactive drugs and, 168
  - Psychological disorders
    - abnormal behavior and, 459–460, 459f
    - antisocial personality disorder, 482–483
    - anxiety disorders, 467–471
      - avoiding ethnocentrism and, 487, 487f
    - borderline personality disorder, 483
    - classification of, 460–461
    - comorbidity and, 462
    - creativity and, 265–266
    - cultural bias and, 462
    - culture and, 486, 486f, 487t
    - culture-bound disorders, 488t
    - depressive and bipolar disorders, 472–475, 472f
    - Diagnostic and Statistical Manual of Mental Disorders* (DSM), 461–462, 463t
    - dissociative disorders, 481–482, 481f
    - gender differences and, 484–486
    - identifying and explaining, 458–460
    - insanity and, 461, 462f
    - mental illness myths and, 459, 460t
    - mental illness stigma and, 464
    - mental illness subcategories, 463t
    - obsessive-compulsive disorder, 480–481
    - resilience and, 488–489
    - schizophrenia, 476–479
    - seven psychological perspectives, 460, 461f
    - special issues and, 462–466
    - suicide risk and, 464–466
    - workplace discrimination and, 485
  - Psychological factors
    - anxiety disorders and, 469–470, 469f
    - depressive and bipolar disorders and, 474–475
    - motivation and, 392, 392f
    - sexual problems and, 370
  - Psychology
    - careers in, 11–12, 12t
    - classic success and, 116, 152, 324, 422
    - contemporary success and, 2, 45, 82, 185, 221, 257, 289, 352, 388, 457, 495, 532
    - critical thinking and, 4
    - definition of, 4
    - diversity and, 9
    - four main goals of, 17
    - history of, 5–6
    - modern, 6–11, 7t
    - personal success and, 37–38, 71, 103, 146, 155, 210, 248, 262, 315, 336, 380, 415, 434, 440, 488, 524, 535, 560
    - professional success and, 11, 109, 170, 205, 282, 305, 402, 448, 544
    - reasons to study, 3
    - research ethics and, 17–19
    - research methods and, 20–32
    - science of, 13–19
  - Psychology students, ethical issues and, 19
  - Psychology student syndrome (PSSS), 487
  - Psychoneuroimmunology, 898
  - Psychopharmacology, 510–513
    - evaluation of, 514
    - explaining drug therapy, 510–512
    - psychedelic drugs, 512–513
    - psychotherapeutic drug treatments, 511t
  - Psychophysics, 119–121
    - absolute threshold and, 119, 119t, 120f
    - difference threshold and, 119, 120f
    - subliminal stimuli and, 120–121
  - Psychosexual stages, psychoanalytic theory and, 426–427, 426f
  - Psychosis, 169–170, 461
  - Psychosocial factors
    - aggression and, 555
    - emotion and, 413–414
    - hunger and eating and, 396, 396f
  - Psychosocial stages, 329–331, 330f
  - Psychosocial theory, 329–331, 330f
  - Psychosurgery, 513–514
  - Psychotherapy, 516–525
    - choosing a therapist, 520
    - deinstitutionalization and, 522–523
    - eclectic approaches and, 517
    - ethical issues and, 18–19
    - evidence-based practice and, 519, 519f
    - five most common goals of, 517f
    - goals and effectiveness, 517–519, 517f
    - group therapies, 519–520
    - institutionalization, 522–523
    - involuntary commitment and, 522
    - marital and family therapies, 520, 520f
    - outpatient support and, 522–523, 522f
    - telehealth/electronic therapy, 521
    - therapeutic alliance and, 519
    - therapy formats, 519–521
  - Psychoticism, 431
  - Puberty, 301–302, 361–362
  - Punishment
    - brain areas and, 212–213, 212f
    - potential side effects of, 200t
    - primary punishment, 198
    - problems with, 198–200, 199f
    - process of, 195
    - professional success and, 205–206
    - secondary punishment, 198
    - side effects of, 200t
- Q**
- Quasi-experimental designs, 30
- R**
- Random assignment, 26, 30
  - Range, A-6
  - Rape, 172, 172f, 377–378
  - Rapid-eye movement (REM) sleep, 160–161
  - Rational-emotive behavior therapy (REBT), 501–502
  - Rationalization, 102t
  - Reaction formation, 102t
  - Reciprocal determinism, 439–440, 440f
  - Reference groups, conformity and, 547
  - Reflexes
    - early childhood, 299–300, 299f
    - spinal reflexes, 57–58, 58f
    - testing for, 58
  - Refractory period, sexual response cycle and, 365, 365f
  - Regression, 102t
  - Rehearsal, long-term memory and, 230
  - Reinforcement, 195, 196–198, 198f
    - brain areas and, 212–213, 212f
    - continuous reinforcement, 202
    - fixed interval schedule, 202
    - fixed ratio schedule, 202
    - negative reinforcement, 196–197
    - partial (intermittent) reinforcement, 202, 203t
    - positive reinforcement, 196
    - professional success and, 205–206
    - schedules of, 201–203
    - variable interval schedule, 202
    - variable ratio schedule, 202
  - Relationship conflicts, 380–382
  - Relationship focus, sex therapy and, 373
  - Relationships, 335–339
  - Relative height, 141
  - Relative size, 141
  - Relaxation, stress management and, 105
  - Relaxation techniques, chronic pain and, 95–96
  - Relaxed moral guard, 350

- Reliability
  - intelligence tests and, 274
  - projective tests and, 449
- Repair/restoration theory of sleep, 162
- Repetitive transcranial magnetic stimulation (rTMS), 514, 514f
- Representativeness heuristic, 261
- Repressed memories, 247–248, 498
- Repression, 102t
- Reproduction, observational learning and, 209, 209f
- Rereading, student success and, 34
- Research approaches, life span development and, 292–293
- Research challenge, 29, 66, 71, 93, 109, 133, 144, 155, 197, 210, 224, 265, 291, 341, 357, 372, 406, 433, 474, 485, 518, 543, 561
- Research methods, 20–32, 20t
  - correlational research, 20t, 22–26
  - descriptive research, 20t, 21–22
  - experimental research, 20t, 26–27
  - potential participant issues, 29
  - potential researcher issues, 26–28
  - quasi-experimental designs, 30
  - research safeguards, 30
- Resilience, mental health and, 488–489
- Resistance analysis, 497–498
- Resolution phase, sexual response cycle and, 365, 365f
- Retention, observational learning and, 209, 209f
- Retesting, 274
- Reticular formation (RF), 65
- Retina, 124
- Retinal disparity, 141, 142f
- Retirement, 339
- Retrieval
  - cues and, 230–231, 231f
  - failure theory and forgetting, 235
  - long-term memory and, 230, 231f
  - memory improvement and, 249–250
  - practice, 93
  - tips regarding, 230–231, 231f
- Retroactive interference, 234, 234f
- Retrograde amnesia, 242–243, 242f
- Reuptake process, 51
- Reversible figures, 139, 139f
- Right-brained, 73
- Risky behaviors, teenagers, 302, 302f
- Risky-shift phenomenon, 552
- Ritalin, 333
- Rods, 125–126
- Rogers, Carl, 6, 436–437, 499, 499f
- Rohypnol (date rape drug, roofies), 175–176
- Role conflict, 84
- Romantic attachment styles, 317
- Romantic love, 563
- Rooting reflex, 58f
- Rorschach inkblot test, 446, 446f
- Rotter, Julian, 440
- Runner's high, 121
- S**
- Saliency bias, 534
- SAM (sympatho-adreno-medullary) system, 89, 90f
- Sample bias, 26–27
- Savant syndrome, 275
- Saying “no,” 382–383
- Scale of decibels, 129, 129f
- Scatter plots, 23
- Schachter and Singer's two factor theory, 407f, 408–409
- Schedules of reinforcement, 201–203
- Schemas, cognitive development and, 306
- Schizophrenia, 476–479
  - behavior and, 478
  - biochemistry and, 478–479
  - biological factors and, 478–479
  - brain abnormalities and, 479, 479f
  - cultural issues and, 486
  - diathesis-stress model and, 479
  - dissociative identity disorder vs., 476–477
  - dopamine hypothesis and, 478–479
  - dopamine levels and, 51
  - emotion and, 477–478
  - frontal lobes and, 70
  - genetics and, 478, 478f
  - hallucinations and, 477
  - language and thought and, 477
  - negative symptoms and, 478
  - perception and, 477
  - positive symptoms and, 478
  - prenatal and environmental influences, 479
- Schizophrenia spectrum disorders, 463t
- School psychologists, 12t, 522t
- Scientific method, 14–16, 15f
- Secondary aging, 304
- Secondary appraisal, stress and, 101, 101f
- Secondary punisher, 198, 199f
- Secondary punishment, 198
- Secondary reinforcer, 196, 197f
- Secondary sex characteristics, 302, 302f, 362
- Secure attachment, 315, 316, 316f
- Selection, sensory information and, 136–138, 137f
- Selective attention, 136, 137f
- Selective perception, 503
- Selective serotonin reuptake inhibitors (SSRIs), 511t, 512, 512f
- Self-actualization, 437
- Self-concept, 436–437, 436f
- Self-efficacy, 439, 489
- Self-focus, emerging/young adulthood and, 303
- Self-help groups, 519
- Self-monitoring, studying and, 250
- Self-reports, objective tests and, 447
- Self-serving bias, 449, 535
- Self-talk, 501, 501f, 502
- Selye, Hans, 88–89, 88f
- Semantic memory, 223
- Semantics, language and, 258, 259f, 267
- Semicircular canals, 135
- Sensation
  - body senses, 133–135, 134f
  - hearing, 127–129
  - light and sound waves, 123, 123f, 124f
  - vs. perception, 117–118, 117f, 188t
  - processing and, 118–119, 118f
  - psychophysics and, 119–121
  - sensory adaptation, 121–122
  - smell and taste, 131–133
  - transduction and, 118
  - vision, 124–127
- Sensation seeking, 391
- Sensorimotor stage, cognitive development and, 308
- Sensorineural hearing loss, 129
- Sensory adaptation, 121–122
  - pain and, 121–122, 121f
  - phantom limb pain and, 122, 122f
- Sensory development, early childhood and, 301
- Sensory memory, 226, 226f
- Sensory neurons, 48
- Sensory responses, meditation and, 177, 177f
- Serial-position effect
  - forgetting and, 236, 236f
  - memory and, 249
- Serotonin, 52t
- Sex and gender
  - describing, 356–359
  - explaining, 359–363
  - differences, 361–362, 361f, 362t
  - dimensions of, 356, 357t
- Sex appeal, 144–145
- Sex hormones, 471
- Sex problems, 367–375, 463t
  - biological factors and, 368–370
  - common difficulties and, 368–371, 369t
  - legal and illegal drugs and, 372, 372t
  - paraphilic disorders, 367–368
  - psychological influences and, 370
  - sex therapy and, 371–373
  - sexually transmitted infections (STIs), 373–375
  - social and cultural factors and, 370–371, 371f
- Sex therapy, 371–373
- Sexual arousal, 364, 365f, 370
- Sexual behavior, 364–366
  - alcohol intake and, 172, 172f
  - gender differences and, 362t
  - pair bonding and, 364
  - research bias and, 29
  - sexual arousal and response, 364, 365f
  - sexual orientation, 364–366, 366f
- Sexual communication, 379–383
  - conflicts and, 380–382
  - male/female differences, 379–380, 379t
  - saying “no,” 382–383
- Sexual identity, 356–363
  - adrogyny and, 358–359
  - gender identity, 356, 359–361
  - gender-role development, 362–363, 363f
  - gender roles, 356
  - gender stereotypes, 356
  - income equality and, 357–358, 358t
  - physical differences, 361–362, 361f
  - transgender, 360
- Sexual orientation, 352, 354, 356t, 364–366, 366f
- Sexual prejudice, 366
- Sexual response cycle, 365, 365f
- Sexual scripts, 370–371, 371f
- Sexual victimization, 376–378
  - child sexual abuse, 376–377, 376f
  - rape, 377–378
  - recovering from, 378
  - repressed memories and, 247–248
- Sexuality. *See* Human sexuality
- Sexually transmitted infections (STIs), 373–375
  - common, 374–375, 374t
  - male-female differences and, 374–375, 375f
- Sexy clothing, signaling and, 406
- Shallow processing, memory and, 249
- Shape constancy, 142, 143f
- Shaping, 201, 507
- Sheehy, Gail, 342
- Shepard's tables, 136f
- Short-term memory (STM), 226–227
  - chunking and, 227, 227f
  - improvement of, 227
  - maintenance rehearsal and, 227
- Shyness, 507
- Similarity, interpersonal attraction and, 561–562
- Single-blind studies, 30, 30f
- Size constancy, 142
- Skin senses, 134, 134f
- Skinner, B. F., 6, 6f, 195–196

- Skinner box, 6, 6f, 199, 199f
- Sleep and dreams
  - adaptation/protection theory, 162
  - addiction effects on, 170
  - adolescent development and, 302
  - aging and sleep cycle, 163, 163f
  - circadian rhythms and sleep, 157–159, 157f
  - different mammals and, 162, 162f
  - growth/development theory, 162–163
  - learning/memory theory, 163
  - non-rapid-eye movement (NREM) sleep, 160–161
  - rapid-eye movements sleep, 160–161
  - repair/restoration theory, 162
  - sleep lab recordings and, 160f
  - sleep related brain-wave changes, 160f
  - sleep stages, 159–164, 160f
  - sleep theories, 162–163
  - sleep-wake disorders, 165–167, 165t, 463t
- Sleep apnea, 165t, 166–167
- Sleep deprivation, 158–159, 159f
- Sleep talking, 167
- Sleep terrors, 165t, 167, 167f
- Sleeping pills, 164
- Sleepwalking, 167
- Sleep-wake disorders,
- Slow-to-warm-up children, 329
- Slow wave sleep, 161
- Smell (olfaction), 131–133, 131f
- Snoring, 167
- Sobriety tests, 65, 65f
- Social anxiety disorder, 469
- Social cognition, 533–544
  - actor-observer effect and, 535, 535f
  - attitudes and, 536–538
  - attributional errors and biases and, 534–536, 534f
  - attributions and, 533–534
  - culture and attributional biases, 535
  - fundamental attribution error, 534
  - prefrontal cortex and, 533, 534f
  - prejudice and, 538–544
  - self-serving bias and, 535
- Social-cognitive personality theories, 438–441
  - Bandura's and Rotter's approaches, 439–440
  - evaluation of, 440
  - locus of control and, 440, 440f
  - reciprocal determinism and, 439–440, 440f
  - self-efficacy and, 439
- Social desirability bias, 29
- Social-emotional development, 314–319
  - attachment, 314–317
  - parenting styles, 317–318, 318t
  - romantic love and attachment, 316–317
- Social facilitation, 551
- Social impairment, 551
- Social influences, 545–553
  - conformity and, 545–547, 546f
  - group processes and, 550–553
  - intelligence and, 283
  - obedience and, 547–550
  - sex problems and, 370–371, 371f
  - stress and, 93
- Social-learning theory, 362–363, 363f
- Social loafing, 551
- Social media
  - group polarization and groupthink and, 553
  - stress and, 84
- Social phobia, 469
- Social psychologists, 12t
- Social psychology
  - social cognition, 533–544
  - social influence, 545–553
  - social relations, 554–563
- Social Readjustment Rating Scale (SRRS), 84–85
- Social relations, 554–563
  - aggression and, 554–555
  - altruism and, 556–558
  - interpersonal attraction and, 558–563
- Social skills, stress management and, 105
- Social support, stress management and, 93
- Socialization, 549
- Sociocultural factors
  - anxiety disorders and, 471
  - depressive and bipolar disorders and, 475
- Sociocultural perspective, 7–9, 7t
- Socioemotional selectivity theory, aging and, 340
- Softness vs. loudness, 129, 129f
- Somatic nervous system (SNS), 59
- Somatic symptom disorders, 463t
- Somatosensory cortex, 73, 73f
- Somnambulism, 167
- Somniloquy, 167
- Sound waves, 123, 123f, 124f
- Source amnesia, 236, 236f
- Spacing of practice, forgetting and, 236
- Spatial tasks, gender differences and, 63t
- Spearman, Charles, 273
- Specific phobia, 469
- Speech production, frontal lobes and, 69–70
- Spermarche, 301
- Spinal cord, 57–58, 58f
- Spinal reflex, 57, 58f
- Split-brain research, 75–76, 75f–76f
- Split-brain surgeries, 74
- Split-half method, intelligence testing and, 274
- Spontaneous recovery, classical conditioning and, 192
- Sports psychologist, 12t
- SQ4R method, 34, 34f
- Stability or change, life span development and, 291
- Stages or continuity, life span development and, 291, 292f
- Standard deviation, A-5–A-10
- Standardization, intelligence tests and, 274
- Stanford-Binet Intelligence Scale, 273
- Stanford Marshmallow Test, 440–441, 441f
- Stanford Prison study, 550–551, 551f
- State-dependent retrieval, 231
- Statistics, 15, A-1–A-10
  - abscissa and, A-3
  - class intervals and, A-3, A-3t
  - correlation and, 22–26, 20t, A-5, A-8, A-7t
  - correlation coefficient and, 22–23, 22f, A-7, A-8, A-8t
  - data and, A-1–A-10
  - dependent variable (DV) and, 26, 26f, A-2, A-4–A-5
  - descriptive statistics and, A-4–A-5, A-8
  - frequency distributions and, A-2–A-3, A-3t
  - gathering and organizing data and, A-1–A-4
  - group frequency distributions and, A-3, A-3t, A-4t
  - histogram and, A-3–A-4, A-3t, A-4t
  - independent variable (IV) and, 26, 26f, A-2, A-4–A-5, A-10
  - inferential statistics and, A-2, A-5, A-8–A-10
  - mean and, A-5–A-9, A-5t, A-6t
  - measures of central tendency and, A-5
  - measures of variation and, A-5–A-6
  - median and, A-5, A-6t
  - mode and, A-5, A-6t
  - normal distribution and, 273, 274f, A-6, A-6t
  - ordinate and, A-3
  - polygon and, A-3–A-4, A-4t
  - population and, A-5, A-10
  - raw data and, A-2–A-3, A-3t
  - reading graphs and, A-3–A-4
  - sample and, A-5, A-10
  - standard deviation and, A-5–A-8, A-6f, A-7t
  - t-test and, A-8–A-10, A-10t
  - variables and, 26, 26f, A-1, A-2, A-4, A-7–A-8
- Statistical significance, 16
- Stem cells, 45, 56–57
- Stereotype threat, IQ scores and, 281–282, 282f
- Stereotypes, 538
- Sternberg, Robert, 277–278, 278t, 562
- Sternberg's triarchic theory, 277–278, 278t
- Stimulants, 171t, 173
- Stimulus cues, hunger and eating and, 387
- Stonewalling, relationship conflicts and, 396
- Storage, memory improvement and, 249
- Stratton, George, 143
- Strength of correlation, 23, 23f
- Stress. *See also* Posttraumatic stress disorder (PTSD)
  - acculturative stress, 86–87
  - acute/chronic stress, 83–84
  - ancient times and, 89
  - benefits of, 92–93
  - cancer and, 92, 92f
  - cardiovascular disease and, 96–97
  - cataclysmic events and, 85–86
  - chronic pain and, 95–96
  - cognitive functioning and, 90–92, 91f
  - conflict and, 84
  - culture shock and, 86
  - depression and, effects of, 83–84, 87, 89, 91
  - eustress vs. distress, 92
  - frustrations and, 85
  - general adaptation syndrome (GAS) and, 88–89, 88f
  - hassles and, 84–85
  - hypothalamic-pituitary-adrenocortical (HPA) axis and, 89, 90f
  - illness and, 94–98
  - immune system and, 89–90
  - job stress and, 108
  - life changes and, 84–85
  - posttraumatic stress disorder (PTSD) and, 97–98, 97t, 98f
  - prejudice and discrimination and, 84, 84f
  - reactions to, 88–92
  - social media use and, 84
  - social support and, 93
  - sources of, 83–87, 83f
  - stressors, 82–83
  - sympatho-adreno-medullary (SAM) system and, 89, 90f
  - task complexity and, 92, 92f
  - ulcers and, 94–95
- Stress management, 99–105
  - behavior change and, 105
  - cognitive appraisal and, 100–101, 101f
  - defense mechanisms and, 101, 102t
  - emotion-focused coping and, 100
  - exercise and, 104
  - healthy living resources, 103
  - internal vs. external locus of control and, 102
  - locus of control, 102
  - material resources and, 105
  - mindfulness-based stress reduction (MBSR), 103–104
  - optimism and, 103
  - personality and individual differences, 102–103



positive affect and, 102–103, 103f  
 problem-focused coping and, 100  
 relaxation and, 105  
 social skills and, 104  
 stressor control and, 105  
 Stressors, 82–83  
 Stroke patients, 56, 57f  
 Stroop effect, 32–33, 32f  
 Structuralism, 5  
 Student success, 32–39  
   active reading and, 33–34  
   attitude adjustment and, 37  
   distributed practice and, 36–37  
   grade improvement and, 36–37  
   growth mindset and grit, 37–38, 38f  
   highlighting and rereading and, 34  
   note taking and, 34  
   overlearning and, 34–35  
   practice test taking and, 37  
   SQ4R method and, 34, 34f  
 Study habits and, 33–35, 33f, 34f, 35f  
 text familiarization and, 33  
 time management and, 35–36, 35f  
 Study skills courses, 36  
 Subgoals, problem solving and, 263t  
 Sublimation, 102t  
 Subliminal perception, 120, 229, 410  
 Subliminal stimuli, 120–121  
 Substance/medication-induced sexual  
   dysfunction, 369t  
 Substance-related disorders, 463t  
 Substantia nigra, 65  
 Suicide, danger signs for and prevention of,  
   464–466  
 Superego, 425  
 Superincision, 355  
 Superstitions, 25t, 204, 204f  
 Suprachiasmatic nucleus (SCN), 157, 157f  
 Survey/interview, 21  
 Sympathetic changes, meditation and, 177, 177f  
 Sympathetic dominance, 60, 60f  
 Sympathetic nervous system, 60  
 Sympatho-adreno-medullary (SAM) system,  
   89, 90f  
 Synapse, 49  
 Synaptic changes, memory and, 238–239  
 Synaptic pruning, teenagers and, 302, 302f  
 Syntax, language and, 267, 267f  
 Systematic desensitization, 505–506, 506f

## T

Tai chi, 177, 177f  
 Taijin Kyofusho (TKS), 471  
 Talk therapies, 496–504  
   cognitive therapies, 500–504  
   humanistic therapies, 499–500  
   psychoanalysis/psychodynamic therapies,  
     497–499  
 Tannen, Deborah, 380  
 Task complexity, stress and, 92, 92f  
 Taste (gustation), 131–133, 131f  
 Taub, Edward, 56, 57f  
 Technological advances, 8, 8f  
 Technostress, 109  
 Teenage brain, 302, 302f  
 Telehealth, 521  
 Telepathy, 145  
 Temperament, 424  
 Temperament theory, 329  
 Temporal lobes  
   memory and, 239f, 240  
   responsibilities of, 72–73

teenagers and changes in, 302, 302f  
 Temporary suppression, punishment and, 200t  
 “Tend and befriend,” stress and, 89  
 Teratogens, prenatal development and,  
   297–298, 298f  
 Terman, Lewis, 273, 276  
 Terrorist attacks, 85–86  
 Test anxiety, 509  
 Test-retest method, 274  
 Test-taking skills, 36  
 Text familiarization, 33  
 Texture gradient, 141  
 Thalamus, 66–67, 66f, 239, 239f  
 Thanatology, 345  
 Thematic Apperception Test (TAT), 399–400,  
   446, 446f  
 Theory, 16  
 Theory of mind (ToM), 312, 313f  
 Therapeutic alliance, 519  
 Therapy  
   behavior therapies, 505–509  
   biomedical therapies, 510–516  
   careers in mental health, 521t–522t  
   choosing a therapist, 520  
   cultural issues and, 523  
   deinstitutionalization and, 522, 522f  
   finding treatment and, 519–522, 521–522t  
   formats of, 519–521  
   gender and, 523–524  
   myths about, 496  
   psychotherapy in perspective, 516–525  
   side-by-side comparison of, 515t–516t  
   talk therapies, 496–504  
   three major approaches to, 496f  
   well-being therapy, 525  
 Thermogenesis, 395  
 Thinking, 258–265  
   cognitive building blocks and, 258–259  
   concepts and, 259, 259f  
   convergent vs. divergent and, 264  
   creativity and, 263–265, 263t  
   manipulating mental images and, 258–259  
   problem solving and, 259–263  
   prototypes and, 259  
 Third-variable problem, 24, 24f  
 Thomas, Alexander, 329  
 Thorndike, Edward, 195  
 Thought control, 524  
 Thought process, schizophrenia and, 477  
 Three-stage memory model, 225–231, 225f  
   long-term memory, 228–232, 228f  
   sensory memory, 226  
   short-term memory, 226–227  
 Thurstone, L. L., 273  
 Time management, 35–36, 35f  
 Tip-of-the-tongue (TOT) phenomenon, 235  
 Titchener, Edward, 5  
 Tobacco use, 173  
 Token economy, 507–508, 508f  
 Tolerance, psychoactive drugs and, 169  
 Tolman, Edward, 207  
 Top-down processing, 117  
 Touch, 314–315, 314f, 315f  
 Touching behavior, gender differences and, 362t  
 Trait, 430–435  
   early trait theories, 430–431  
   evaluating trait theories, 433–434  
   factor analysis, 431  
   five-factor model, 431–432, 431f  
   modern trait theories, 431–432  
 Transduction, 118  
 Transference, 498

Transgender, 352, 354, 356t, 360f, 361, 366  
 Transphobia, 8  
 Trauma- and stressor-related disorders, 463t  
 Traumatic brain injury (TBI), 241–242  
 Triangular theory of love, 562, 562f  
 Triarchic theory, intelligence and, 277–278, 278t  
 Trichromatic theory of color, 126, 126f  
 Trichromats, 127  
 Trust vs. mistrust, 330f  
 Twelve-step programs, 520  
 Twin studies, personality and, 442–443, 443f  
 Two-factor theory, emotions and, 407–409,  
   407f, 408f

## U

Ulcers, stress and, 94–95  
 Unconditional positive regard, 436, 437f,  
   499–500, 500f  
 Unconditioned response (UR), 187, 204t  
 Unconditioned stimulus (US), 187, 204t  
 Unconscious, 424  
 Unconscious conflict, 498  
 Undesirable emotional response, punishment  
   and, 200t

## V

Vaginismus, 369t  
 Validity, intelligence tests and, 275  
 Variable interval (VI) schedule, reinforcement  
   and, 202, 202t  
 Variable ratio (VR) schedule, reinforcement  
   and, 202, 202t  
 Verbal fluency, gender differences and, 63t  
 Vestibular sacs, 135  
 Vestibular sense, 134f, 135  
 Virtual reality therapy, 506, 506f  
 Virtuous cycle, 71–72, 72f  
 Vision, 118t, 124–127  
   blind spots and, 124  
   color-deficient vision, 127  
   color vision, 126–127, 126f  
   dark adaptation and, 126  
   electromagnetic spectrum for, 124, 124f  
   fovea and, 126  
   light adaptation and, 126  
   problems and peculiarities, 124–126  
   process of, 125, 125f  
   retina and, 124  
   rods and cones and, 125–126  
   step-by-step process of, 125  
 Visual cliff, 140–141, 141f  
 Visual cortex, 118t, 125f, 131f  
 Visual cues, depth perception and, 141, 141f  
 Visual images, iconic memory and, 226, 226f  
 Visuospatial sketchpad, working memory  
   and, 227  
 Voice, relationship conflicts and, 380  
 Volley principle for hearing, 128  
 Voluntary motor control, frontal lobes and, 70  
 Voluntary participation, 18  
 Vygotsky, Lev, 312  
 Vygotsky's zone of proximal development,  
   312, 312f

## W

Wall, Patrick, 121  
 Washburn, A. L., 394, 395f  
 Watson, John B., 6  
 Wave phenomena, light and sound, 123–124,  
   123f  
 Wear-and-tear theory, adult development and,  
   304  
 Wear-in-/wear-out theory, 138

## SI-14 Subject Index

Weber, Ernst, 119  
Weber's Law of just noticeable differences (JND), 119  
Wechsler Adult Intelligence Scale (WAIS), 274, 274f  
Weight loss, 397, 397f, 399t  
Well-being therapy (WBT), 525  
Wernicke, Carl, 72  
Wernicke's aphasia, 73  
Wernicke's area, 72, 267  
Whorf, Benjamin, 268–269  
Windigo psychosis, 462

Wish-fulfillment view of dreams, 163  
Witchcraft, 460, 460f  
Withdrawal reactions, psychoactive drugs and, 168  
Women. *See* Gender  
Work, aging and, 339  
Work conflict, 84  
Work performance, addiction effects on, 170  
Working backward, problem solving and, 263t  
Working memory, 69, 227–228, 228f  
Workplace discrimination, 484–486

Writing as therapeutic tool, 525  
Wundt, William, 5

## Y

Yerkes-Dodson law, 391–392, 392f

## Z

Zero correlation, 23, 23f, A-8, A-8f  
Zimbardo, Philip, 550–551, 551f  
Zimbardo's prison study, 550–551, 551f  
Zone of proximal development (ZPD), 312, 312f



