

DAVID
J. MURRAY

A
HISTORY OF
WESTERN
PSYCHOLOGY

A HISTORY OF WESTERN PSYCHOLOGY

David J. Murray

Queen's University

Prentice-Hall, Inc. Englewood Cliffs, N.J. 07632

Library of Congress Cataloging in Publication Data

MURRAY, DAVID J.

A history of Western psychology.

Bibliography: p.

Includes indexes.

1. Psychology—History. I. Title.

BF81.M83 150'.9 82-5220

ISBN 0-13-392381-9 AACR2

*Editorial/production supervision and interior
design by Linda Schuman
Cover design by Miriam Recio
Manufacturing buyer: Edmund W. Leone*

© 1983 by Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632

All rights reserved. No part of this book
may be reproduced in any form or
by any means without permission in writing
from the publisher.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

ISBN 0-13-392381-9

PRENTICE-HALL INTERNATIONAL, INC., *London*
PRENTICE-HALL OF AUSTRALIA PTY. LIMITED, *Sydney*
PRENTICE-HALL CANADA, INC., *Toronto*
PRENTICE-HALL OF INDIA PRIVATE LIMITED, *New Delhi*
PRENTICE-HALL OF JAPAN, INC., *Tokyo*
PRENTICE-HALL OF SOUTHEAST ASIA PTE. LTD., *Singapore*
WHITEHALL BOOKS LIMITED, *Wellington, New Zealand*

*This work is dedicated
to the memory of my mother*

Figures

- 1-1 The Main Figures of Ancient and Medieval Psychology Placed in Chronological Perspective 9
- 1-2 The Main Pre-Socratic Philosophers of Interest to Psychologists: Their Locations and Their Contributions 15
- 1-3 Interaction between the Vascular System and the Nervous System: The Modern View and Erasistratus's View 35
- 2-1 The Chronological Relationships of the Major Early Christian Writers to Each Other 40
- 3-1 Chronological Order in Which Most of the Major Sixteenth-, Seventeenth-, and Eighteenth-Century Works on Psychology Were Written 59
- 4-1 Condillac's Scheme of Cognitive Activity Derived from Sensations 101
- 5-1 The Main Psychological Works Written in Britain and Europe between 1800 and 1879 116
- 6-1 The Three Psychological Methods of Fechner (1860) 157
- 7-1 Wundt's Main Works 174
- 7-2 Main Developments in Experimental Psychology at the End of the Nineteenth Century 184
- 7-3 Students Who Obtained Their Doctorates at Leipzig, Göttingen, and Berlin in the Late Nineteenth Century 189
- 8-1 Schematic Representation of Some of the Terms Used by Members of the Würzburg School 240
- 9-1 The Careers of Wertheimer, Köhler, and Koffka 245

Preface

This history of Western psychology is intended as a textbook, but it will also be valuable to all who are interested in an overview of the subject. Originally, the book was intended to cover the history of psychology up to 1940, but a chapter has been added to give the reader some sense of continuity with present-day research. Any up-to-date textbook, such as Darley, Glucksberg, Kamin, and Kinchla's *Psychology*, will complement this chapter on most of the matters raised.

For reading preliminary drafts of various sections I am indebted to Páll Árdal, Neil Bartlett, Ian Hacking, P. K. Rose, and Noel Smith. Among my colleagues in the Psychology Department at Queen's University, I must particularly thank James Inglis, Andrew McGhie, and Susan Lederman for advice and the loan of materials. I am also grateful to Rizwan Kheraj and Megan Ward for discussion and to Anne Chenier and Gail Fox for research assistance in the early phases of the work. Fatima Kheraj deserves special mention for her skills and patience as my research assistant during the later stages of writing.

I should like to acknowledge the valuable help given to me by the reviewers who commented on the book at the various stages of its completion: Richard L. Blanton, Vanderbilt University; Arthur Blumenthal, University of Massachusetts—Boston; Darryl Bruce, The Florida State University; T. S. Krawiec, Professor Emeritus, Skidmore College; Abraham S. Luchins, State University of New York at Albany; Nicholas Rohrman, Colby College; and E. L. Saldanha, University of Southern Maine.

I was able to finish much of the first part of the book during the tenure of a Leave Fellowship awarded by the Social Sciences and Humanities Research Council of Canada. Auxiliary funding came from Natural Sciences and Engineering Research Council Canada Operating Grant A0-126 and a grant from Queen's University.

David Murray
Kingston, Ontario

**A HISTORY
OF
WESTERN
PSYCHOLOGY**

Contents

Figures xi

Preface xiii

Prologue: Political History 1

1 The Beginnings of Psychology 8

Ancient times 8
The pre-Socratic philosophers 15
Plato and Aristotle 19
Hellenistic and Roman psychology 28
Ancient physiological psychology 32
Summary 37

2 Early Christian and Medieval Psychology 39

The Church Fathers 39
St. Augustine 44
Arabic psychology 48
St. Thomas Aquinas 51
Other medieval writers 54
Summary 56

3 The Sixteenth and Seventeenth Centuries 58

- The sixteenth century* 58
- Early seventeenth-century science* 65
- Descartes* 67
- Late seventeenth-century physiologists* 73
- Late seventeenth-century philosophers* 79
- Summary* 86

4 The Eighteenth Century 87

- Physiological advances* 87
- The philosophical tradition: Britain and France* 93
- The philosophical traditions in Germany* 106
- Summary* 113

5 1800 to 1879: The British Tradition 115

- Knowing* 123
- Feelings* 129
- Willing* 131
- Consciousness* 133
- Summary* 134

6 1800 to 1879: The Experimental Tradition 136

- Herbart and Beneke* 136
- Physiological psychology* 141
- The special senses: The origins of psychophysics* 149
- The special senses: Audition and vision* 158
- Reaction time* 168
- Summary* 169

7 1879 to about 1910: Wundt and His Influence 171

- Wilhelm Wundt* 171
- Ebbinghaus and G. E. Müller* 183
- Wundt's German students* 190
- Wundt's American students* 193
- Appendix: "Structuralism" versus "functionalism"* 203
- Summary* 207

8 1879 to about 1910: Other Currents of Thought 209

- James and his contemporaries* 209
The theory of evolution and its impact on psychology 220
Act psychology: The Würzburg school 234
Summary 241

9 Gestalt Psychology 243

- The origins of Gestalt psychology* 243
Early Gestalt experiments: 1912–1929 246
Syntheses of Gestalt psychology: 1929–1944 251
Kurt Lewin 255
Summary 257

10 Behaviorism 258

- Animal psychology prior to 1913* 259
Russian psychology 266
J. B. Watson and behaviorism 273
Neobehaviorism 279
Summary 285

11 Psychoanalysis 287

- The history of psychiatry* 287
Hypnosis and hysteria before Freud 293
Freud 297
Developments related to Freud's theory 308
Summary 313

12 1879 to 1940: New Directions 315

- Physiological psychology* 315
Psychometrics 325
Social psychology 330
Applied psychology 333
Summary 337

13 1940 to 1980: Eclectic Psychology 339

- Gestalt psychology* 340
Behaviorism 342

Psychoanalysis 345
Cognitive psychology 350
Humanistic psychology 354
Other advances in psychology 356
Acquisition of information by the developing child 357
Development beyond childhood 362
Heredity and environment: Intelligence and mental illness 364
Other influences on the developing individual 368
Physiological psychology 373
Summary 376

References 378

Name Index 407

Subject Index 417

Prologue: Political History

The history of psychology forms a branch of history that has recently come to be known as intellectual history (Stromberg, 1975). This includes the history of ideas and of scientific discoveries and inventions; in part it tries to explain trends reflected in the history of the various arts. Other branches of history are political history, the story of the rise and fall of kingdoms, dynasties, empires, and nations and how these are affected by changes of fortune such as those imposed by economic events; and social history, the account of everyday life and conditions in various periods. Clearly in a history of psychology we shall be little concerned with political and social history—although the effects of various social attitudes such as those towards scientific inquiry or mental illness run like undercurrents through the history of psychology. But it is perhaps best to start this account with a brief survey of the main events of Western experience. The student should be familiar from the outset with terms such as *Hellenistic*, *medieval*, *Renaissance*, and *Reformation*. This section will briefly introduce these terms; they will be dealt with in more detail in later sections.

The earliest Western civilizations of which we have written records—that is, the earliest civilizations that had invented writing—were those of the Tigris and Euphrates valleys in what is now Iraq and those of the Nile Valley in Egypt. The former probably influenced the latter. We know the names and approximate dates of their kings back as far as about 3000 B.C.; these civilizations flourished until about 600 B.C. Their political history is mainly one of war and conquest, but their social history reveals that they had

domesticated animals, grew crops in the fertile river valleys, produced metal, pottery, and cloth, had developed complicated and mainly polytheistic religions, believed in an afterlife, had slavery to some extent, and had developed systems of simple mathematics and medicine. Astronomers in both valleys kept records of the heavens, and from them the Egyptians adopted a year of 365 days. Although there were many physicians, priests, and artists during these centuries, few individual names are known to us. Hammurabi, a king of the Babylonians, caused the first known set of laws to be written down in about 1700 B.C. The Egyptians had books describing one's supposed conduct in the afterlife, and there was one king, Akhnaton (about 1379–1361 B.C.), who tried to persuade his people to worship one solar deity. There was a surge of poetry and naturalistic art during his reign, but his attempt failed and in the later periods of Egyptian civilization the people reverted to the older, polytheistic system.

Many unknown scribes, sculptors, and painters recorded the events of these centuries, often simply to satisfy the vainglory of their royal patrons. From Egypt we have certain medical documents that reveal something of primitive surgery and physiology (see Chap. 1). Although Akhnaton failed to persuade his nation of the virtues of monotheism, another tribe, the Hebrews, did come to worship one god, Jehovah, and from this belief would later spring both Christianity and, to a much lesser extent, Mohammedanism. The early history of the Jews is recorded in the Old Testament: They settled mainly in what is now Israel perhaps between 1400 and 1200 B.C. and were later joined by another group of Jews who had escaped from a slavlike existence in Egypt. The leader of this latter group was Moses who, like Hammurabi, set up a code of laws that has persisted as part of Judaism to this day.

Between 2000 and 1000 B.C. civilization was also beginning around the Aegean Sea in such areas as Crete, Mycenae, and Troy. The people of the Mycenae region, known as Achaeans, attacked Troy, and we still read of the Trojan War in the long epic poems of the *Iliad* and the *Odyssey*. Following invasions from the North, however, these civilizations died away and were replaced by many small colonies—city-states—across the areas now known as southern Greece and western Turkey. The best-known were Sparta and Athens, but intellectual life was now focused in the Turkish colonies (the region then called Ionia). Gradually, however, Athens came to dominate and founded an empire; the fifth century B.C. is the period of “classical” Greece when Athens, although somewhat tyrannical towards her subject colonies, nevertheless became a center of culture and relative freedom. It is in this period that modern drama, sculpture, philosophy, historical writing, political theorizing, physics, and other sciences originate, as will be described later.

In 338 B.C., however, Philip of Macedonia conquered Athens and the other small states and became the king of Greece. Two years later he was assassinated and his son, Alexander, who had been educated in Macedonia

by Aristotle, succeeded him. Alexander began a career of new colonization when he took his Greek troops and conquered the Turkish region, the Valley of the Euphrates, most of the Middle East, including Persia, and the Nile Valley. The period that then ensued—during which all these areas learned from Greek culture and in turn contributed to Greek culture—is known as the Hellenistic period. It is also during this period that Greek thought comes into contact with Jewish thought, though the Jews were rather resistant to incorporating those aspects of Greek thought likely to turn them away from the worship of Jehovah. The Hellenistic period is also famous for its scientific achievements, many of which were recorded in the Egyptian town of Alexandria. But in turn the Hellenistic world fell to a new nation, the Romans: It is sometimes stated that the end came in 31 B.C. when Alexandria was lost to this people.

Italy during this early period had been settled by various tribes from the North and had also been colonized by the Greeks, but according to Roman tradition, Rome itself was founded at an important river crossing in 753 B.C. or thereabouts. After internal strife and wars with neighboring tribes, the Romans succeeded in conquering Italy and, later, North Africa and Greece. By the time Alexandria was taken, Rome had an empire stretching from Britain in the North to Spain in the South and to the Euphrates in the East. The power in Rome was consolidated in large part by Julius Caesar, and its cultural and political pride was at its zenith under the reign of the emperor Augustus. The Empire extended over what is now Israel, and this area thus represented a mixture of Greek, Jewish, and Roman influences: It was into this atmosphere that Jesus was born and founded a new sect dedicated to the belief that Jesus had atoned before Jehovah for the sins of man. At first this was a small Jewish sect, but St. Paul spread the new religion to non-Jews in the Middle East and Turkey, and later to Greece and Rome.

The three hundred years or so following Jesus' death are marked by a slow decline in the power of Rome and a slow rise in the acceptance of Christianity. In 313 Constantine, then emperor, declared Christianity to be a tolerated religion of the Roman state; shortly afterwards, partly because of attacks on Rome by peoples from northern Europe, he moved the capital from Rome to Byzantium (later called Constantinople; today called Istanbul). Rome fell in 410 to the Goths but still retained its importance as a bishopric; even as this was happening, St. Augustine, a bishop of the Church in North Africa, was writing his authoritative theological works. The following period, from about 500 to 1000, is known in Europe as the Dark Ages. Greek and Roman books were destroyed or lost; little progress was made in literature or science; life consisted of surviving the attack of one form of pillager or another. However, Byzantium and Rome preserved the teachings of Christianity, and at Bagdad, Cairo, Cordoba, and other centers the proponents of another new religion, Mohammedanism (Islam), kept alive the culture of the Greeks and Romans. There was a time when Islam threatened

Europe: The Arabs were defeated at the battle of Poitiers (sometimes called the battle of Tours) in 731. On the other hand eastern Turkey became Mohammedan after the battle of Manzikert in 1071. Also in 1054 there was a schism in the Church between the beliefs of those centered in Byzantium and those centered in Rome. The latter came to dominate western Europe.

The period from about 1000 to 1500, known as the medieval period, or Middle Ages, is marked by the Church's being at the peak of its power; the Pope was essentially the lord of Europe, and at his instigation the various kings of the nations of Europe sent missions to the Middle East to recapture Jerusalem for Christianity. This venture had a short-lived success, but the positive result of the Crusades was to reestablish links between the Europeans and those peoples of the Middle East who had preserved classical culture. By the time of the theologian and scholar Aquinas (1225–1274), the works of classical Greece could be read again, although the real revival of classical culture took place two centuries later in the period known as the Renaissance—the rebirth. To recapture the spirit of the Middle Ages in a sentence or two is impossible, but it is during this period that the traditional structure of Western society emerges: A monarch is in charge of aristocrats who in turn both defend and are paid tribute to by an agricultural peasantry. In spiritual matters all these groups acknowledge the authority of the Church. Individual countries, often unified by a common language, begin to emerge, and cities became places where trade was carried out and where a new class, the merchant class, began to achieve power and status.

A number of isolated incidents brought about the end of the Middle Ages and the beginning of modern Europe. In 1453 Constantinople was conquered by the Turks, thus making it difficult for Europe to trade with the Far East. The result was that explorers moved out in the opposite direction, to the Atlantic; the most famous consequence was Columbus's sighting the West Indies in 1492. Gunpowder was devised during the fifteenth century, thus changing the nature of warfare, and the invention of printing allowed the propagation not only of Christian doctrine but also of classical learning and of individual opinion. By 1500 the Renaissance is associated with the rediscovery of secular scholarship and the burgeoning of art and architecture, particularly in Italy; by 1517, in Germany, Martin Luther was beginning to argue against some of the abuses of the Church. The Reformation is the name given to the movement whereby the protesters following Luther—that is, the Protestants—broke away from traditional Catholicism.

The common characteristic of both the Renaissance and the Reformation is the stress on individualism, but it must not be forgotten that the Church in the sixteenth century was still a powerful force and fought vigorously both against the propagation of secular science and the various new Christian sects who did not acknowledge the Catholic church as the arbiter of doctrine. The sixteenth century, therefore, is marked by fierce religious warfare throughout Europe, but it is also the century of Michelangelo,

Shakespeare, Rabelais, and Cervantes. The major scientific events of the century were Vesalius's contributions to anatomy and Copernicus's theory that the earth moved round the sun and not vice versa. In the New World, the Spanish and Portuguese settled in and colonized California and Central and South America; on the other side of North America the coastline was known but there was little in the way of permanent settlement.

The seventeenth century is a turning point in Western history in several ways. First, there was an enormous growth of science, particularly in physics, during this period; the three major figures were Galileo, Harvey, and Newton. Second, in northern Europe, where the Catholic church was less powerful, there was a growth in free-thinking and religious toleration, an attitude that spread to many of the newly founded colonies in North America. Third, the British rebelled against the more tyrannical aspects of monarchy, and the subsequent civil war (1642–1653) led to a rule by Cromwell's military junta, later replaced by a system of checks and balances between king and Parliament that was the forerunner of many democratic governments today. Fourth, we see France at the pinnacle of power; Paris became the literary and cultural capital of Europe. However, all was not necessarily progress: The Thirty Years' War, a confused religious war, brought devastation to Germany during the first half of the century; French Protestants (Huguenots) were persecuted in France during the second half of the century and many emigrated; slavery was an institution throughout the Americas.

The eighteenth century is frequently called the Age of Enlightenment. The intellectual heroes in Paris were Newton and the philosopher Locke. Knowledge of biology and chemistry was greatly advanced, particularly when oxygen was discovered. The courts in Prussia, Austria, and Russia imitated those of France and were centers of new nationalistic movements. Nevertheless, it was also the period of three great revolutions, one social and two political. First, the Industrial Revolution began in Britain and in America. Machines were invented that could do the work of many laborers and manufacture goods of consistent quality. Factories took the place of farms, and colonization in America, Australia, and elsewhere took a new turn when it was realized that raw products could be cheaply sent back to the home country and there turned into finished goods by machines. It was in this context that Adam Smith wrote one of the pioneering economic texts, *The Wealth of Nations* (1776), in which free capitalism, with little government intervention, was advocated. Second, the settlers in the North American colonies rebelled against the laws emanating from Britain itself: At Philadelphia in 1776 a meeting of deputies from the few states then founded issued the Declaration of Independence; the American Revolution finished in 1783 with the United States being recognized as a nation in its own right.

Finally, the tyrannical power of the French monarchy became intolerable to the working classes, and in 1789 the French Revolution broke out.