

# PSYCHOLOGY 97/98

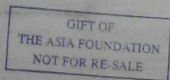
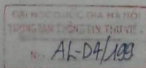
*Twenty-Seventh Edition*



Editor

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## UNIT 1



### The Science of Psychology

Four articles examine psychology as the science of behavior.

#### To the Reader

#### Topic Guide

#### Overview

1. The "Soul": Modern Psychological Interpretations, Morton Hunt, *Free Inquiry*, Fall 1994. iv  
Morton Hunt traces the concept of soul, or mind, from early philosophers to contemporary psychologists' concepts of consciousness. As he develops history, Hunt reveals important points: for example, humans are the only creatures that think about thinking. 2
2. Scientific and Professional Psychology, Nathaniel J. Pallone, *Society*, November/December 1992. 4  
The number of psychologists in the United States has quadrupled over the last three decades. Nathaniel Pallone looks at the scientists versus the practitioners, fragmentation in psychology, and the future of this vast field. 6
3. "Mother Love" Revisited: On the Use of Animal Models, Peter H. Klopfer, *American Scientist*, July/August 1996. 11  
For decades scientists have happily extrapolated from animal models to humans. Peter Klopfer explores the merits and limitations of using animals to understand human behavior. 17
4. On the Validity of Psychology Experiments, John F. Kihlstrom, *APS Observer*, September 1995. 20  
John Kihlstrom examines the use of volunteer subjects, demand characteristics, the pact of ignorance between experimenter and subjects, and other phenomena unique to psychological research with human subjects. In so doing, he compares the artificiality of laboratory experiments with what happens in the real world. 22

## UNIT 2



### Biological Bases of Behavior

Five selections discuss the biological bases of behavior. Topics include brain functions and the brain's control over the body.

#### Overview

5. Nature, Nurture, Brains, and Behavior, Kenneth J. Mack, *The World & I*, July 1996. 24  
*Genes and the environment* interact to affect development. Some researchers maintain that a complex environment that promotes learning excites nerve cells and can therefore alter genetic expression. Behavioral research with children in *Head Start programs* is helping us better understand the complex interplay among genes, environments, the nervous system, and learning. 26
6. Unraveling the Mystery of Life, Mariette DiChristina, *Bostonia*, Fall 1995. 30  
*Genome research*, attempting to determine which genes are responsible for which human traits, enables scientists to predict which individuals might suffer from a particular disease and shows how to treat or prevent certain disorders. 34
7. The New Social Darwinists, John Horgan, *Scientific American*, October 1995. 34  
A second Darwinian revolution may be occurring. *Evolutionary psychologists* view *natural selection* as responsible for sexuality, male dominance, language, stepparent murders of stepchildren, and other behavior. Their view contrasts sharply with cultural explanations and is, of course, not without criticisms.

## UNIT 3



### Perceptual Processes

Five articles discuss the impact of the senses on human perceptual processes.

## UNIT 4



### Learning and Remembering

Four selections examine how operant conditioning, positive reinforcement, and memory interact during the learning process.

8. **Secrets of the Brain**, Mark Nichols, *Macleon's*, January 22, 1996. 40  
With the assistance of **brain-scanning technology**, scientists are mapping and understanding **brain functions**. Anxiety, memory, mental disorders, and nerve cell regeneration are just some of the neuronal activities under investigation.
9. **Revealing the Brain's Secrets**, Kathleen Cahill Allison, *Harvard Health Letter*, January 1996. 46  
Discoveries in **molecular biology and genetics** are unlocking the mysteries of Alzheimer's disease, depression, and other **brain disorders**. From their discoveries, scientists hope to find new forms of **treatment** for such disabling problems.

### Overview

10. **How the Brain Might Work: A New Theory of Consciousness**, Sandra Blakeslee, *New York Times*, March 21, 1995. 50  
Timing and rhythm in the **brain** may be the organizing principles for making visual images and other **sensory impressions**. Should this new theory be correct, it would provide scientists with a new explanation for consciousness. 52
11. **Seeing Is Hearing**, *APS Observer*, January 1995. 56  
Two researchers, psychologist Dominic Massaro and his associate, Michael Cohen, have developed computerized talking heads. The heads allow them to study the comparative roles played by **vision and hearing** in understanding language. Their study of **speech perception** has important ramifications for everyday life, especially for individuals with visual or auditory disabilities.
12. **Good Vibrations**, JoAnn C. Cutin, *Discover*, June 1993. 59  
We are besieged each day with **noises**. The 32,000 receptors in our ears receive this stimulation and transmit it to the **brain**. The noise becomes interpretable sounds via this fascinating and sophisticated process.
13. **Touching the Phantom**, James Shreeve, *Discover*, June 1993. 64  
**Phantom limbs** (amputated limbs with remaining sensations) produce stimuli that do not exist. The study of these limbs is enabling scientists to understand the relationship of the **brain** to sensation.
14. **Does ESP Exist?** Daryl J. Bem, *The World & I*, August 1994. 69  
In science, a phenomenon is not generally considered established until it has been observed repeatedly by different researchers. Daryl Bem explores research on **extrasensory perception** and concludes that evaluating psychic data is a risky business at best.

### Overview

15. **What Constitutes "Appropriate" Punishment?** Paul L. DeVito and Ralph Hyatt, *USA Today Magazine* (*Society for the Advancement of Education*), March 1995. 72  
Paul DeVito and Ralph Hyatt explore the philosophy of **punishment** and differentiate it from **reinforcement**. In order for punishment to be effective, it must be dispensed appropriately. Guidelines are presented in this report. 74
16. **Biologists Find Site of Working Memory**, Daniel Goleman, *New York Times*, May 2, 1995. 77  
Using positron emission tomography (PET) scans, **neuroscientists** think they have located the scratch pad of the brain, which operates like random access memory in a computer. Located in the **prefrontal cortex**, this working **memory** retrieves information stored elsewhere in the brain.

## UNIT 5



### Cognitive Processes

Five articles examine how social skills, common sense, and intelligence affect human cognitive processes.

17. **It's Magical! It's Malleable! It's . . . Memory.** Jill Neimark, *Psychology Today*, January/February 1995. 80  
Memory is complex, malleable, and mysterious. Psychologists have developed more clever and sophisticated techniques for studying this all-important phenomenon.
18. **Lies of the Mind.** Leon Jaroff, *Time*, November 29, 1993. 86  
Many adults are discovering memories of childhood abuse. Real or imagined, these memories wreak psychological havoc on individuals and families. New support groups and therapies are available, but some of the *therapy* may be prompting memories that are not accurate.

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| 19. <b>A Child's Theory of Mind.</b> Bruce Bower, <i>Science News</i> , July 17, 1993. <span style="float: right;">92</span>                                                                                                                                                                                  |    |
| Knowledge and thought change substantially throughout childhood. Today's researchers in <i>cognitive development</i> disagree with the theory of <i>Jean Piaget</i> . Much more goes on in children's heads than Piaget hypothesized.                                                                         |    |
| 20. <b>Traffic Jams in Brain Networks May Result in Verbal Stumbles.</b> Sandra Blakeslee, <i>New York Times</i> , September 26, 1995. <span style="float: right;">96</span>                                                                                                                                  |    |
| Freudian slips, the tip-of-the-tongue phenomenon, and other <i>language problems</i> that seemingly originate in the brain are the subject of intensive study by cognitive scientists. Perhaps three different <i>lexical networks</i> enable us to make sense of our language.                               |    |
| 21. <b>Clever Measures.</b> Hans Eysenck, <i>The Times Higher Education Supplement</i> , January 27, 1995. <span style="float: right;">99</span>                                                                                                                                                              |    |
| A noted psychologist suggests that Sir Francis Galton's theory that general intelligence is primarily inherited and Alfred Binet's theory that environment influences intelligence both have merit. This balanced perspective on intelligence is a welcome addition to the recent and heated debates over IQ. |    |
| 22. <b>Reflections on Multiple Intelligences: Myths and Messages.</b> Howard Gardner, <i>Phi Delta Kappan</i> , November 1995. <span style="float: right;">101</span>                                                                                                                                         |    |
| Howard Gardner explores some myths that have grown up around his concept of <i>multiple intelligences</i> . He also discusses how education can enhance our seven intelligences.                                                                                                                              |    |
| 23. <b>Can Machines Think?</b> Robert Wright, <i>Time</i> , March 25, 1996. <span style="float: right;">106</span>                                                                                                                                                                                            |    |
| News of computers' playing chess against humans brings to the surface the issue of <i>artificial intelligence</i> . The debate continues as to whether or not machines will ever have the complex and creative cognitive capacities of humans—for example, facial recognition.                                |    |

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| 24. <b>Where Emotions Come From.</b> <i>U.S. News &amp; World Report</i> , June 24, 1991. <span style="float: right;">112</span>                                                                                                                    |     |
| The range of human emotions, sincere and fake, is as complex as the <i>physiological circuitry and developmental patterns</i> underlying our emotions.                                                                                              |     |
| 25. <b>The EQ Factor.</b> Nancy Gibbs, <i>Time</i> , October 2, 1995. <span style="float: right;">119</span>                                                                                                                                        |     |
| Recent brain research suggests that emotions, not the traditional IQ rating, may be the <i>true measure of human intelligence</i> . Nancy Gibbs examines this latest trend in the assessment of human ability to cope successfully with challenges. |     |

## UNIT 6



### Emotion and Motivation

Six articles discuss the influences of stress, mental states, and emotion on the mental and physical health of the individual.

## UNIT 7



### Development

Five articles consider the importance of experience, discipline, familial support, and physiological aging during the normal human development process.

26. **A Doubtful Device**, Lisa Davis, *Hippocrates*, November/December 1992 124  
There is no doubt that the *polygraph* measures *physical arousal*. However, it is very doubtful that the apparatus measures *lying*. In fact, an innocent person has a fifty-fifty chance of failing a polygraph test.
27. **The New Frontiers of Happiness . . . Happily Ever After**, Peter Daskoch, *Psychology Today*, July/August 1996 126  
*Humor* is a full-cortex experience that leaves us less depressed, less anxious, and more creative. However, new research is disclosing that the use of humor as a *coping mechanism* has its limits.
28. **Chemistry and Craving**, Hara Estroff Marano, *Psychology Today*, January/February 1993 129  
The epicenter in the brain for *eating* is the *hypothalamus*. Two different *neurochemicals* are linked to our preferences for carbohydrates and fats. *Dieting* and *stress* upset the delicate balance between these two neurochemicals.
29. **Is There a Science of Success?** Nicholas Lemann, *The Atlantic Monthly*, February 1994 135  
Americans want to believe in success or, as they label it, "achievement." Nicholas Lemann examines the relationship between motivation and economic success. Psychologist David McClelland is reviewed along with other psychologists who have made a science of studying achievement and other motives.
- Overview 146
30. **Heads or Tails? How Embryos Get It Right**, Natalie Angier, *New York Times*, November 21, 1995 148  
Scientists are studying embryos from a variety of species right after conception. This early embryonic stage is remarkable because the embryo must distinguish its head from its tail and left from right. Each cell must "learn" its place in the organism's plan. How the embryo makes these distinctions is complex and remarkable.
31. **Your Child's Brain**, Sharon Begley, *Newsweek*, February 19, 1996 151  
Exciting new neuroscience demonstrates that *environmental enrichment* for babies strengthens many types of *neural connections*. This enrichment, both physical and mental, enhances such abilities as language, music, and logic.
32. **Fathers' Time**, Paul Roberts, *Psychology Today*, May/June 1996 157  
*Fathers* and *mothers* parent their children differently. The influence of the father on the child is now considered important and complex. Fathers, for example, are more physical, joking, and playful with their children than are mothers, who are more comforting and protective. The father's style may be what promotes *autonomy* in adolescence.
33. **Helping Teenagers Avoid Negative Consequences of Sexual Activity**, Jeannie I. Rosoff, *USA Today Magazine* (Society for the Advancement of Education), May 1996 164  
*Adolescents* have normal sexual urges, so how can they be taught to resist these urges, particularly with all the sex portrayed in the American media? Jeannie Rosoff explores data on teen sexuality and offers practical advice on how to cut down on teen sexual activity.
34. **Is It Normal Aging—Or Alzheimer's?** Consumer Reports on Health, October 1995 167  
This concise article describes the causes and consequences of *Alzheimer's disease*. The article enables the reader to differentiate between *normal memory failure* due to aging or depression from the more disabling memory failure of Alzheimer's disease.

# UNIT 8



## Personality Processes

Four selections discuss a few of the processes by which personalities are developed. Topics include sex differences, state of mind, and hostility.

|                                                                                                                                                                                                                                                                                                                                         |     |
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| Overview                                                                                                                                                                                                                                                                                                                                | 170 |
| 35. The Stability of Personality: Observations and Evaluations, Robert R. McCrae and Paul T. Costa Jr., <i>Current Directions in Psychological Science</i> , December 1994.                                                                                                                                                             | 172 |
| There is substantial evidence for the stability of personality as well as for individual differences in personality traits. The authors review research on personality that supports their view and critique research methodology that does not.                                                                                        |     |
| 36. Changing Your Self-Concept, Paul M. Insel, <i>Healthline</i> , December 1995.                                                                                                                                                                                                                                                       | 176 |
| Paul Insel delineates and defines self-concept and self-esteem. He also differentiates high-esteem from low-esteem individuals. People with healthy self-concepts relate well to others, are less likely to be defensive, and adapt well to changes.                                                                                    |     |
| 37. Are You Shy? Bernardo J. Carducci with Philip G. Zimbardo, <i>Psychology Today</i> , November/December 1995.                                                                                                                                                                                                                        | 178 |
| Shy people suffer not just from the shyness but also from inability to think clearly in the presence of others, from the perception by others that they are snobbish, and from an overall lack of success. The social, cultural, and physiological causes of shyness as well as ways to prevent shyness are elaborated in this article. |     |
| 38. Hotheads and Heart Attacks, Edward Dolnick, <i>Health</i> , July/August 1995.                                                                                                                                                                                                                                                       | 185 |
| Type A theory is replacing the concept of Type A personality. Type A's are competitive, hostile, and deadline oriented. Hostility, though, especially when acted on, may be the real culprit for those prone to heart attacks.                                                                                                          |     |

# UNIT 9



## Social Processes

Five selections discuss how the individual's social development is affected by genes, stereotypes, prejudice, and self-help.

|                                                                                                                                                                                                                                                                                                                                        |     |
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| Overview                                                                                                                                                                                                                                                                                                                               | 190 |
| 39. The Dynamics of Social Dilemmas, Natalie S. Glance and Bernardo A. Huberman, <i>Scientific American</i> , March 1994.                                                                                                                                                                                                              | 192 |
| Inducing individuals to contribute to common causes when selfish actions would be more immediately and personally beneficial is a challenge. The dimensions of groups and social dilemmas that impact on cooperation and other processes are examined by Natalie Glance and Bernardo Huberman.                                         |     |
| 40. Mixed Blood, Jefferson M. Fish, <i>Psychology Today</i> , November/December 1995.                                                                                                                                                                                                                                                  | 197 |
| The American concept of race is quite different from the concept of race in other cultures. Thus, the American concept is just one of many "folk taxonomies." Because race as construed by Americans does not exist, debating racial differences in IQ is moot, says Jefferson Fish.                                                   |     |
| 41. Disintegration of the Family Is the Real Root Cause of Violent Crime, Patrick F. Fagan, <i>USA Today Magazine</i> (Society for the Advancement of Education), May 1996.                                                                                                                                                            | 202 |
| The popular assumption that there is an association between race and crime is false, writes Patrick Fagan. When other factors are controlled, one variable seems to account for our crime wave—illegitimacy. Fagan traces the development of violence from childhood through adulthood in a child, white or black, from a broken home. |     |

# UNIT 10



## Psychological Disorders

Six articles examine several psychological disorders. Topics include unexpected behavior, the impact of depression on a person's well-being, and addiction.

42. Preventing Failure in Intimate Relationships, J. Earl Thompson Jr., *USA Today Magazine* (Society for the Advancement of Education), March 1996. 205  
Several myths regarding likelihood of divorce are countered in this essay. Data is utilized to show why couples' relationships disintegrate, and advice is also given about what strategies work for keeping relationships healthy.
43. The Enduring Power of Friendship, Susan Davis, *American Health*, July/August 1996. 208  
Adult friendships are not studied as often as adult romances or childhood friendships. Research indicates that most adult friendships end due to life transitions and that they dissolve with a whimper, unlike some of our romantic relationships.
- Overview 210
44. Should We Destigmatize Mental Illness? Richard E. Vatz, *USA Today Magazine* (Society for the Advancement of Education), May 1996. 212  
Lobbyists and mental health advocates are trying to destigmatize mental illness and to classify much of it as brain disorders rather than simply problems of living. The destigmatization movement has its downsides, as Richard Vatz explains.
45. Stress: It's Worse Than You Think, John Carpi, *Psychology Today*, January/February 1996. 215  
Stress is at epidemic proportions. It affects both our physical and psychological being. Managing stress is important, and John Carpi provides a multitude of techniques for coping with stress.
46. Life in Overdrive, Claudia Wallis, *Time*, July 18, 1994. 223  
Attention deficit disorder is the diagnosis du jour, one of the fastest growing and most ubiquitous psychological diagnoses. What the disorder is and how to diagnose and treat it are the focus of this report.
47. Defeating Depression, Nancy Wartik, *American Health*, December 1993. 229  
Millions are afflicted with depression. Scientists believe a combination of genetics, personality structure, and life events triggers major depression. A self-assessment quiz is included in this essay, as is a discussion of a variety of important treatments.
48. Patterns of Abuse, *Newsweek*, July 4, 1994. 235  
Two million women are physically abused every year. Who they are, who the abusers are, why some women stay while others leave after being abused, and where they can get help are highlighted in this report.
49. Addiction: A Whole New View, Joann Ellison Rodgers, *Psychology Today*, September/October 1994. 240  
Is addiction a lifelong disease or a behavior similar in several respects to other behaviors? The latter view is adopted in this article, which examines successful versus unsuccessful treatment methods.

# UNIT 11



## Psychological Treatments

Four selections discuss a few psychological treatments, including psychoanalysis, psychotherapy to alleviate depression, self-care, and the use of drugs.

### Overview

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 50. Frontiers of Psychotherapy, Saúl Fuks, <i>The UNESCO Courier</i> , February 1996.                                                                                                                                                                            | 246 |
| In the past, psychotherapists were construed as powerful healers. However, the trend today is to empower clients to assume responsibility for their own lives. Thus, the roles, practices, contexts, and forms of therapy are changing.                          | 248 |
| 51. What You Can Change and What You Cannot Change, Martin E. P. Seligman, <i>Psychology Today</i> , May/June 1994.                                                                                                                                              | 250 |
| Americans seem to be on constant self-improvement kicks, many of which fail. Martin Seligman helps us understand which endeavors we waste our time on and which ones we can probably make some progress on. In particular, he discusses psychological disorders. | 250 |
| 52. Prescriptions for Happiness? Seymour Fisher and Roger P. Greenberg, <i>Psychology Today</i> , September/October 1995.                                                                                                                                        | 258 |
| The results of a myriad of psychopharmacological studies are questioned. First, studies that show any effect of antidepressant drugs demonstrate only modest effects. Second, these and weaker studies have sampling problems and other built-in biases.         | 258 |
| 53. Upset? Try Cybertherapy, Kerry Hannon, <i>U.S. News &amp; World Report</i> , May 13, 1996.                                                                                                                                                                   | 263 |
| More psychologists are offering computerized or electronic consultation for fees. Ethical standards lag behind the growth of Web sites. This article lists several legitimate sites for finding psychological information and help.                              | 263 |
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