Psychological Perspectives on Human Development

James S. Fleming
Psychological Perspectives on Human Development

James S. Fleming
For Anita
And
for my students
Preface

A book of mine is always a matter of fate. There is something unpredictable about the process of writing, and I cannot prescribe for myself any predetermined course.

—C. G. Jung

What You Should Know About this Text and the Author

The future cannot be divorced from the past, nor can the theorist cannot be divorced from the theory. My goal is to prepare students with a solid background in the major theoretical perspectives that have guided research in human development for decades. As a student of the history of psychology I’m happy to include quotations from Robert Woodworth from the 1920s, or E. G. Boring in 1950, when I deem them to be of value. But this book is not merely a recap of past events, but also very recent research, especially from the areas of neuroscience and evolutionary psychology, which constitute major parts of the text.

I see this book not only as essential preparation for further studies in developmental science but also as a useful introduction to the field of psychology generally. As such I’ve included chapters on research methods and, in my mind most importantly, on some of the philosophical thought that underlies and guides research. To be sure, this is not a course in philosophy but it seemed to me that a brief introduction to these ideas would serve to facilitate an understanding of where the different theorists are “coming from.”

As with Jung (per the above quotation) I fail in the first principle of textbook writing: I follow no outline. I do not, for example, force each chapter into a common format. Rather, I try instead to follow the flow of creative energy from within. My aim is to tell an interesting story, not merely to relate facts. I try assiduously to avoid “academese.” In the interest of flow I like to begin a chapter with something designed to immediately engage the reader. With Freud, for example, I begin with the Oedipus complex, and the Oedipus myth. And I introduce the chapter on traits with showing how the seven dwarves illustrate the cardinal traits of Gordon Allport.
And in the interest of sharing with the reader I occasionally place myself in the narrative. I believe the personal and subjective can be helpful; if my experiences can illustrate some principle in the text then so be it. Is it possible for an academically oriented person to write on topics such as these and maintain strict objectivity? I doubt it of anyone’s narration. So although I try to present each perspective fairly, close readers may detect those perspectives that are dearer to my heart than others. I discuss one of my own dreams and my subsequent interpretation in the chapter on Jung, and I also present a drawing of what I perceive to be, in Jungian terms, my “shadow.” In the chapter on end of life, as well as in the epilogue, I include some poetry. And the chapter on existentialism is written as a memoir, entirely in the first person. My own opinion concerning the future of psychology is revealed at the end of that chapter. And in the epilogue “After Words” I discuss my own development from my earliest years to show how some of the theoretical ideas discussed in the main chapters can be applied to an individual case. Among my goals is to open the door to more literary, artistic, and creative richness in the field of academic psychology.

We must never abandon reason and good science. But what many people fail to realize is how emotional and aesthetic understandings contribute to psychology and therefore to our humanity; to the totality of our being. I believe these have been neglected far too long by far too many. I believe in the balanced life, and I honor above all the generalists. I am all for STEM education (science, technology, engineering, mathematics) but I fear that we are in danger of losing when history, literature, music, and the arts, are neglected in return (see: Fareed Zakaria’s, 2016 “In Defense of a Liberal Education”). More thoughts on this can be found in my final chapter.

What Else is Different about this Book?

Two chapters, one on the development of intelligence, another on the development of traits, are not covered in other “theories of development” texts, and Jung is considered briefly in only one of them of which I’m aware. Jung has always been
controversial (see remarks on this in the Jung chapter), but in my judgment, he deserves more attention—as a self-psychologist along with humanists such as Rogers and Maslow, as well as a developmentalist, rather than as just another kind of psychoanalyst in the tradition of Freud. I consider the role of the self in psychology deserving of greater consideration than it is often given, and I stress the role of the self in development in several places in this book. Also, while not unique to this text, evolutionary influences on development are often given little attention in other books.

And: A brief history of psychology opens the chapter on traditional learning theory in order to provide a context for the rise of behaviorism. Also, a “smattering of psychometrics” is presented in the chapter on development of traits. So: philosophy, research methods, intelligence, traits, the self, evolution, history of psychology, and psychometrics; if this sounds like a lot to pack into the 500-plus pages of one “theories” book, instructors have the option, in fact the obligation, to choose those topics of most relevance to their course syllabi and learning goals. With this in mind I hope you are intrigued!

Acknowledgments

I thank colleagues Dennis Abry, Al Garbagnati, Glenn Gifford, Linda Gilbert, Adele Gottfried, Herb Hilbig, and Kathryn Watson; and students Chantille Fair, Stacie Flajnik, Leila Inman, and Jessi Taylor, for their helpful suggestions and comments on various sections of this text. I give a special thank you to Siri Hustvedt for some very helpful suggestions; and to Anita Fleming for close readings.

I am also indebted to my fellow textbook writers on development for their fine work and for their influences on me. I have quoted and credited many of them. For example, I found Patricia Miller’s extensive work in cognitive development extremely helpful. I’ve relied heavily on Edward Hoffman’s writings on Maslow for the chapter on humanistic psychology. I should also mention Laura Berk, Kathleen Stassen Berger, David Buss, William Crain, Alison Gopnik, Jerome Kagan, Richard
Lerner, Mary Rothbard, and of course, many others too numerous to list here.

J. S. Fleming
James Fleming, Prescott, Arizona, 2020
# Contents

Preface vi

### Part I: Foundations

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Human Development</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Scientific and Theoretical Perspectives on Human Development</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Philosophical Perspectives on Human Development</td>
<td>47</td>
</tr>
</tbody>
</table>

### Part II: Development of Cognition and Morality

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Piaget and Cognitive Development</td>
<td>73</td>
</tr>
<tr>
<td>5</td>
<td>Vygotsky’s Socio-Cultural Theory</td>
<td>107</td>
</tr>
<tr>
<td>6</td>
<td>The Development of Intelligence</td>
<td>121</td>
</tr>
<tr>
<td>7</td>
<td>Piaget, Kohlberg, Gilligan,, and Others on Moral Development</td>
<td>151</td>
</tr>
</tbody>
</table>

### Part III: Personality and Social Development: Psychodynamic Perspective

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Freud and the Psychodynamic Approach</td>
<td>179</td>
</tr>
<tr>
<td>9</td>
<td>Erikson’s Psychosocial Development Stages</td>
<td>225</td>
</tr>
</tbody>
</table>

### Part IV: Personality and Social Development Learning and Social-Cognitive Development

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Classical Learning Theory: Thorndike, Pavlov, Watson, and Skinner</td>
<td>253</td>
</tr>
<tr>
<td>11</td>
<td>Bandura: Social-Cognitive Learning Theory</td>
<td>277</td>
</tr>
</tbody>
</table>
Part V: Personality and Social Development: Ethology and Attachment Theory

12 Ethology, Sociobiology, and Evolutionary Psychology 303
13 Attachment Theory and Related Research on Mother-Child Bonding: Bowlby, Ainsworth, and Harlow 327

Part VI: Personality and Social Development Traits, Types, and Temperament Perspective

14 Traits, Types, and Temperament in Personality Development 345

Part VII: Development of Self: Analytic, Humanistic, and Existential Perspectives

15 Jung’s Analytic Psychology and the Self 379
16 The Humanists: Maslow and Rogers 411
17 Existentialism from the Age of Anxiety to the Present 447

Part VIII: Late Life and End of Life Issues in Human Development

18 Late Life and End of Life Issues 475

After Words: A Personal Epilogue 493

References 517

About the Author 551
Part I:

Foundations
1. Introduction to Human Development

Life is a journey, not a destination.

–Unknown origin

From little acorns do mighty oaks grow.

–American folk saying

Developmental Science: Its Definition and Scope

The Field of Human Development

Visualize a third-grade classroom demonstration in natural science: tiny caterpillars are placed in a cardboard box with deliciously ripe and tender green leaves for them to feast upon. In time, as the children observe them, each insect larva spins itself into the form of a chrysalis. The children begin to anticipate the special event, when the butterflies will emerge. Then miraculously one day the beautiful butterflies struggle, then break free of their natural bonds, to the delight of these young children.

This illustration of the wonders of nature can be quite dramatic. Such a metamorphosis is part of nature’s grand design in the development of this organism’s lifespan. Apart from the mythological Cinderella, who is transformed by her fairy godmother into a lovely maiden – suddenly she’s “princess material” – transformations in the course of human development seem far less dramatic by comparison. Yet there are indeed fantastic transformations that occur to the developing child in the womb, which most of us never really see. First, the fertilized cell or zygote, multiplies itself into a blastocyst – nothing more than a tiny, round ball of undifferentiated cells – which proceeds to implant itself into the lining of the uterus. This small mass begins to take a different (somewhat reptilian) shape as an embryo after only three to four weeks. Indeed, for a brief time the embryo resembles a fish, then a tadpole, as though reviving its evolutionary origins as “ontogeny recapitulates phylogeny” (as students are taught in basic biology courses). But then the shape begins to become more
recognizably human, as tissues of the developing heart, brain, digestive tract, and bones begin to form.

At some point along the way – roughly nine to twelve weeks – the embryo becomes the fetus, which looks increasingly like a little human being. And so the physical development proceeds over a period of nine months. Finally, at the end of the third trimester, voila! The fully-formed child is born; the girl or boy is perfectly pre-configured as a little woman or man.

Well, not quite a perfect match just yet. The head, for instance, is much larger in proportion to the body than it is for older children and adults, and of course, there’s all of that baby fat. But the round face, big eyes, and tiny but well-formed features (ears, fingers, toes), makes the infant look cuddly, vulnerable, and irresistible to the wonder-struck parents. What lies ahead for our little Maria or William? The rest of her or his life, one may suppose, may it be a long and happy one!

Developmental science is the scientific study of human development: of the ways in which people grow and develop (change or remain constant) throughout the lifespan. The human lifespan ranges from conception through old age, and finally to that last stage of life, which is death itself. By growth is meant not simply the physical changes that people undergo throughout their years of life, but also the kinds of psychological changes that accompany the aging process.

When the author was a young college student, human development was largely centered on the study of childhood and adolescence. Whereas college students once commonly enrolled in courses with names like “Child Psychology” or “Child Development,” these courses are now much more likely to have titles like “Human Growth and Development” or simply “Lifespan Development.” Yes, there were also courses that focused on aging and gerontology, but by and large this left open the entire span of existence between young adulthood and old age.

Actually, it would be not be accurate to say that the entire lifespan was completely ignored in the past by psychologists. Erik Erikson’s theory of personality development, encompassing the span from birth to old age, was well received when his book Childhood and Society
was originally published in 1950 (Erikson, 1950/1985). But increasingly since that time, developmental scientists have come to see the importance of viewing people’s lives from the standpoint of their continuity as well as from the kinds of changes that take place in the course of a lifetime. The people that we become are the products of our heredity and our environments, and perhaps even more crucially, of the interactions between the two. An old proverb recognizes the intergenerational part of continuity in stating that “the child is the father of the man” (and by implication, “the mother of the woman,” as well).

The field of developmental science today is multidisciplinary and in many cases interdisciplinary as well (Lerner, 2006). People from many fields contribute to the study of human growth and development. These fields include (but are not necessarily limited to) biologists, health scientists, medical researchers, ethologists, linguists, anthropologists, sociologists, educators, family studies professionals, cognitive scientists, and psychologists. Although the present text views human development from a psychological perspective (or more accurately, from several psychological perspectives), it is a mistake to identify this field only with psychology. Many contributions to the psychological understanding of psychological development have originated from other fields. Of those theorists given places of prominence in this book, consider that Jean Piaget was not a psychologist by training but rather a biologist with an interest in logic and epistemology. Sigmund Freud and C. G. Jung were medical doctors when psychiatry was a new field; Freud’s own specialty was neurology. And the ethologists Konrad Lorenz and Niko Tinbergen were, respectively, a zoologist and a biologist by training.

“If a person sticks to the straight-and-narrow concerns of a single field or a field within a field, he will pose very different questions and come up with different answers from the person who roams about in various disciplines…” (Hustvedt, 2016, p. 332.)
Seeing the Continuity in Your Life: 
An Exercise in Imagination

Close your eyes for a moment. Imagine that you are taking a walk down a very long and winding country trail with lots of wonderful sights to see along the way. You’ve walked quite a ways so far, but there is still a much longer way to go, and lots more yet to be seen.

Now imagine you are watching yourself from afar. Become an outside observer in a hovercraft that is moving higher and higher above – and farther and farther away – until you can see yourself and the entire path from way up on high. Perceive yourself now more objectively as a lone walker – just a tiny speck somewhere on the way down this path.

This walk is an analogy for your life, and you are being asked to take a look at where you are right now from a distant point outside of yourself. From this exalted vantage point you can see where you’ve been, and also to some degree where you are headed.

How far can you remember back into the history of your “path of life”? Try to go there now. Perhaps you were a child in a crib, or more likely (most of us can’t remember back that far) you can visualize some significant event that happened as a very young child. Perhaps it was a birthday party, or time you were sick and bedridden, or you were on a trip away from home. Maybe it was a time of great joy, or of great sorrow. Or perhaps you simply have an image of yourself in a much more mundane setting – a home in which you lived with your family, a pet cat or dog, an older or younger brother or sister. Can you really remember yourself as you once were, and do you feel a connection or continuity between that point of memory and your present life?

Draw back from this reverie now and think about where you are going. If you are reading this book then you are probably a college student. But wherever you are, ask why are you exactly here, how did you get here, and where you will be going next? When you were that little girl or boy in your imaginative fantasy, did you ever believe that
you would be at *this* particular point on this particular trail of life? Where do you expect to be ten years from now, and what do you think you will have accomplished by then?

Often people get so caught up in life’s day to day routines that they fail to see the big picture – who they are, where they’ve been, and where they are going. As the introductory quote to this chapter says, life is a journey, not a destination. It’s very easy to forget that this is *your* life – if it were a motion picture, you and no one else would be the star! And in this sense, we are all “starring” in the adventure that is our own life. Does thinking about this adventure by putting yourself in this picture give you a new perspective? Does this give you a good feeling?

As you proceed through this book and course, try to maintain such an open perspective about yourself. What can you learn that is of personal value from each of the perspectives that you encounter? Can you apply these perspectives to your own life?

**Developmental Psychology and Developmental Science.**

*Developmental psychologists* are psychologists who also happen to be developmental scientists. Once synonymous with the field of human development, the term *developmental psychology* may now seem a bit limiting, given the diverse nature of the field as discussed above (also see Lerner, 2006). However, the term is still useful in denoting a developmental scientist whose background and experience are more specifically tied to the field of psychology. (Most, though by no means all, of the theories and perspectives considered in this text originated from the field of psychology; hence the title *Psychological Perspectives.)*

**What Developmental Scientists Study.** Developmental scientists study human growth and development processes and the factors that influence them. These processes encompass the following lines in the study of development:
1. **Normative development:** Most developmental processes are thought to characterize all or at least most people. For example, all infants exhibit reflexive sucking responses. All babies begin to smile at the sight of human faces, beginning at about one month of age. And some theories posit that most children develop their sexual identity (as boy or girl; female or male) through identification with their same-sex parent between the ages of three and six years.

(The concept of developmental stages is implicit in the notion of normative development, though not all developmental scientists accept the notion of clear-cut stages. Differing views on stages of development are considered at length in the next chapter.)

2. **Abnormal development:** Life doesn’t always unfold in the same manner for all people. Things can go wrong, sometimes drastically so, for the developing child or adult. For example, the emotional bond between mother (or mother surrogate) and child are considered very important by developmental theorists. When such bonding is absent or incomplete and the child’s basic nurturing and comfort needs are not met (as in some orphanage environments), the emotional damage caused by the neglect can negatively impact the child’s personality. This neglect can make the child aloof and unreceptive, resulting in later difficulties in social and emotional adjustment.

3. **Individual differences in developmental trajectories:** Some children seem different in temperament almost from the time of birth. For example, some are relaxed and trusting, others anxious and irritable. Differences in personality traits also can be influenced by life’s circumstances. Parents, peers, and teachers can influence these circumstances, in either positive or negative ways. Developmental scientists are therefore quite interested in the ways in which different parenting and teaching styles affect children’s development, or more generally, in why some people develop differently from others.
4. **Group differences in development:** Developmental scientists are concerned with social and cultural variations that can influence development. For example, how are children raised in rural Mexico different from those in urban Shanghai? And what are the factors that affect these differences in development? In what ways do girls and boys (or men and women) differ in their developmental paths? Or, how does the course of development differ for people from different social classes within the same culture?

**Diversity of the Individual in Context.** As seen from the above list there are clearly many facets to the study of human development. In the past many psychologists saw the field of psychology (including human development) as the study of the effects of the environment on behavior whereas the newer paradigm is much broader: the focus of developmental science is now on the *individual within context* (cf., the Overton, 2006, model). The field is much richer and much broader today. It encompasses the study of the developing individual (including his/her perceptions, attitudes, memories, inner states and the like) in relation to her/his life context, including the socio-cultural environment, the kinds of influential situations he/she is likely to be exposed to (e.g., peer group; significant life events), and stage of development (stage theories are discussed more fully in the next chapter). The relation of the individual to the context can be represented by the double arrow:

\[
\text{individual} \leftrightarrow \text{context}
\]

(Lerner, 2006), which stresses the interactive (or bidirectional) relationship of the person with this contextual matrix and the mutual influence they have on one another. Thus today the person is given a lot more credit than in the past; she or he is no longer viewed as a passive agent to whom “development happens” in the course of time, but as an active participant in his/her own development.
The Major Phases of Life:
Significance of the Divisions

Most developmental scientists agree that the human lifespan can be divided into distinct phases corresponding roughly to particular ages. The scheme usually looks something like this:

- Prenatal life (conception to birth)
- Infancy (approximately the first six months of life)
- Toddlerhood (about six months to 2 years)
- Early childhood (about 3 to 6 or 7 years)
- Middle childhood (about 6 or 7 to about 11 or 12)
- Adolescence (about 11 or 12 to about 20)
- Early adulthood (about 21 to 35 or 40)
- Middle adulthood, or middle age (about 35 - 40 to about 60 - 65)
- Late adulthood (about 60 or 65 until death)

Part of the reason for the lack of precision on the age ranges is that people develop and mature at different paces. This is especially true of the later stages: early through late adulthood. Different theorists who discuss stages of development use somewhat different age delineations.

Keep in mind that developmental science is a relatively new field. Indeed, the idea that children were in some ways quite different from adults itself appears to be relatively new. According to some accounts, in Europe during the middle ages children were regarded as merely “small adults” who were apprenticed or sent to work in the fields at around ages six or seven, and by about age twelve they assumed adult responsibilities (Ariés, 1960) – though this idea remains speculative and controversial (Orme, 2003). Still, the concept of identifiable stages or phases of development may be a fairly recent idea. But are such divisions arbitrary a classificatory convenience or can they be justified on scientific grounds?

One way to try to answer this question is to ask whether there are clear biological or psychological markers – neurological or behavioral
landmarks, so to speak – that occur at about these times that are universal (transcend all cultures). Developmental scientists have indeed found such markers, especially for the earlier periods. There are close correspondences in demarcating major periods of life up through adulthood that are found in both the cognitive perspective of Jean Piaget and in the psychodynamic perspective of Sigmund Freud, as will be seen in subsequent chapters. Erik Erikson further extended Freud’s developmental stages for personality development beyond adolescence, throughout the entire lifespan.

It is true, however, that in some agrarian cultures today, adulthood still begins at puberty. In these cultures boys assume adult working roles while in their teen years, and girls marry shortly after puberty. Life may be hard, and few people may actually live beyond their middle years – and even then, only the most fortunate survive.

Consider, too, that in the U. S. culture, better health care and lifestyle practices continues to extend youthfulness into later years. Many so-called baby boomers now object to defining late adulthood as beginning at “only” age sixty or sixty-five!

Perhaps the stages of life following puberty are therefore somewhat arbitrary. Nevertheless, it still makes sense to think of adulthood as having three phases in terms of psychological development, although pinning them down to particular age ranges is not an easy task. Try to think of someone you know who is still very young at age seventy-five, and then see if you can think of someone who seems prematurely old at around age thirty-five or forty!

**Major Areas of Study for Developmental Science**

Developmental scientists have different ideas about how to define and organize major areas of study, but often textbooks are divided into sections with titles pertaining to (a) physical (or biosocial) development, (b) cognitive development, and (c) social-emotional (or personality) development. These divisions tend to be somewhat arbitrary and overlapping. All of these aspects of development include some degree of social and emotional development, for example, and development of children’s moral understanding can be included with
either cognition – because level of moral understanding depends so much on stages of cognitive development – or it can just as readily fit with social-emotional development.

Per its title, the present text is concerned mainly with psychological (as opposed to physical) development. Thus, this book is not so much concerned with topics such as when the infant gets her first baby teeth, or with development of reproductive organs at puberty. Such physical facets of development, where they are encountered, are more an incidental feature of this book than a central one; however, development of the brain and nervous system are especially important for psychological development, and these are considered to some degree within the context of other topics.

For conceptual purposes, the author has chosen to divide this book into eight major parts. Within each of these major sections, one or more chapters are devoted to more specific aspects of development. The following, then, is a preview of these topics.

Preview of the Remaining Chapters

Part I: Foundations

The three foundations chapters (including the present one) provide an introduction to the field of human development: its definition and scope; the scientific approach to development and controversial issues; and philosophical concepts which implicitly or explicitly underlie the various perspectives on development.

Chapter 2: Scientific and Theoretical Perspectives on Human Development. This chapter discusses the science of human development. It includes a brief overview of research methods which are useful in developmental science and discusses the importance of theory in science. Classic issues (false dichotomies) within the field, such as nature/nurture and continuous versus discrete developmental processes are also introduced.

Chapter 3: The Nature of Human Nature: Philosophical Perspectives on Human Development. In order to critically examine the assumptions underlying the various perspectives encountered in
this book, some important philosophical concepts are introduced, ranging historically from Plato to the existentialists. These encompass the realms of epistemology, metaphysics, and ethics. Of primary concern for evaluating later theories and theorists are philosophical conceptions of morality and of the “nature of human nature.”

**Part II: Development of Cognition and Morality**

Cognition refers to thought and reasoning processes. Two broad traditions are considered: first cognitive development, beginning with Piaget and Vygotsky, both of whom looked the ways in which children learn to think and solve problems at different stages of development. Piaget studied children’s learning through observation and questioning. Vygosky was especially concerned with sociocultural influences on cognitive development. In contrast, studies of the development of intelligence evolved within the psychometric tradition, which focused more on measurement of intellectual abilities and intelligence testing – though later theorists such as Gardner and Sternberg contributed contrasting perspectives.

The development of morality is also included in this section as children’s conceptions of morality are quite closely tied to cognitive development.

**Chapter 4 – Piaget and Cognition Development.** Cognitive development is the study of the ways in which children learn to think and reason, per the pioneering work of Jean Piaget and others who followed in Piaget’s footsteps. Piaget’s theories were derived from his extensive observations of children solving problems as they interacted with their environments and in play.

**Chapter 5 – Vygotsky: Societal and Familial Influences on Cognitive Development.** Lev Vygotsky was particularly concerned with sociocultural factors in cognitive development, though like Piaget, he was also interested in children’s natural learning. He considered as well the important participatory roles of parents, peers, and teachers in fostering children’s learning and development.
Chapter 6 – Development of Human Intelligence. Many psychologists have contributed to the understanding of the measurement and development of intelligence, beginning with Alfred Binet and Theodore Simon’s development of the first intelligence test. Controversies over the definition and meaning of intelligence continue to the present day; but later theorists such as Sternberg and Gardner rejected the (mainly) statistical approaches favored by the earlier theorists. Cultural, biological, and other environmental influences on the development of intelligence are examined.

Chapter 7 -- Piaget, Kohlberg, and Others on Moral Development. Psychologists study the ways in which moral understanding and moral behavior develop; first in young children, then in teens and adults. But one cannot understand moral development apart from an understanding of the dynamics of cognitive development, as Jean Piaget demonstrated early on in his work on the subject. Piaget’s work on moral understanding was extended by Lawrence Kohlberg and others. Although the development of moral understanding and moral actions may have some universal elements, it is equally important to see where and how these may differ from one culture to another, or to classes and groups within a given culture.

Carol Gilligan’s contribution to the psychology of caring and justice is also considered in this chapter, as are psychoanalytic and social-cognitive perspectives on moral development, per the work of Sigmund Freud and Albert Bandura, respectively. (However, the latter two are treated more extensively in Chapters 8 and 11, respectively.)

Part III: Development of Personality: Psychodynamic Perspective
The psychodynamic approach to personality, which includes stages of personality development, originated with Sigmund Freud. Freud and other early theorists are considered in Chapter 8. Erikson’s extensions to Freud’s work, as well as his unique contributions, are discussed in Chapter 9.
Chapter 8 – Freud and the Psychodynamic Approach.
Personality development includes both the study of normative and abnormal processes, per the stages of development proposed by Sigmund Freud in the psychodynamic tradition. Freud considered both, but stressed the kinds of abnormalities that can occur when certain basic needs are not met. His theory is a psychosexual one, as he believed that each stage of human development involved erotic components and conflicts (though his definition of sex was quite broad). Freud is known as the originator of psychoanalysis, which refers both to theory and a method of psychotherapy.

Chapter 9 – Erikson’s Psychosocial Developmental Stages.
Erikson, while working in the Freudian psychodynamic tradition, stressed social factors to a much greater extent than did Freud, and he extended the stages of development through the entire lifespan. He also brought a cross-cultural perspective to the study of personality development.

Part IV: Development of Personality: Learning and Cognitive-Social Perspectives
How children develop – both socially and cognitively – depends to a great extent on how they learn. Much of the early research on learning – as well as psychology in general – stressed the role of classical and operant conditioning. But later theorists, Albert Bandura and others, viewed the traditional learning paradigm as too narrow in focusing only on observable behavior. They broadened the ideas on learning by including socialization and cognitive (thinking) processes as important factors in learning and in development.

Chapter 10 – Classical Learning Theory: Pavlov, Thorndike, Watson, and Skinner. The field of psychology as we know it today would not exist without the enormous contribution from the study of human behavior by classical learning theorists (including researchers like Ivan Pavlov, Edward L. Thorndike, John B. Watson, and B. F. Skinner). Watson and later Skinner applied principles of classical and operant conditioning, developed by Pavlov and Thorndike, respectively, in attempting to explain all of human behavior, including
human development. This chapter also includes a brief, selective history of trends in psychological thought in order to place the behaviorist movement in perspective.

**Chapter 11 – Social Cognitive Learning Theory: Bandura and Others.** It was only by tradition in American psychology that the studies of behavioral aspects of development were made separate from social and cognitive aspects. Albert Bandura was (and is) a pioneering figure in the transition from the more limited study of “pure” behavior to the wider field of study known variously as “social learning theory”, or “cognitive/behavioral psychology”, or “cognitive/social/behavioral psychology.” These equivalent terms reflect current realities within the field. Although cognitive, social, and behavioral psychology seem like conceptually distinct areas, they are today enjoined to such a degree that separating them becomes a rather artificial exercise.

**Part V: Development of Personality: Ethology, Sociobiology, Evolutionary and Attachment Theory Perspectives**

Not all animal psychology involves laboratory experiments. The ethologists demonstrated that the study of different species in their natural environments would yield a new richness of understanding of both development and behavior, with evolutionary implications for humans as well as for animals. Combining the insights of the ethologists with those of classic psychoanalysis led later theorists to their research on the importance of the attachment bonds between infants and their mothers.

**Chapter 12 – Ethology, Sociobiology, and Evolutionary Psychology.** In studying species specific behaviors and critical periods of development, the ethologists’ (most notably Konrad Lorenz and Niko Tinbergen) observations of chicks, ducks, and various species of fish and mammals, gave new impetus to biological foundations of behavioral development. Their studies of imprinting and critical periods for learning in animal and bird species, based in evolutionary concepts, also spurred thinking about human development.
Ethology, sociobiology, and evolutionary psychology each have a critical common element, which is the influence of Charles Darwin on understanding the adaptive nature of behavior. These approaches emphasize the “nature” side of development to a marked, though not exclusive, degree.

Chapter 13 – Attachment Theory: Bowlby, Ainsworth, and Harlow. John Bowbly and Margaret Ainsworth emphasized the crucial role of infant-parent bonding, especially with the mother, and combined important insights from psychodynamic theory with those of the ethologists. Both studied the importance of separation anxiety in the infant on development and the importance of attachment in the mother-child bond on later development.

In the context of a more traditional, laboratory study of animal behavior, Harlow demonstrated the need for what he called “contact comfort,” which to many people is simply love.

Part VI: Development of Personality: Trait, Type, and Temperament Perspective

Some theorists approach personality from the study of human traits or individual differences in patterns of behavior. Most (though not all) trait researchers used personality inventories and statistical analysis to identify major aspects of personality that differentiate people. Temperament refers to personality characteristics that are present at birth, or shortly thereafter. A continuing controversy exists over the extent to which personality traits are inherited to at least some extent, versus being largely shaped by experience.

Chapter 14 – Traits, Types, and Temperament in Personality Development. The study of personality encompasses the study of individual differences in personality traits. Much of this chapter is devoted to psychometric and theoretical developments on the factors of personality, and some classical personality typologies are considered. Parental practices certainly influence development of personality traits, especially in the earliest years, but so do societal and cultural standards and practices. And it is now recognized that heredity as well can play a significant role.
Part VII: Development of the Self: Analytic, Humanistic, and Existential Psychology

The three basic approaches in this section have in common their concern with the development of the whole person or self. These focus somewhat more on development later in life than do most other approaches, though not to the exclusion of the earlier years.

Chapter 15 – Jung’s Analytic Psychology. In most textbooks a discussion of Jung’s system of analytic psychology is usually placed along with Freud, Erikson, and neo- and post-Freudians. Jung, like these others, stressed the dynamic role of the unconscious mind. His placement here, however, reflects the author’s view that Jung was more than anything a self-psychologist, but particularly within the context of psychological development. Jung’s major contributions to human development stressed self-development, but particularly from the middle years through old age.

Chapter 16 – The Humanists: Maslow and Rogers. The humanistic psychologists favor a phenomenological (experiential) perspective on development and the human need for self-actualization, or development of one’s fullest potential.

Chapter 17 – Existential Psychology: May and Others. As with the humanists, the existential psychologists took a phenomenological perspective on existence. The movement began more as a philosophical way of viewing the world than as a formalized system. The existentialists stressed being in the here and now and personal responsibility, and they applied this attitude or approach to psychotherapy. More recently the field of experimental existential psychology has evolved which brings a more scientific approach to this perspective, though these later existential psychologists are still concerned with how people cope with the basic problems of existence.
Part VIII: Late Life and End of Life Issues in Human Development

The final perspective consists of a single chapter on end of life issues.

**Chapter 18 – End of Life Issues.** The theoretical work of Elizabeth Kübler Ross is highlighted along with a discussion of practical ways that individuals and families can help to cope with this final stage of life. Though far from perfect as a stage theory, her ideas nevertheless provide useful guidelines for understanding certain emotions (denial, anger, and so forth), which are frequently encountered as coping mechanisms in the final stages of life. The role of hospice and palliative care is also considered in this chapter.

****
For Thought and Discussion

1. What is meant by the proverb that “the child is the father of the man.” Also consider what is meant when someone says that “The apple doesn’t fall far from the tree.” Do you agree with these sayings? Why or why not?

2. Class activity: Per the exercise on “Seeing the Continuity in Your Life” spend 15 – 20 minutes writing down some of your childhood memories. Try using one or more of these topics as a stimulus to share with the class:
   a. A special event, such as a birthday party, holiday, or trip.
   b. A traumatic event, such as an illness or hurt.
   c. An example of “sibling rivalry” between yourself and a brother or sister.
   d. Memories of a favorite pet.
   e. Trouble with Mom or Dad.
   f. Memories of someone you loved very much.
   g. A special place where you played by yourself or with other children.

3. As noted, attempting to delineate stages of development is always somewhat arbitrary. This is partly because people develop and mature at different rates. How long does it take to really “grow up” in our society? Think of yourself or others you may know as concrete examples. How do you think maturation to adulthood within our culture compares with other cultures?

4. Do you think that developmental scientists should be advocates for children’s safety and protection? (Note that this can be seen as part of a broader question; namely, is science “values free”?)

5. Along similar lines, to what extent do you think that developmental scientists should promote “positive development,” or interventions that favor optimizing growth as they understand it? (Examples might include drug use prevention programs, better physical care for the elderly, and so forth.) Might ideas concerning the meaning of positive development differ from one culture to the next?
2. Scientific and Theoretic Perspectives on Human Development

To raise new questions, new possibilities, to regard old questions from a new angle, requires creative imagination and marks real advances in science.

—Albert Einstein

The Scientific Approach to Human Development

A Research Question Worth Pursuing?

It appears that the Internet and other computer-based information sources may replace printed media such as newspapers and magazines as the primary outlets for news and information. Perhaps these will replace books like this one as well (or at least provide an alternative way to access them). Encyclopedias, such as the *Encyclopedia Britannica* (or *Britannica* for short) are now available in CD ROM format, and dictionaries can be found online (e.g., dictionary.com). Obviously, the newer media will impact education and therefore children’s learning and development – they already have, and will do so at an even greater rate in the future.

What is interesting is the ways in which technology makes information not only more accessible but cheaper as well. One example is *Wikipedia*, the free online encyclopedia. (A “wiki” is a web site that allows people to add to or edit the content collaboratively).

A study in the journal *Nature* (Giles, 2005) compared selected scientific articles in *Britannica* and *Wikipedia* by sending these to anonymous but expert peer reviewers to check for errors in accuracy. Reviews were “blind” in that the experts were not told the source of the material they received. Only 8 major errors were found, four in Britannica and four in Wikipedia. Less serious errors concerning facts, omissions, or misleading statements were also found: 162 for *Wikipedia* as compared with 123 for *Britannica*. 
Perhaps the two surprises were (1) that both sources contained unacceptable errors, and (2) that Wikipedia was a surprisingly close competitor to Britannica in terms of overall accuracy and error rate. This is surprising because Britannica employs paid experts to contribute their specialized knowledge whereas contributors to Wikipedia are not paid.

The study was limited in scope and far from definitive. As the editors of Britannica noted, Wikipedia could use some serious editing for style, structure, and readability. But more generally, this study raises interesting questions regarding the effectiveness of free online educational material versus professionally published educational resources. Using this as a starting point, it might be asked how one might plan and conduct a broad research program to test the relative effectiveness of each in a classroom setting. This topic will be used as an example in the subsequent discussion.

How Science Progresses

In the previous chapter developmental science was defined as the scientific study of human development, or the ways in which people change or remain constant throughout the lifespan. By including the word “science” in this definition, students should be assured that developmental science, like biology, geology, psychology, or physics, is scientific in the sense that its practitioners deal with observable events (i.e., is empirical), formulate and test hypotheses (testable assertions) about the relationships between events (e.g., motivating factors and behavior), and formulate theories that provide a comprehensive framework for understanding developmental phenomena. Hypotheses and theories can, at least in principle, be evaluated empirically – by using the scientific method. This method pertains to the objective way in which scientists pursue knowledge through research. The scientific process proceeds through a number of steps, which can include all of the following – though steps 2 through 5 are the most essential:
1. **Formulate research questions.**

   *Example:* In the information age, are traditional encyclopedias really useful for children’s learning, or do modern computer search engines render them obsolete?

2. **Formulate hypotheses** to address such general questions. Hypotheses are specific testable assertions.

   *Example:* Computers may be faster, but can also lead one to misleading or incorrect information; therefore, hypothesize that encyclopedia reading will produce more accurate results than using computer search engines.

3. **Create a research design** to test the hypotheses. (In this case an experimental design.)

   *Example:* Construct an experiment in which children are randomly assigned to conditions in which one group uses a computer search engine to research an assignment and the other uses a standard encyclopedia. Choose a limited topic, such as the war in North America which lasted from 1754 to 1763 (known in the U. S. as the French and Indian War; in the former French provinces of Canada [Ontario and Quebec] as the War of Conquest; and in Britain, France, and the rest of Canada as the Seven Year’s War).

4. **Gather and analyze data**, using appropriate measurement and statistical techniques for analysis.

   *Example:* Use an objective, multiple-choice test. Example question: In what Canadian city did the Battle of the Plains of Abraham take place? (a) Toronto, (b) Halifax, (c) Quebec City, (d) Montreal. Examine the results (average scores) between the two groups.

5. **Evaluate the results and make a decision.**
Example: State which method produces more accurate results, and whether or not results were in line with the hypothesis, based on sound statistical analysis of the observed mean difference in scores between the two groups.

6. Disseminate the results.

Example: Publish them in a professional journal.

7. Replicate the results under various conditions.

Examples: Repeat the experiment with students at different grade levels; with students in remedial classes. (Replication takes time! Many researchers and studies are ordinarily involved before results become well-accepted.)

8. Confirm, modify, or discard a theory on the basis of many related research studies.

Example: Perhaps this particular experiment partially confirms a broad theory concerning the way in which children learn.

The scientific method leads to results that are publicly verifiable (or at least verifiable by those trained in scientific procedures). Scientific conclusions do not involve conjecture, anecdote, or supposition – these may all be factors leading to the formulation of hypotheses and theories, but they are never factors in their acceptance.

The “Two Faces” of Developmental Science

Developmental science (like its ancestral field of psychology) does differ from most other scientific disciplines in this respect: it is both a social science (think of the areas of personality and social development) and a biological science (think of neuropsychology and brain development, or psychopharmacology, and the effects of neurotransmitters on behavior). Some people may think that this
dualistic aspect gives the field a kind of a “split personality” – but remember – both of these “faces” of developmental science in reality are scientific, in the sense just discussed, despite their differences in emphasis: developmental science overlaps both the social and biological domains.

Students with a basic social science background should also be familiar with research methods used by developmental scientists. If the reader is not comfortable with concepts in research design like “experimental versus observational studies,” “control and experimental groups,” “correlational research,” and “case study research,” then the following section on research designs should be reviewed before proceeding with the rest of the chapter.

**Qualitative and Quantitative Research**

The kinds of research questions asked by developmental scientists can be very broad, as when attempting to learn something new – say the attachment patterns (bonding of mother and chick) in a species of bird that has not been widely studied. A study such as this one might employ several field researchers whose job it is to observe and photograph the birds in their native habitat and take extensive notes on their behavior while nesting. Although the researchers may have some very general questions in mind – for instance, that in this species the mothers will spend lots of time feeding their hatchlings by regurgitating small insects or worms as do many other species – there are really no formal hypotheses being tested. Rather, the purpose is simply to discover something about the ways in which the mother bird and her chicks interact in their native environment. In other words, the research is *exploratory* or preliminary, perhaps, with a more rigorous testing of hypotheses to follow.

Other research questions have a very narrow focus, as in the case of testing a new drug treatment for attention deficit hyperactive disorder (ADHD) in teenagers. In this research a very specific hypothesis is tested, namely that the new drug will work more efficiently in reducing hyperactivity than existing ones, such as Ritalin, Adderall, or other currently used medications. It is further assumed that the outcome is measurable via a memory test for
learning in the presence of environmental noise. Specifically, it is predicted that those taking the newer drug will do better on the average on this test than both a control group taking no drug and a second group taking an existing drug.

The drug study probably strikes the reader as more quantitative because something is being precisely measured and tightly controlled. Though not everyone agrees that a distinction should be made between qualitative and quantitative research, some of the criteria offered to set them apart are given in Table 2.1. In that table ecological validity pertains to the ability to generalize the results of the study beyond the controlled conditions of a laboratory to the natural environment. Internal validity means that the results are essentially valid under the experimental conditions, but do not necessarily generalize beyond the lab (Campbell & Stanley, 1963).

From Table 2.1 it can be seen that some research studies do not fall clearly into either the qualitative side or the quantitative side of the table. For example, suppose researchers want to observe the behavior of young chimpanzees in their natural environment and compare their incidences of observed violence with their presumably more peaceful bonobo cousins, in which counts of aggressive and violent behavior are made, and the results are subjected to a statistical test. The study is indeed observational and naturalistic, but also quantitative and statistical. Thus the qualitative-quantitative differences can be thought of as lying on a continuum rather than as an either-or typology, though arguably closer to the qualitative than the quantitative side of the table for the above stated reasons. It must be acknowledged that the distinction is somewhat arbitrary. However, in the following discussion of research designs, true experiments as well as the three designs used to assess developmental changes will be considered “quantitative” (because all involve at least some kinds of controls as well as statistical tests), whereas other kinds of correlational research, naturalistic observation, case studies, and survey research will be considered “qualitative” – largely because of tradition, even if somewhat arbitrary.
Table 2.1
Distinctions Sometimes Made Between Qualitative and Quantitative Research Methods

<table>
<thead>
<tr>
<th>Qualitative is more often…</th>
<th>Quantitative is more often …</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploratory (to discover something new; induction)</td>
<td>Confirmatory (to verify existing hypotheses; deduction)</td>
</tr>
<tr>
<td>Observational</td>
<td>Experimental</td>
</tr>
<tr>
<td>Conducted in the natural environment (ecologically valid)</td>
<td>Conducted in a laboratory or other artificial or structured setting (internally valid)</td>
</tr>
<tr>
<td>Unobtrusive (no changes in the entities studied are attributable to the research)</td>
<td>Obtrusive (the entities studied are changed as a result of the research)</td>
</tr>
<tr>
<td>Lacking in statistical tests</td>
<td>Based on statistical tests</td>
</tr>
</tbody>
</table>

Research Designs for Developmental Science

The Concept of Correlation

In general terms, correlation refers to the degree of association between two variables. In other words, the occurrence of one tends to be accompanied by the occurrence of the other. As an example, sociologists look at measures of social class in terms of socioeconomic status (SES), which is partly a matter of affluence and wealth, but also partially depends on occupational status, educational attainment, area of residence, and other considerations. Some social scientists have found correlations between intelligence and SES. Could there be a causal connection between these two variables – for example, does being more intelligent lead to higher SES?
This question is not as easy to answer as it might seem at first glance. Beginning students have all no doubt learned the mantra that *correlation does not imply causation* – just because two variables are related does not necessarily imply that one must be the cause the other. Often, as in the present example, there are too many additional variables that can influence or moderate the association between the two variables of interest. Yes, it could be argued that more intelligent people are better suited for higher education and therefore (in most cases) they will earn more income than those with less education. But is it not also true that many otherwise intelligent people who live in conditions of poverty lack the opportunity for such upward mobility? Thus, being intelligent by itself may not be enough to bring about a better life.

But wait, should it be assumed that intelligence itself is a fixed, immutable characteristic of each person? As will be seen (Chapter 6) opinions about the nature of intelligence differ widely among psychologists. For these and other reasons, generalized assertions about the relationship between intelligence and SES are bound to be overly simplistic and misleading – there are far too many additional factors to take into account.

Statistically there are many methods for assessing correlation but the most common of these – what is usually referred to as a *correlation coefficient* – is most likely to be the *Pearson product-moment correlation*. In computing this coefficient, scores are paired for a sample of persons on two variables of interest – say scores on a standardized achievement test taking in high school and college grade-point average (GPA). The correlation coefficient is a numerical index that specifies the degree of relationship. If the relationship is perfect – as when there is a one-to-one correspondence between the two sets of measure (highest GPAs matching highest achievement test scores, and so on down to the lowest), then the coefficient achieves its maximum value of +1.0. This implies not only that the relative rankings of the pairs of scores are the same, but also that if the pairs of scores are plotted on an *X-Y scatterplot* (Fig. 2.1a), all pairs of points fall in a straight line (the assumption of linearity is required in computing correlation coefficients). A correlation coefficient of 0.0 obtains when there is no clear linear relationship.
between the two sets of scores, or in other words, the scatterplot shows a random appearing pattern (Fig. 2.1b).

Most correlations are not perfect. A correlation of +.80 is relatively large (much greater than 0.0, but not quite 1.0). This situation is illustrated in Fig. 2.1d, in which the point scatter resembles an upward slanting football.

Negative correlations are also sometimes found. A perfect negative correlation is -1.0. This value is found when every point falls on a straight line, but as scores on one variable increase (say hours of intense exercise) there is a corresponding decrease in the other (weight loss, for example). Again, perfect negative correlations are uncommon; a perfect negative correlation is illustrated in Fig. 2.1c.

To assess the predictable variation in one variable that is due to another statisticians use a squared correlation. For example, squaring a correlation of +.60 results in a value of +.36, and a correlation of -.701 when squared is about +.50. And of course +1.0 and -1.0 squared are both equal to +1.0. A detailed, statistical explanation of the concept of predictable variation is beyond the scope of the present discussion, but it should be noted that squared correlations are sometimes considered better measures of the size or magnitude of relationships than simple unsquared correlations – though unlike the raw correlation coefficient they tell nothing of the direction of the relationship – whether it is positive or negative (because squared values are always positive).

There are many useful research designs that are based on correlational methods. The most basic of these is the simple case in which measurements are taken over a group of people on two or more variables of interest and the correlations are reported. These are usually of limited value unless certain assumptions can be made about the causal nature of these relationships – which is not in itself a function of the correlation coefficients. But more sophisticated correlational designs also exist, as considered next.
Research Designs for Assessing Developmental Differences

There are certain kinds of research designs that apply especially to research in human development that merit review and/or introduction here; many of these tend to be correlational (as opposed to experimental) designs that are conducted over time, or in comparing groups at different stages of development. Some of these designs are used to study development as an unfolding process within individuals on variables of interest to human development over a period of weeks,
months, or even years. Although these designs are correlational, certain kinds of controls can nonetheless be introduced; but caution must still be exercised in drawing causal conclusions from them. Correlational designs used to study development include:

**Longitudinal research designs.** In longitudinal research designs, repeated measures on one or more attributes (e.g., self-concept and school achievement) are taken over an extended period of time. Measures are compared, and trends in growth are noted. The emphasis is on charting both the stability and change in the outcome measures over the time points selected (see Fig. 2.2a).

In the New York longitudinal study of temperament (discussed more fully in Chapter 14), children were observed from infancy to adulthood (Thomas & Chess, 1977). The purpose of this study was to identify different aspects of temperament (e.g., is a child nervous and irritable or cheerful) that appear early in infancy, then to discover how such temperamental indicators predict later adjustment, and how parenting practices and personalities of parents interact with temperament to influence the child’s development.

**Cross-sectional research designs.** Another type of research that is sometimes used in the study of development is called cross-sectional research. In a cross-sectional research design, the same measures are taken on intact groups of people (e.g., children in different grades) at the same, given time (e.g., the spring semester of the current year). (See Fig. 2.2b.) Longitudinal designs are considered superior to cross-sectional designs because with the latter, differences between groups may not be due only to psychological growth, they may also be due to some particular circumstances – or unique historical event – that happened somewhere between grades (Campbell & Stanley, 1963).

One may wonder, for instance, to what extent the attack on the World Trade Center in 2001 disrupted young children’s learning that year, but especially those who were closest to the event, or who lost family members or friends and acquaintances because of that attack.
Cross-sequential research designs. The ideal design for studying change over time in developmental science combines the two previously discussed approaches: This design calls for following several different cohorts (groups that differ by age) across a given time span – a number of years, for example. This hybrid is called cross-sequential research (Schaie, 1996). Keep in mind that this type of research is particularly difficult because it tracks many different groups for possibly long periods of time – it can get to be very expensive! But it also aids the researcher in “teasing out” differences due to actual growth from those that are due to presumed (or perhaps unknown) intervening circumstances, or to cohort differences (See Fig. 2.2c.)

Results from a well-known cross-sequential study used to assess mental abilities across the lifespan (Schaie’s Seattle Study) are discussed in Chapter 6. There it will be seen how cross-sectional studies misled researchers into falsely believing that there is a continuing gradual decline in mental functioning from late adolescence onward.

Other Useful Research Designs for Developmental Scientists. In addition to methods geared primarily for the study of change, other kinds of research designs are also useful to developmental psychologists. These include experimental studies, case studies, and observational studies.

Experimental research designs are at the heart of any science, including developmental science, and at the heart of experimental research are controls. These include the use of control groups, random assignment to experimental groups, and keeping extraneous conditions constant and equal (e.g., time of day; distractions from noise) in all groups. Though not uncommon, experiments are somewhat less commonly used in developmental science than in a field such as, say, social psychology, because of the obvious ethical concerns as well as expense considerations. For example, if a researcher believes that corporal punishment is
less effective than other means of parental control, it is hardly feasible for that researcher to randomly assign children to one group in which parents are told to spank their children and another in which other, non-physical forms of discipline are utilized, then to wait and see the long-term effects of these different approaches. (Parents already have their own ideas about disciplining their children.)

There are indeed opportunities for meaningful experiments with children, but not usually involving the long-term effects of different kinds of parenting or teaching practices. Instead, researchers are often left with correlational or observational or retrospective case studies as their chief options.

**Case studies and observational studies** both involve the intensive study of individuals. Case studies are usually based on clinical interviews, medical and psychosocial histories, or other kinds of data pertinent to the psychological development of a particular person. When case studies are constructed from memories (as perhaps from a patient in psychoanalysis) they are known as *retrospective studies*. *Observational studies* involve observations of people (or in some cases, animals) in their natural environments. Case studies and observational studies have both advantages and disadvantages.

Case studies can include massive amounts of data gathered on a single individual, whereas observational studies are especially useful for studying social interactions between two or more individuals. But both lack the kinds of controls that allow experimental researchers to test hypotheses and make causal attributions.

An example of an experimental design was given earlier which illustrated the steps in the scientific method in assessing the effects on learning of search engines versus traditional encyclopedias.
Figure 2.2: Some Research Designs for Developmental Psychology

- (A) Longitudinal Design: Average score for Cohort 1 (C1) at different times.
- (B) Cross-sectional Design: Average scores for three different cohorts (C1, C2, C3) at the same time, but different ages.
- (C) Cross-sequential Design: Average scores for three different cohorts over time.

Note: Cohorts over three times each, showing increases with age.
Figure 2: Hypothetical Pathways of Development Over Time.

A: Exponential Growth
B: Linear Growth
C: Nonlinear - Growth in initial phase followed by later decline
D: Step Function, indicating development in discrete steps
Many important theories of development originated not from large-scale studies of many children or adults over time, or from laboratory experiments, but rather from a limited number of observations on a small number of people (case and/or observational studies). Many notable examples can be found, including the theoretical positions of Sigmund Freud and Jean Piaget. The ethologists Konrad Lorenz and Niko Tinbergen formulated their ideas about critical periods of behavior – limited periods in the life cycle in which certain types of learning are possible – based on observations of animals and birds in their natural environments. Many very important ideas and principles in human development began with observations on just a handful of people (or even of animals). But single case studies are really just the beginning point of scientific theory building. What is important from a scientific standpoint is that these observations are replicable, and that they can be subjected to more rigorous research designs. Yet no amount of statistical sophistication or scientific expertise can replace the kinds of critical discoveries that developmental researchers have made based essentially on observation of individuals and a keen sense of intuition on the part of the observer.

Survey research, in the form of questionnaires or interviews, can be used to collect large amounts of data from many individuals. For example, parents can report on child-rearing practices (e.g., what forms of discipline they use with their children), teachers can describe the methods they use in their classes (e.g., group and individual exercises), and children of different ages can answer questions about their study habits (e.g., when they do homework). Surveys can also capture important status or demographic data to determine socioeconomic status, educational background, ethnic identification, and so forth. A problem with surveys is that they are self-report measures, which opens the possibility that people may report inaccuracies or even lie about themselves.
The Importance of Theory in Human Development

The Nature of Scientific Theories

A scientific theory is a framework for understanding natural phenomenon, including human development. A theory consists of a series of statements linking facts, observations, and propositions into a cohesive whole. For example, Piaget’s theory posits (among other things) that development of cognition in children proceeds in a stage-like fashion. He describes four major periods as well as some minor stages within each of these. These periods and stages are thought to unfold in an invariant sequence (stage 3 never comes before stage 2, for example), and universal (applies to children in all cultures).

Theories vary in terms of their structural formality. Truly formal theories are rare in science – think of Einstein’s theory of relativity as an example, which was formalized in Hans and Maria Reichenbach’s (1969) Axiomatization of the Theory of Relativity. According to Patricia Miller (2016, p. 3), “An ideal, formal scientific theory is a set of interconnected statements – definitions, axioms, postulates, hypothetical constructs, intervening variables, laws, and hypotheses…The function of this set of interconnected statements is to describe unobservable structures, mechanisms, or processes and to relate them to each other and to observable events.” In other words, the most formal of theories is stated something like the proof of a mathematical theorem – only with many more statements! Of importance here is the fact that some terms of the theory – in psychology these are called hypothetical constructs – are not directly observable, yet they can still lead to prediction of outcome measures which are observable.

In psychology, “general intelligence” (discussed in Chapter 6) is such a hypothetical construct. General intelligence, or g as the British psychologist Charles Spearman termed it, can be measured only indirectly, via intelligence tests. It cannot be directly observed, and it really isn’t exactly a “thing,” but rather a kind of ability. Psychologists still disagree in their understanding of the nature of intelligence. Nonetheless, scores on intelligence tests can be used to predict other kinds of outcomes.
Many theories have been advanced in developmental science, as will be seen in subsequent chapters. These vary in the degree to which they are formalized.

**The Value of Theories**

What exists today is not a grand, formal theory of development, but rather, a number of theoretical positions or *perspectives* (a perspective is a theory, a model, or sometimes more simply a way of looking at things) that give us meaning (in terms of psychological understanding) and direction (or ideas about where to go with further research). Developmental theories help us to:

- Gain insight into developmental phenomena by providing a “big picture” of those phenomena by organizing findings within a domain of study.
- Describe, explain and predict behavior.
- Suggest ideas (hypotheses) for further research studies.

To encapsulate all of this, theories help us to “get a grasp” on some big ideas in developmental science about how we grow and develop; they lead to new predictions and generate research. Accordingly, new findings will suggest ways in which a theory can be modified, for good theories are never stagnant; they are constantly being revised to accommodate new findings. Put differently, a theory that does not generate research is likely to be trivial or uninteresting.

**Some Basic Issues in Developmental Theory and Research**

Willis Overton (2006) noted that psychology and developmental science have historically been held captive by many fundamental but contradictory positions. Among the dichotomies of seemingly opposite positions (or *antimonies*) he mentions are: nature versus nurture, continuity versus discontinuity of development, and mind versus body. The divisive error that developmental scientists too often
make is to stress one or the other sides of the antimony, as though only one would ultimately prevail. Some of the traditional controversies in developmental science are discussed in this section and in the next section on philosophical positions on human nature.

**The Influences of Nature and Nurture on Development**

This is a very old and basic issue in psychology and developmental science. To what extent are we the product of our genetic inheritance and biology? How much are we shaped by life’s experiences? Although developmental scientists agree that both are important contributors, some theories place more emphasis on one rather than the other. And at different times in our history, one explanation has been favored over another as the primary determinant of behavior.

Freud’s psychoanalytic theory assumed that mental disorders can be traced to repressed anxieties from childhood, and later attachment theorists like Bowlby and Ainsworth placed great importance on the secure bonding of mother and child for later psychological health. By the middle of the twentieth century, many and perhaps most clinical psychologists assumed that the majority of mental disorders were rooted in childhood trauma or dysfunctional parental practice. Today, schizophrenia, manic depressive disorder, attention deficit hyperactivity disorder (ADHD), and a host of other candidates are often viewed as disorders of the brain and nervous system. Imbalances of hormones and *neurotransmitters* (substances in the brain that facilitate or inhibit transmission of nerve impulses) now rightly or wrongly tend to receive the lion’s share of the blame rather than unsatisfactory parenting. In many cases, the evidence does suggest that genetic components accompany, and perhaps cause, some psychological disorders. Hence, medical interventions are often prescribed in the form of psychotropic drugs. But increasingly, these are being administered to “problem children” at younger and younger ages. A question that must be asked, then, is whether the “nature/nurture” pendulum now swung too far in the biological/genetic direction. Is it true that today we now expect “a pill for every ill”? How is it that one member of a set of identical twins
experiences a schizophrenic episode in her youth whereas her twin does not?

Also, discovering that certain psychological disorders have some basis in biology does not obviate the need for psychotherapy; there will ordinarily be problems of adjustment associated with any disorder that require psychotherapy to accompany medical treatment.

Discussions of the relative influences of nature and nurture on development recur throughout this text. (In addition to the other study questions at the end of each chapter, the student might well ask in each case whether this particular perspective leans more heavily toward nature, toward nurture, or toward a balance between them.) But it is well to remember that no phenomenon of any importance in psychology and developmental science is due only to nature, or only to nurture: it is always a matter of the interplay between the two. This interdependence is sometimes difficult for people to accept because it seems almost natural to seek simple answers to complex problems – but perhaps this is how scientific discourse differs from everyday conceptions of political realities!

The Shape of the Course of Development over Time

Do human beings develop in more or less discretely identifiable stages, or is development more like a continuous, gradually sloping learning curve?

Behavioral psychologists working in the tradition of learning theory, such as Ivan Pavlov, John B. Watson, and B. F. Skinner (Chapter 10), believed that acquisition of knowledge and skills was gradual, even though the curve of learning was not necessarily linear, or in the shape of a perfectly straight line (see Figures 2.3a through 2.3d). Piaget and others thought that learning curves followed discrete stages of development (as in Figure 2.3e). In a sense, both were right, as certain types of skills are gradually accumulated, yet others required a kind of reorganization of thinking that Piaget believed marked a higher stage of development that comes through maturation and experimentation with the physical environment.
Maturationism versus Developmentalism

There are two seemingly opposing concepts that developmental scientists have advanced in the relatively short history of the field. There is no question that physical development unfolds in a sequence that is determined by nature, beginning with the embryo and continuing on with the fetus, the infant, the child, the sexual maturation that occurs in adolescence, and so on. But is psychological development similarly determined from within, determined as it were by our genetic makeup? Maturationists such as Arnold Gesell (e.g., Gesell, 1954) believed so. It is certainly true, for example that a child cannot learn to walk and talk until the nervous system and the skeletal-muscular system have matured and the child is physically ready to learn these complex tasks. But carried to an extreme, the maturationist position depends too much on genetic endowment (nature versus nurture again) to the exclusion of environmental factors.

On the other hand, developmentalists such as Piaget (Chapter 4) place considerable importance on the child’s interaction with the environment in development and learning. While recognizing that maturation is a factor in development, they also give much of the credit to the child him/herself in the process of development, who is seen by them as an active agent. For developmentalists psychological development does not simply “happen” in the course of time without the child’s very active involvement. Some developmentalists, Vygotsky, for example (Chapter 5), also stress the importance of interacting with peers and adults, and in fact, of learning through teaching, to development. That is why development (particularly cognitive development) takes somewhat different courses within different cultural contexts; and it also helps to explain why the strict maturationists’ position fails to adequately account for development.

Some maturationists (Gesell, for instance) are also stage theorists, whereas others (such as Albert Bandura, Chapter 11) are gradualists. Developmentalists on the other hand, usually tend to be stage theorists. And today, most people who call themselves developmental scientists are also developmentalists.
Units of Study: (a) Which Species to Study?

The reader has already seen that different theorists study different aspects of development – personality, cognition, morality, and so forth – but there are also sometimes differences in the units of analysis employed by developmental researchers. It was once the belief of some psychologists that one could learn all important laws of behavior by studying learning processes in vertebrates, so that research findings on the behaviors of laboratory rats or pigeons would be all that was required to understand human behavior. While this view no longer predominates, readers should be aware that it guided most of the research of the early behaviorists (Chapter 10).

Nevertheless, developmental scientists have indeed gained new insights into human behavior from studying other species. Ethologists like Konrad Lorenz and Niko Tinbergen (Chapter 12) discovered that certain species (geese, for example) learn a “following” response pattern in which they will follow their mother (or even other moving creatures or objects), but this specialized learning must take place during a certain stage of development that they called a “critical period.”

The ethologists studied species in their natural habitats. But the experimental psychologist Harry Harlow demonstrated that rhesus monkeys need love and affection in the form of “contact comfort” by using laboratory experiments, just as most of us imagine that human children do. Yet many psychologists at that time were urging parents not to “coddle” or spoil their children with unneeded attention at about the time this research was done. John Bowlby and Margaret Ainsworth’s work on the importance of mother-child bonding during certain sensitive periods of development was greatly influenced by such animal research.

Today developmental scientists recognize that we cannot learn about humans by studying animals exclusively – but they also recognize the important contribution of comparative studies with other species as well.

Units of Study (b): Context of Analysis

For the learning theorist in the early to mid-Twentieth Century the context of analysis was simply the behavior of the organism under
study as directly influenced by environmental contingencies (rewards and punishments). But for Jean Piaget the unit of study was not simply the child, but the child in the context of the environment; essentially he was focused on the interaction of the child with the environment. The child was considered an active participant in learning rather than a passive recipient. By comparison, Lev Vygotsky (Chapter 5) also studied children’s interaction with their environments, but all within the sociocultural context of family and society. For Vygotsky, then, the unit of analysis was not only the child interacting with the environment, but also within the given sociocultural context. The attachment theorists, John Bowlby and Margaret Ainsworth (Chapter 13), were highly focused on the dynamic interaction between mother and child in forming attachment bonds. For them the unit of study was the parent-child dyad.

As discussed in the last chapter, today the “bigger picture” of psychological development is viewed not simply as a series of individual journeys, but as a process embedded within an interpersonal, sociocultural, and sometimes even a historical, context (individual ↔ context) as well.
For Thought and Discussion

1. Why is astrology not considered a science? What aspects of astrology might give it a scientific appearance, even though it isn’t scientific?

2. Consider the three research designs for assessing changes over time (Figure 2.2). Suppose some event – perhaps a “Columbine” type disaster – happens in a school. How would one be able to assess the effects of this event on learning and separate them out from other effects by using a cross-sequential design?

3. If a study finds that “the correlation between IQ and family income is +.50,” what other information do you want to know before you draw any conclusions? What is the actual size or magnitude of this effect?

4. Try to think of some examples where the association of two events (correlation) can mislead people into assuming that the first event caused the second.

5. Name a few hypothetical constructs you are likely to encounter in psychological research, aside from intelligence.

****
Notes

1. The source is Wikipedia, downloaded on September 12, 2006, from: http://en.wikipedia.org/wiki/French_and_Indian_War. Although the war actually lasted nine years it is called the Seven Year’s War because it is dated in Europe not from the time that the battles began, but from the time that war was officially declared.
3. The Nature of Human Nature: Philosophical Perspectives on Human Development

No man’s knowledge here can go beyond his experience.

– John Locke¹

Man is born free, but everywhere is in chains.

– Jean-Jacques Rousseau²

[Without a strong central authority there would be] No arts; no letters; no society; and which is worst of all, continual fear and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.

– Thomas Hobbes³

Human Nature, Philosophy, and Psychology

What could possibly be meant by the term “human nature,” and why is it important for psychology? This might seem a naïve question, because, after all, isn’t psychology the study of behavior and mental processes? And if so, isn’t that all about human nature, or even about what it means to be human? But ideas about human nature are as much in the realm of philosophy as in psychology, and probably, in fact, more a concern of the former than the latter.

A couple of centuries ago the two disciplines—philosophy and psychology—were not separated at all; it was not until the nineteen hundreds that the two began to be considered separate areas of inquiry. But if one looks closely at the different perspectives we find in psychology—psychoanalysis, behaviorism, cognitive psychology, humanistic psychology, and evolutionary psychology, for example—one begins to find underlying assumptions concerning human nature which are often unstated. These can be subtle and may be implicit rather than explicitly stated. So it can be enlightening to see which ideas or personal biases about the nature of human beings underlie each of the major perspectives. Are people basically good and moral,
<table>
<thead>
<tr>
<th>Three Notable Philosophers on Human Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td><strong>Key work:</strong></td>
</tr>
<tr>
<td><strong>Key ideas:</strong></td>
</tr>
<tr>
<td>Philosophy of human nature:</td>
</tr>
<tr>
<td>Who was influenced by?</td>
</tr>
<tr>
<td>Of note:</td>
</tr>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td><strong>Key works:</strong></td>
</tr>
<tr>
<td><strong>Key ideas:</strong></td>
</tr>
<tr>
<td><strong>Philosophy of human nature:</strong></td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Philosophy of Education:</strong></td>
</tr>
<tr>
<td><strong>Who was influenced by?</strong></td>
</tr>
<tr>
<td><strong>Of note:</strong></td>
</tr>
</tbody>
</table>

**Name:** [Jean-Jacques Rousseau](https://en.wikipedia.org/wiki/Jean-Jacques_Rousseau) (French, 1712-1778; Enlightenment Era)

**Key works:** *The Social Contract; Emile*

**Key ideas:** Society has a corrupting influence on the individual. “Natural” cultures are superior to the complexities of highly civilized ones. Rousseau was also the first developmental stage theorist.

**Philosophy of human nature:** People are basically good; evil arises because society corrupts us.
<table>
<thead>
<tr>
<th><strong>Philosophy of Education:</strong></th>
<th>Children are natural learners; adult educators should guide but not control their learning.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who was influenced by?</strong></td>
<td>Jean Piaget, Maria Montessori, and other cognitive developmentalists.</td>
</tr>
<tr>
<td><strong>Of note:</strong></td>
<td>Although Rousseau wrote extensively about child rearing he was himself a poor parent who neglected his many illegitimate children.</td>
</tr>
</tbody>
</table>

for example, or are they selfish and evil? Does what motivates one person differ from another—the drive to achieve, for instance, might be the prime motive for one person whereas perhaps the more simple seeking of the “good life” of pleasure and comfort might drive another. Or is there a single “master motive” which underlies all of our strivings which we can call “human nature”?

This section provides a brief introduction to some of the areas of philosophy needed to delve more deeply into such philosophical assumptions. It is an interesting exercise to then examine which of these ideas are most appealing to each reader from his or her own perspective. And as will be seen, the ideas presented in this chapter regarding human nature will resurface again and again throughout this book.

### Three Areas of Philosophy which Bear on Psychological Perspectives

Some of the general areas of philosophy that are of most concern to the present course of study are:

- **Epistemology** (or theory of knowledge): How do we know what we know? How is knowledge acquired and how is this knowledge verified through experience – or is there some sort of inborn or innate knowledge?
• **Metaphysics:** Metaphysics concerns the basic nature of reality, including what is meant by “being.” Metaphysics means, literally, “after physics,” or things not explained by the study of physical reality. This is a difficult concept to define! Though not always made explicit, metaphysical ideas “creep into” some of the perspectives considered here. Certain metaphysical ideas appear through this book, such as are encountered when considering “mind-body” distinctions.

• **Ethics** (or moral philosophy): Plato asked “What is the good life?” or in other words, how should one live? This has been a concern of philosophers ever since. What is the nature of good, of evil? These are deep questions that go beyond psychology and developmental science and this book does not attempt to answer them. It does, however, consider children’s development of moral understanding; hence it is necessary to consider how different individuals and societies conceptualize morality.

**Some Basic Ideas from the History of Philosophy**

**Epistemology.** Philosophers hold different views about sources of human knowledge. Plato and Aristotle differed: Plato believed that knowledge could be derived from reasoning. The term rationalism refers to this basic concept. Aristotle, on the other hand, was an empiricist: He believed that nothing could be known except through direct sensory experience. Later philosophers would continue to disagree. René Descartes, for example, agreed with Plato, the British empiricists David Hume and John Locke with Aristotle.

The idea that some knowledge is innate or inborn is called nativism. This concept is important in the history of psychology. Some psychologists (e.g., Hermann von Helmholtz working in the nineteenth century) believed that perceptual abilities were inborn. Nativism also played a role in the perceptual psychology of the Gestaltists, who argued that not all behaviors are learned; rather, some appear to be “natural” or innate. Refer to Table 3.1 for a summary of these positions on epistemology.
Metaphysics and the Mind-Body Problem. Is the mind essentially different from the physical body? In his autobiography Bertrand Russell (1967) stated that he heard this clichéd refrain over and over from his family (until he became quite bored with it): “Mind? No matter. Matter? Never mind!” This idea, that mind and body are separate kinds of entities, each with its own laws, is called dualism.

By contrast, monism is the idea that there is only one basic substance or reality. Materialism is the idea that all substance is material or physical; hence materialists are necessarily monists, but the reverse is not necessarily true; Bishop Berkeley believed that all reality consists of ideas – a philosophy known as idealism. Democritus was a very early materialist who first proposed that matter was made of atoms, and that nothing else exists apart from these basic building blocks.

Thomas Hobbes, a materialist, believed that the mind was merely an epiphenomenon, or something that arose as a kind of byproduct of the underlying physical reality. Baruch Spinoza’s dual-aspect theory was not the same as dualism; Spinoza believed that both mind and body were, as the term implies, two aspects of the same underlying reality, which was divine in origin.

Parallelism refers to the belief that the mind and body are separate (dual) systems, but that they do not interact. In contrast, Descartes was not just a dualist, but also an interactionist who agreed that mind and body were separate but interacting entities. Descartes believed that the pineal gland was the organ at which the two forces met, so to speak, to interact (perhaps because there was no other known function at the time for this gland).

Today many evolutionary psychologists, behavior geneticists, and cognitive neuroscientists, tend to be materialistic monists. A mind, a self – or a soul, for that matter – that is something in addition to or beyond the physical brain itself, they consider a “ghost in the machine” (Pinker, 2002). This doesn’t invalidate the concept of a “mind” or of a “self,” so long as such terms do not imply any surplus meaning. If the mind is indeed be an epiphenomenon then it is a very important one, designed by nature through the process of evolution to ensure survival of the individual and of the species. For a thorough and cogent discussion of “mind/body,” see Hustvedt (2017).
Metaphysics and the Question of Free Will versus Determinism. By determinism is usually meant the notion that all events are physical in nature and have physical causes that are law-like. Deterministic principles are thought to apply equally to the dynamics of a physical system or to human behavior. Alternatively, some philosophers believed instead that all events are divinely determined, but for present purposes the former conceptualization of determinism is assumed.

Free will is the common sense idea that people can freely make choices. This idea is not only interesting to philosophers, but also to theologians, many of whom assume that people are free to choose a life of good versus evil. Many people see free will and determinism are opposing ideas, but this depends in large part on one’s definition of the two terms. For example, Rudolf Carnap stated that “When a person makes a choice, his choice is only one of the world’s causal chains. If no compulsion is involved, which means that the choice is based on his own preference, arising out of his own character, there is no reason for not calling it a free choice. It is true that his character caused him to choose as he did, and, this in turn, is conditioned by previous causes. But there is no reason for saying that his character compelled him to choose as he did because the word “compel” is defined in terms of outside causal factors” (1966, p. 221, emphasis in original). In other words, a person is compelled if, say, someone holds a gun to her head and orders her to commit an act, but most people’s actions are not compelled in such a way. This perspective is known as compatibilism.

Some philosophers and psychologists espouse a particularly mechanistic determinism in which the behavior of people (and animals) is seen to operate in not only a deterministic mode, but moreover in a machine-like fashion, and in accordance with laws of physics. Carnap was definitely not of this view, but in psychology such a viewpoint was taken by some classic behaviorists, particularly B. F. Skinner, who saw the external environment as the cause of all behavior. In contrast to Skinner, the social-cognitive learning theorist Albert Bandura believes that human behavior can only be fully understood when people are viewed as active agents in their own lives.
54


The metaphysical positions discussed here are summarized in Tables 3.2 and 3.3.

**Ethics: Some Ideas concerning Morality and “The Good Life.”**
A comprehensive survey of philosophical ideas about morality and ethics is not possible here; only a few classical ideas are presented. Some of these ideas will resurface in the psychology of morality, in which developmental scientists present people with hypothetical

- Plato believed that goodness was an absolute; it was given and is independent of and prior to humanity. But it can be learned through reasoning (idealism again). However, only the elite, highly trained philosopher was capable of discerning this good.

- For Aristotle, happiness was the primary goal of life. But happiness was achievable through the practice of the **golden mean**, or moderation in all things. For example, courage is a desirable characteristic that lies between the extremes of cowardice and rashness. Unlike Plato, Aristotle did not view virtue in absolute terms; rather, the happy or fulfilled life means one thing to one person, another thing to the next. Aristotle was thus a **moral relativist**.

- Aristotle did not claim that happiness always implied pleasure, but pleasure was the central idea in the philosophy of Epicurus, who espoused the philosophy of **hedonism**. But **Epicureans**, like Aristotle, believed in moderation: one may have too much of a good thing. Overeating or excessive wine consumption were not good because they did not result in pleasure over the long run.

- If the Epicurean ideas seemed linked to Aristotle, the **Stoics** were more closely aligned with Plato. Stoicism implies a belief in absolute good. The Stoics believed in living a simple and frugal life of asceticism to escape from the evils of the world at large. (Note also the similarity here to **early Christianity**.)
One of the most notably philosophers of ethics was Baruch (or Benedictus) Spinoza, who wrote in the seventeenth century. But Spinoza’s moral philosophy is difficult to describe, especially in a few short sentences. He was a determinist, and somewhat of a stoic himself; yet also a relativist. He did not see good and evil as absolutes. Human acts must be judged on their merit; killing or stealing might be justified in specific instances, for example. He thought that, since events were determined in a fatalistic way, an objective and non-emotional view of them was best. Like other philosophers, Spinoza saw human happiness as a worthy goal. But Spinoza is important here because some of his writings fit well with modern evolutionary psychologists, behavior geneticists, and cognitive neuropsychologists in their study of the adaptive nature of emotions: “… the very first foundation of virtue is the endeavor (conatus) to preserve the individual self, and happiness consists in the human capacity to preserve itself” (from The Ethics; quoted in Damasio, 2003, p. 170). Further quoting Damasio on virtue and self-interest at length, he states:

At first glance the words sound like a prescription for the selfish culture of our times but nothing could be further from their real meaning. As I interpret it, the proposition is a cornerstone for a generous ethical system. It is an affirmation that at the base of whatever rules of behavior we may ask humanity to follow, there is something inalienable: A living organism, known to its owner because the owner’s mind has constructed a self, has a natural tendency to preserve its own life; and that same organism’s state of optimal functioning, subsumed by the concept of joy, results from the successful endeavor to endure and prevail. Paraphrased in deeply American terms I would rewrite Spinoza’s proposition as follows: I hold these truths to be self-evident, that all humans are created such that they tend to preserve their life and seek well-being, that their happiness comes from the successful endeavor to do so, and that the foundations of virtue rests on these facts (pp. 170-171, emphasis added).

and:

Here is the procedure: The biological reality of self-preservation leads to virtue because in our inalienable need to maintain ourselves we must of necessity, help preserve other selves. If we fail to do so we perish and are
thus violating the foundational principle, and relinquishing of virtue that lies in self-preservation (p. 171, emphasis added).

and finally:

So here is the beauty behind the cherished quote, seen from today’s perspective: It contains the foundation of a system of ethical behaviors and that foundation is neurobiological. The foundation is the result of a discovery based on the observation of human nature rather than the revelation of a prophet (p. 171, emphasis added).

These reflections are also consistent with many other modern writers on bioethics; for example, Richard Dawkins (1976/1989) or Robin Wright (1994), who see an evolutionary basis for morality. All agree that man is a social animal, and that a morality based on cooperation underlies much of human activity; or put differently, that individual survival depends on the success of the group, tribe, or society.

• The utilitarian philosophers, notably Jeremy Bentham and John Stuart Mill, believed that morality resulted from the consequences of human acts, rather than the motives of the perpetrators; “If an action produces an excess of beneficial effects over harmful ones, then it is right; otherwise it is not” (Popkin & Stroll, p. 32). The weakness of this position is easy to spot; all of the long-term consequences of a given act cannot be known be anticipated in advance, so it becomes difficult to apply this philosophy in practice. But utilitarianism is still a useful point of view in both economics and in politics (think of the long-term effects of price controls or declaration of war, including the unintended consequences – such as so-called “collateral damage” in the case of war).

• Immanuel Kant propounded an interesting concept that he called the categorical imperative: that one should act consistently in terms of right moral precepts without any reservations or qualifications. Kant did not believe that “the end justified the means.” Thus one should never lie, cheat, steal, and so forth. But
taking such absolutist measures is bound to strike most people as unreasonable (see, for example, the moral dilemma of “Heinz Steals a Drug” in Chapter 7). On the one hand, Kant’s imperative seems consistent with Judeo-Christian ethics (i.e., the Ten Commandments), and is also consistent with the Golden Rule: “Do unto others as you would have them do unto you.” But the rigidity of his proscriptions can lead to dire consequences; think, for instance, of the necessity of lying to the Gestapo when hiding someone in order to protect her, as in the well-known autobiographical diary of Anne Frank (1947/1989).

### Perplexed?

Do we have a will that’s free?
Something here is clear to me
  When I see people struggling
  With decisions troubling
Willing’s free for me, but not for thee

(Poem by the author—who often is)

### A Contrast in Philosophies: John Locke Versus Jean-Jacques Rousseau

In his book *The Blank Slate: The Modern Denial of Human Nature*, Steven Pinker (2002) begins by addressing three ideas that he considers to be fallacious: The ghost in the machine (already discussed), the blank slate, and the noble savage, which will be discussed shortly in terms of the philosophies of John Lock and Jean-Jacques Rousseau, respectively. But Pinker’s basic thesis is, as his subtitle suggests, that the idea that there is indeed such a thing as “human nature,” even though this notion has been denied by many modern academics. In support of this, he cites what John Tooby and Leda Cosmides (1992) term the *standard social sciences model (SSSM)*, so named because it represents ideas that are thoroughly
engrained in the progressive ideology of the late nineteenth and early twentieth century. They claim that this is the philosophy, adopted wholesale by social scientists, that human cultural progress is not only possible through better science and technology; it is demanded. This philosophy of social engineering was also the driving force behind behaviorism in psychology (Mills, 1998). But the seeds of these ideas were planted earlier, by Locke in the seventeenth century – ideas that also led to the American ideals of democracy as well.

**Locke’s Empiricism.** John Locke was a philosopher of the enlightenment era. Like others of this era, Locke rejected many traditional ideas, such as Platonic idealism, the authority of the church, and hereditary privilege, such as the divine right of kings. He was a strong empiricist and environmentalist, who believed that a person’s destiny was shaped by experience and education, not by birth. The mind of a child, he argued, is a *tabula rasa* (Latin; usually translated as a *blank slate*). In Lockian terms, then, the function of education is to “write upon” this slate that knowledge and those values, including citizenship, that were recognized as worthy by an enlightened society. Contrary to conventional beliefs, however, Locke did believe that there *some* individual differences present at birth; thus he was not always entirely consistent (Crain, 2010).

In terms of his psychology Locke was an **associationist**: He believed that complex ideas developed through a series simple mental associations. Simple associations were thus the building blocks of more complex ones. As an example of very simple associations, recall from basic psychology (or see later in Chapter 10) how Pavlov’s dogs associated the sound of a bell with food, and thus were conditioned to salivate at this sound. Locke therefore believed that, in teaching children, one must begin first with simpler concepts, and then build upon them in incremental steps. Like it or not, for students, repetition is therefore the key to much of what is learned. Yet insofar as possible, Locke believed that education should be made interesting and enjoyable.
| Mind and Body Interpretation and Dual Aspect Theory (Table 3.2)
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dual Aspect Theory</strong></td>
</tr>
<tr>
<td><strong>Dualism</strong></td>
</tr>
<tr>
<td>The mind and body are separate, distinct entities. They do not intersect (another form of mind-body dualism)</td>
</tr>
<tr>
<td><strong>Parallelism</strong></td>
</tr>
<tr>
<td>The mind and body are separate, distinct entities. They do not intersect, but are synchronized in their activities (mind-body dualism)</td>
</tr>
<tr>
<td><strong>Interactionism</strong></td>
</tr>
<tr>
<td>The mind and body are separate, distinct entities. They do not intersect, but interact with each other (mind-body dualism)</td>
</tr>
<tr>
<td><strong>Monism</strong></td>
</tr>
<tr>
<td>The mind and body are separate, distinct entities. They do not intersect, but are identical (mind-body dualism)</td>
</tr>
<tr>
<td><strong>Explanatory Dualism</strong></td>
</tr>
<tr>
<td>The mind and body are separate, distinct entities. The nature of each is different.</td>
</tr>
<tr>
<td><strong>Typical Advocates</strong></td>
</tr>
<tr>
<td>Berkeley, Bishop Berkeley</td>
</tr>
<tr>
<td>Aristotle, John Locke</td>
</tr>
<tr>
<td>Descartes</td>
</tr>
<tr>
<td>Dualism</td>
</tr>
<tr>
<td>Interactionism</td>
</tr>
<tr>
<td>Monism</td>
</tr>
<tr>
<td>Explanatory Dualism</td>
</tr>
<tr>
<td>Berkeley, Bishop Berkeley</td>
</tr>
<tr>
<td>Aristotle, John Locke</td>
</tr>
<tr>
<td>Descartes</td>
</tr>
</tbody>
</table>

Note: The last three—Interactionism, Parallelism, and Dual Aspect Theory—are all variations of Dualism.
Table 3.3: Metaphysics: Free Will versus Determinism

<table>
<thead>
<tr>
<th>Concept</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinism</td>
<td>People's actions are determined by forces beyond their control. For example, all cultural forces, by external environmental pressures, or by a combination of the two. Karl Marx advocated a form of historical determinism; B.F. Skinner's was a mechanistic determinism (i.e., people respond to their environment in a machine-like fashion).</td>
</tr>
<tr>
<td>Free Will</td>
<td>People can freely make choices and take responsibility for their actions.</td>
</tr>
</tbody>
</table>

Typical Advocates

- The Epicureans, Spinoza, Karl Marx, B.F. Skinner
- Existentialists, Christian-Islamic theologians, Libertarians.

Compatibilism

Compatibilists believe that free will and determinism are not contradictory concepts. One form of compatibilism argues for soft determinism, or the belief that, although all actions are determined (caused) in a physical sense, one is relatively free in choice if not forced or coerced into an action.

William James, Rollo May, Imre Lakatos, David Hume, Rudolf Carnap

Indeterminism

In principle, the course of people's actions cannot be completely determined. (Exaggerated from Heisenberg's uncertainty principle in quantum physics.) (This is an interesting, though not well-accepted, concept.)
Locke also believed that rewards motivated learning and were central to the learning process. He departed from the prevailing philosophy in European schools that stressed punishment for failure to learn one’s lessons quickly or thoroughly. Punishments, he believed, would not motivate the child to learn; rather, punishment would only be effective in the short-term, and the administrator of the punishment would risk breaking the child. He admitted that punishment was sometimes necessary, but believed that it should take the form of mild reproof. Rewards in terms of praise or approval were best – with other kinds of rewards, such as money, gifts, or other “goodies,” the child learns only for the sake of such external contingencies – but lacks the long-term interest in learning for its own sake. (Notice how modern some of Locke’s ideas are about fostering *intrinsic motivation* (a love of learning for its own sake; cf. Deci & Ryan, 1975; Gottfried, Fleming, & Gottfried, 1994).

**Rousseau’s Romantic Nativism.** Rousseau, another philosopher of the enlightenment era, disagreed with Locke’s notion of the blank slate. His position was nativistic because he believed that children come “pre-programmed” to learn in a natural way, and that they will do so with a minimum of adult instruction (or perhaps interference would be a better term). Rousseau believed that children learn naturally, by trial and error in experimenting with their natural surroundings. Of critical importance, Rousseau believed that biological maturation dictated what and when the child was capable of learning. He also specified four discrete stages of development (infancy, early and then later childhood, and adolescence) that corresponded to differing levels of maturation, and what he believed children learned naturally during these states (thus anticipating the stage theories of Jean Piaget, Maria Montessori, and other cognitive developmentalists; Crain, 2010)).

There are many things in life that children must and can learn only through self-discovery; indeed, Rousseau believed that children can truly grasp many concepts only through such a process of self-discovery and explanations, and that the child is also the best judge her or his own successes. The goal of education, especially in the early years, is not to teach facts or “correct answers,” but rather to
63


<table>
<thead>
<tr>
<th>Concept</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buddha</td>
<td>The way to peace of mind is through contemplation and meditation.</td>
</tr>
<tr>
<td>Jean-Paul Sartre, Victor Frankl</td>
<td>Find or create a meaningful existence. Pleasure and happiness are not enough. The good life is one in which people can power over others is stripped. Christianity stresses love (as well as duty).</td>
</tr>
<tr>
<td>Nicholas Proshansky, Frieda Proshansky</td>
<td>The good of life is one of pleasure. The goal of life is individual happiness. Being happy requires moderation in all things. The goal of life is one of morality and responsible living. For Kant, the categorical imperative means determining one's own moral principles and always adhering to the stake's Enforcement. Kant, Christianity and Muslims</td>
</tr>
</tbody>
</table>

Table 2.5

Ethics and the "Good Life"
allow the child to learn through experiencing and doing. Education should be child-centered, not teacher-centered, in Rousseau’s worldview.

The romanticism associated with Rousseau came from his belief that most of society and social conventions thwarted the individual’s tendencies to grow and develop according to nature’s plan; hence the term *noble savage*. He believed that simpler (some would say “primitive”) social structures – or minimalist societies – were more natural and therefore better. Unlike other philosophers of the enlightenment (e.g., Diderot, Condorcet, Voltaire), he did not see the possibility of social progress in complex cultures. Rousseau’s own experiences with social organizations, and his witnessing of greed and power among them members within them, contributed to his cynicism.

Today Rousseau’s ideal of the noble savage is considered not only naïve but, according to Pinker (2002), sadly mistaken. So-called primitive peoples have their own social structure and rules, and life is seldom easy or ideal. But his ideas of stages of development and their importance in teaching and learning remain viable, and his beliefs that children learn much through on their own according to their state of readiness is considered basic by many if not most theorists.

In comparing Locke’s ideas with Rousseau’s in terms of classroom application, educational practice is not limited to one or the other, but in a practical sense is a product of both. But traditional schools are probably more “Lockian” whereas certain non-traditional schools – such as those utilizing the Montessori Method – are much more “Rousseauian.”

**The “Blank Slate” and “Noble Savage” Today.** Locke’s associationism was refined by John Stuart Mill, and both influenced John B. Watson, B. F. Skinner, and other behaviorists. Locke’s environmentalism and belief in mind as a blank slate were also major influences. Coupled with these ideas was the progressive philosophy led by Watson, Skinner, and others to believe in the fundamental malleability of behavior and in the hope psychologists (and other scientists) could engineer a better society through technology. An assumption underlying this philosophy was the rejection of the notion
that people have any sort of inborn nature – no propensity to learn certain kinds of tasks at certain periods of development, for example; no differential susceptibility to psychological disorders such as schizophrenia; no inborn aggressive tendencies; and indeed, no basic difference from one infant to another. With the proper training and technology, all could be taught (or conditioned) to behave in a manner that would benefit themselves and society as a whole. In other words, a strongly environmentalist position predominated.

The disagreements about human nature led to some real “culture wars” between those who supported the SSSM and those who opposed it. According to Pinker, “To acknowledge human nature, many think, is to endorse racism, sexism, war, greed, genocide, nihilism, reactionary politics, and neglect of children and the disadvantaged. Any claim that the mind has an innate organization strikes people not as a hypothesis that might be incorrect but as a thought that it is immoral to think” (2002, p. viii, emphasis added). Indeed, it is almost as if people who reject the almost sacrosanct SSSM must be considered fascists. But does it really follow that believing in some version of human nature – the idea that people come into the world equipped to act in certain ways under certain circumstances – implies that these believers are anti-liberal or anti-progressive? This is not the case according to Pinker, who argues that social progress does indeed depend on accepting these newer ideas from evolutionary psychology, behavior genetics, and cognitive neuroscience.

How is it that “No current theory of personality can explain why both members of a pair of identical twins reared apart liked to keep rubber bands around their wrists and pretend to sneeze in crowded elevators” (2002, p. 73), Pinker asked?

In a measured and balanced account, Lerner (2002; 2006) cautioned of the potential consequences when evolutionary psychologists lean too strongly toward the “nature” side of the nature/nurture antimony. Specifically, Lerner (2006) believes that such “genetic reductionism” can amount to “biologizing errors of the past, such as eugenics and racial hygiene” (p. 7), if not among scientists then for the “Person in the Street” who too often seeks simplistic explanations for complex behavioral phenomena. Such
explanations are all too readily available from popular and sensationalist sources lacking in any scientific basis.

Concluding Remarks: So, What’s All the Fuss About?

What difference does it make if human behavior is seen as being somewhat more rooted in biology than was once thought, and why the strong reaction to these ideas by those who favor the SSSM? Lerner’s fears are firmly grounded in historical precedents that would seem quite alarming, in which ideas of genetic determination have been misused by social scientists and politicians alike. Sir Francis Galton founded the Eugenics Society in England in the late nineteenth century. Galton believed that those who were superior specimens of humanity should be encouraged to have children; those who were lower down in the social scale (and presumably intelligence) should not. It probably goes without saying that Galton placed himself in the high upper end of this continuum!

Galton’s ideas were extended to race and ethnicity, and in fact adopted by Hitler in his beliefs in a master (Germanic) race, and to a certain extent by other racist groups. In psychology, intelligence testing was misapplied to immigrants coming to the United States in the early twentieth century as well. But this gets ahead of a story that is told more fully in Chapter 6, on intelligence. The fears of some individuals are obviously not without basis; however it does not necessarily follow that a belief in biological influences on behavior will lead to further negative implications for human rights and values. But such beliefs must be tempered by the recognition – and this is worth repeating – that the nature/nurture antimony is a false dichotomy: development is always a matter of the interplay between the two; as once again, following Aristotle’s wisdom, the path of the golden mean applies. Biology is not destiny; what happens to people in the course of their lives is as important for their development as is their genetic endowment. And any contemporary conception of “human nature” must recognize that this is so.

Fortunately, utilizing genetic differences in the service of racism or racist policies is no longer as dangerous what it once was (though there may still be a few that push this cause; see Lerner, 2002). Many psychologists now view race as more a socially constructed concept,
less than one that is rooted in biology. But as this text is being written, the U.S., and indeed, much of the rest of the world, is witnessing a rise in racism, anti-Semitism, and prejudices related to gender identity. When I first read Lerner’s admonition regarding the “person on the street,” my first reaction was to think that people are smarter than that. Unfortunately these times have convinced me that he is right in his concerns.

****
For Thought and Discussion

1. Which philosophers discussed in the “Philosophical Positions” section are moral relativists and which are moral absolutists?
2. Do you have a position on the free-will versus determinism divide? What is it?
3. What to you is “the good life” or the best way to live, taking into consideration your views of morality?
4. In your experience, are parochial schools more influenced by the philosophy of Locke or by Rousseau? How about Montessori types of schools? What was your own experience as a child in school?
5. If you are a parent, or have extensive experience with families and children, how similar or different can two small children from the same family seem? What might your observations tell you about the influence of nature and nurture on development?

****
Notes

4. See the January, 2005, issue of the *American Psychologist*; also the further discussion in Chapter 6.
Part II:
Development of Cognition
and Morality
4. Piaget and Cognitive Development

During this [early childhood] period magic, animism, and artificialism are completely merged. The world is a society of living beings controlled and directed by man. The self and the external world are not clearly delimited. Every action is both physical and psychical.

—Jean Piaget

Piaget’s Place in the History of Psychology

A ranking of the most eminent psychologists of the 20th century by professionals in the field listed the top three names as B. F. Skinner, Jean Piaget, and Sigmund Freud (Haggbloom and others, 2002). These three names also occupy places of prominence in this textbook. But although Skinner’s impact on the field of psychology was enormous, interest in the kind of behaviorism he espoused has waned; and though many of Freud’s contributions still influence the theory and practice of psychology, many of his major ideas have been duly rejected by his successors. Of these three psychologists, Piaget’s ideas have probably fared the best over the years: they continue to influence research and theory in child development, and with some minor exceptions, his theories have stood the crucial test of time as well as any major theorist in psychology. Yet Piaget was not a psychologist by formal training. His two doctorates were in natural science (emphasizing biology; his early interests were in studying mollusks) and philosophy (emphasizing logic). But Piaget had many interests, including epistemology and the philosophy of science, both of which influenced his research.

In 1920, Piaget had an opportunity to work with Theodore Simon (who was the co-creator of the first intelligence test, along with Alfred Binet; Binet & Simon, 1905). Piaget found his job of helping to standardize intelligence tests rather uninteresting, but he did become interested in studying the way that children reasoned when attempting to solve the problems presented to them by the tests. Often it was the child’s production of incorrect answers that intrigued
Piaget, and in attempting to discover how the children arrived at their answers, he embarked on a lifelong journey of studying the stages and growth of cognition in children. He was primarily interested in how children think, and how their thinking about solving problems changes qualitatively at different stages of development.

Although Piaget’s early writings received some attention in the United States in the 1920s and 1930s, his influence waned with the rise of behaviorism. His research did not mesh well the methodological paradigms of his time, nor with the behavioristic ideas that were prevalent. Although Piaget did study behavior by direct observation, his ideas were perhaps too mentalistic for that era – roughly the twenties through the fifties. Also, he often based his observations on very small and somewhat biased samples – including his own children! These factors raised questions about his objectivity: to American psychologists his methods were more like clinical observations or case studies than rigorous, scientific, laboratory kinds of procedures. Yet his observations have been verified in scientific research many times over. According to Wadsworth these criticisms of Piaget’s methodology “diminish in importance if one accepts the assumption implicit in Piaget’s theory: that the general course of development of intellectual structures is the same for all people” (1996, p. 9). But remember, Piaget was first a biologist; he believed that human behavior is adaptive; and further, that the general patterns of adaptation equally characterized all members of our species in the process of development. And why not? Except in the rarest of anomalies, a biologist studying the digestive system of one member of a species would expect that the anatomic and physiological principles would be the same in all other members of that species. Why shouldn’t the same be said of basic psychological principles of growth and development as well, grounded as they are in biology?
Piaget: Some Biographical Facts

- Piaget had his first publication at age 10 in a nature magazine, on an albino sparrow.

- Between 15 and 18 years of age, he published a series of articles on shellfish. As a result, he was offered a position as curator of the mollusk collection at the Geneva museum of natural history. (He had to turn this down because he had yet to finish high school!)

- Piaget received his PhD in natural science at age 21 from the University of Neuchâtel. By this time he had already published 21 papers!

- His interest in epistemology (theory of knowledge) led him to study how children solve problems.

- At Albert Einstein’s suggestion, Piaget investigated children’s understanding of time, space, speed, and motion, resulting in two books on these subjects.

- During his long lifetime (Piaget died in 1980, at age 84) he wrote over 40 books and numerous articles. He was honored by the American Psychological Association with the Distinguished Scientist Award in 1969.

(For more information concerning Piaget’s life and achievements, see Ginsburg and Oppen, 1988.)
Basic Piagetian Concepts

Piagetian Conservation Tasks

Before plunging headlong into Piaget’s sometimes abstract theoretical ideas about the ways in which children learn at different stages of development, it may be helpful – particularly to students with no familiarity with Piaget – to begin with a few examples of his well-known conservation tasks. These nicely illustrate Piaget’s approach to observing children as they grapple with ordinary objects.

Piaget noticed that students below a certain level of maturity (prior to about age seven) had difficulty in comprehending certain problems involving invariants in quantity. In his famous water level task, for instance (see Fig. 4.1), a child is shown a large glass or pitcher of water. The water is poured into a different size container – one that is wider – so that the resulting water level is lower than it was for the original container. Young children simply did not see that the amount of water was unchanged. They might report that the glass with the lower level has less water, because the height is lower, or less commonly, that there is more water in the glass with the lower level because it is more spread out.

Similarly, if a large lump of clay is broken into several smaller lumps, the child may claim that there is now more clay, because the number of lumps has increase, or perhaps that there is less clay, because the lumps are smaller. Or, if the large lump of clay is flattened, they likewise believe that the amount has changed simply because of the change in shape of the mass. In these, and in other tasks illustrated in Figure 4.1, the child fails to see that the amounts are the same: that the quantities are preserved or conserved under these transformations (i.e., they do not actually change, even though their appearances change).

Piaget called the stage of development just before children reach the level where they can correctly solve the conservation tasks the preoperational stage (see Table 4.1). At this stage, children seem to have difficulty focusing on more than one aspect of a situation. He
called this tendency to focus on just a single aspect of a situation *centration*. For example, the child’s attention may be centered primarily on the height of the water level, yet the child fails to see that the width also changes, and compensates for the lowered height. A key feature of the preoperational stage is that the child’s thinking process precludes the notion of reversibility in these mental operations: he or she cannot seem to grasp the notion that conservation requires (mentally) seeing that pouring the water back into the original container should result in the same, original quantity. Thus, preoperational thought is characterized by a certain kind of fixedness of thought that Piaget called *irreversibility*.

The Piagetian Concept of Stages (Periods) in Cognitive Development

Piaget was a true stage theorist, in the tradition of Rousseau. Like Rousseau, he believed that children learn best the natural way: through experimentation and interaction with the environment in the course of play or ordinary activity. He therefore downplayed the importance of formal teaching in the earliest years, when the child is essentially her own best teacher. The young child forms mental representations of the world through the process of manipulating objects in the environment. He thought of the toddler as a “little scientist” trying to make sense of the world by learning through experimentation.

Piaget actually called his major stages *periods* of development. Within these periods he sometimes delineated what he called *stages* of growth as well (see Table 4.2). According to Piagetian theory these periods (and stages within periods) are characterized by the following properties (Kohlberg, 1968):

**Invariant sequence.** Stages are invariant in sequence: just as one must learn to crawl before learning to walk, a child must complete earlier stages before later ones can be achieved.

**Generality.** Each period can be described by very general properties. Thus, for example, the concrete operational period is not merely the period in which a child can solve water level problems, but
more generally, the child has come to understand the concept of conservation, including reversibility, as well as the loss of centration.

**Cognitive restructuring.** Each period represents a cognitive restructuring in the sense that later periods represent qualitatively different ways of thinking; yet at the same time there is –
Hierarchical integration. Each period represents a hierarchical integration of lower stages into higher ones. Earlier thinking patterns are not lost; rather, they are incorporated into the higher levels.

Universality. Periods and stages are universal: all children in all cultures progress through the same periods and stages.

One may wonder, then, whether these periods and stages are genetically determined or “programmed into” the child’s nervous system, as a maturationist might claim. The answer is no: only in the sense that a certain maturation of the nervous system is required before a child can move to a higher stage. Cognition and learning of particular tasks – say the conservation of volume in the water level task – are not in any sense genetically programmed into the child. Rather, children’s brains have, through the process of evolution, the necessary flexibility to enable the solutions of certain kinds of problems at certain levels of development. This learning takes place through natural interactions with the environment. Thus, Piaget was a true developmentalist as this term was described in the second chapter.

Another question often comes to mind with Piaget: exactly how discrete are these periods and stages – do changes in the child’s abilities occur suddenly and abruptly? It is more or less true that a child who can solve one kind of conservation task – say the conservation of number (as when a large chunk of clay is divided into smaller lumps) – can also solve another – for instance, the conservation of mass (such as when a large lump of clay is flattened or reshaped). However, development of cognitive skills is not always quite this clear cut. In the early concrete operational stage, a child may be able to do some tasks but not others. Piaget referred to this phenomenon as horizontal décalage, meaning that developmental growth can be “spread out” (décalaged) within each period. In this sense, Piaget came to recognize that learning is actually somewhat continuous within a stage. Indeed, development within a stage continues until a kind of equilibrium (as discussed below) is achieved.

The notion of development by relatively discrete stages has always been controversial, and Piaget’s ideas have been questioned
and in some cases, modified, by other researchers. This research is considered in the evaluation of Piaget’s theory, near the end of the chapter.

**Piaget’s Views on Cognitive Growth and Learning**

Before presenting a detailed description of Piaget’s periods and stages, it is necessary to define a few terms that relate to Piagetian principles of learning. These are illustrated with examples from his sensorimotor period.

*Schemes*. As previously seen, Piaget viewed learning as an active process in which the child learns naturally by interacting and experimenting with the environment. *Schemes* are organized psychological structures; they are children’s ways of making sense of the world. (Sometimes the Latin *schema* is used rather than scheme; the plural is *schemata*.) Earliest schemes in the sensorimotor period are simply action patterns based on little more than reflexes, whereas later schemes are less action based and more cognitive.

In Piaget’s view, children are like intuitive logicians or mathematicians. A child forms schemes or mental categories which may be likened to a mathematician’s concept of a “set”. For example, a child develops an “animal” scheme and also forms intuitive rules about what belong in this particular category or set. At first, perhaps, all things that move qualify; but as the child matures and learns more, the schemes are refined: animals may then be (more correctly) things that move of their own volition; they are distinguished from vegetation and inanimate objects. But because this knowledge is at first intuitive, the child cannot yet provide the “rules” by which an object falls into the “animal” category, though the child understands that a dog or cat is an animal, but a windup toy is not. Piaget also believed that such schematization by children did not always depend on language. Children could form rather complex schemes even before they developed strong verbal skills and a large vocabulary.

Often a child can develop a scheme to work out the mechanics of a problem (“plane of action”) but yet cannot verbalize the solution (“plane of thought”) for a number of months following the initial
learning. Piaget called this lag between the two kinds of understanding *vertical décalage*.

**Adaptation.** The first of Piaget’s two kinds of processes for building schemes is called *adaptation* – Piaget’s term, borrowed from biology – for the process of developing schemes through direct interaction and experimentation with the environment. Adaptation consists of two related processes, which he called assimilation and accommodation.

**Assimilation.** In *assimilation* the child uses an existing scheme to cope with new challenges. Assimilation means, literally, taking in and (in a metaphorical sense), “digesting” something. Wadsworth states that “Assimilation is the cognitive process by which a person integrates new perceptual, motor, or conceptual matter into existing schemata or patterns of behavior” (1996, p. 17).

Suppose an infant has developed a scheme for dropping, perhaps following the dropping a toy doll. Parents of small children will note that, as soon as the child recognizes he or she has this kind of power over an object, the child relishes repeating the behavior: a child may find great glee in dropping, or knocking off, objects placed on her high chair’s fold down table – fun for the child, but frustrating for the parent. But yes, this is a necessary part of the child’s learning. It is almost as if the child reasons that if she can drop her doll, she can just as easily drop her spoon or plate. But it is still too early in her development to argue that reasoning (at least in the adult sense) is part of this dynamic.

In this example the child initially had developed a scheme for dropping, which she learned as though by accident. Assimilation occurs when the behavior is generalized to new objects and situations. It expands her learning, because the scheme grows, even though it remains the same basic scheme (dropping), not something entirely new. But in this sense of expansion, cognitive development takes place. This illustration of assimilation is but one of many that could be mentioned. The point is that this type of learning happens
continually in infants; every day brings many new opportunities to expand on one’s previously learned schemes.

**Accommodation.** Accommodation involves the modification of schemes, or the creation of entirely new ones. Thus it requires bigger steps in cognitive learning than assimilation. Consider that baby Bonnie, lying in crib, has learned to pull a toy duck to her mouth, and then enjoys sucking on it. Whereas assimilation would explain Bonnie’s tendency to draw other objects near and to suck on them (say a toy block), accommodation would describe a more elaborate new scheme, in which she must first push away an obstructing object (say a block) in order to grasp the duck.

On prior occasions Bonnie has learned separate schemes for pushing, grasping, pulling, and dropping. (The scheme for sucking is more reflexive than learned.) Now she discovers that she must push the block away first in order to reach the desired object – the duck. In this way, one scheme is built upon another. This new, more complex behavior sequence is a bigger step in learning. Bonnie accommodates by combining two different and previously unrelated schemes – success!

Or consider the example of an older child who has developed mental schemes for “cars” and “bicycles” in that he can correctly categorize these by sight. But when confronted with a motorcycle the child cannot assimilate this vehicle into an existing scheme; he must therefore accommodate by allowing for a new category.

It should be obvious from these examples that assimilation and accommodation are complementary processes. In a day’s worth of learning, the child oscillates between these two processes, first learning acquiring new schemes, then expanding on the repertoire of schemes.

**Equilibrium and Equilibration.** When a child reaches a point at which he is not making such big steps, learning has leveled off, and there is a balance between assimilation and accommodation, the child has reached what Piaget called a state equilibrium. By the end of the concrete operational stage, for instance, the child can easily grasp all
of Piaget’s conservation tasks, and has a clear idea of the concept of reversibility; that is a state of equilibrium. But when a child is ready for new learning, and cannot seem to meet his environmental challenges, a state of disequilibrium ensues, in which the child experiences cognitive discomfort. In other words, the child has needs and is ready to take on more complex tasks, and may in fact be progressing toward a new stage of cognitive development, involving major new accommodations. Equilibration simply refers to the process of moving from a state of disequilibrium to equilibrium.

A Closer Look at the Concept of Equilibration

Piaget’s use of the term equilibration in cognitive development differs from its use in physics, where equilibrium refers to a static state or state of balance between forces. Consider the example of room temperature, which is regulated by a thermostat. If the temperature fluctuates a few degrees higher or lower than is desirable (disequilibrium), it is brought back to its original state by an air conditioner if too hot or by a heater if too cool.

Psychological disequilibrium is similar in one sense, that the “system” (in the case, the child’s need to better understand his/her world) is out of balance, and the existing schemes are inadequate for an understanding of the child’s world. But this disequilibrium is resolved not by returning to the peaceful and contented state of being that the child experienced prior to being faced with a new challenge; instead, equilibrium is only achieved by advancing to a new level of understanding. The child’s sense of disequilibrium is the motivating factor which lies behind the child’s attempts to adapt (through assimilation and/or accommodation). This advancement is only possible through the child’s active engagement with her/his environment in which the child constructs new schemes, which are built on top of older ones. This concept, known as constructivism, contrasts very sharply with traditional learning theory, in which the child is viewed in a much more passive manner (see Chapter 10). But today, the concept of constructivism is widely embraced by cognitive scientists (Wadsworth, 1996). Miller (2016) further notes that Piaget
used equilibration to refer to *three separate processes*, all of which represent different states of equilibrium. These can be summarized briefly as:

**Moment-to-moment equilibration.** In everyday activities, *temporary disequilibrium* occurs from the tension that arises when a child cannot deal with a problem that is beyond his current cognitive limits. But through assimilation and accommodation, the problem is solved (e.g., as in the above example of the obstructing block), and equilibrium is again restored.

**End-of-period (or stage) equilibration.** Equilibrium occurs, for example, at the end of the concrete operations stage, when the concepts of reversibility and decentration are firmly grasped (thus all of the conservation tasks are easily solved).

**General-cognitive-development equilibration.** “The entire course of development can be seen as a process of equilibration as the child proceeds through increasingly ‘better’ forms of equilibrium. The most complete equilibrium is achieved when formal operations bring fully reversible and abstract thought” (Miller, 2016, p. 61).

Miller concludes that “equilibration is the grand process that puts together all of the elements of development. Equilibration integrates and regulates the other three main factors of development: physical maturation, experience with the physical environment, and the influence of the social environment” (2016, p. 61).

**Organization.** *Organization* is the second Piagetian process for building schemes. It is more of a mental process than is adaptation. Rather than learning through manipulation of objects in the environment the child develops new mental concepts – not necessarily verbal ones – that connect existing schemes. Organization is therefore a process of integration. As an example, a child begins to develop a mental concept of distance based on many prior experiences of tossing or throwing and dropping. At a later age the child develops a
more sophisticated concept of distance that he can put into words, representing yet a higher degree of organization.

Just as assimilation and accommodation are two complementary processes that define adaptation, Piaget emphasized that organization and adaptation are also quite complementary, and they are often difficult to separate in practice. In this sense Piaget thought of organization as the *internal* component of cognition and adaptation as the *external* portion.

Piaget’s Periods and Stages

**Sensorimotor Period**

Major periods are listed in Table 4.1. The first period, from birth to about two years, is called the *sensorimotor period* (see Table 4.2 for stages within this period). During this period most schemes are organizations of physical action patterns. Piaget’s (1936/1974) account refers frequently to observations of his infant son, Laurent, and daughters, Lucienne and Jacqueline.

*Stage 1 (to about one month).* Piaget noted that earliest schemes are based on reflexes, or modifications of reflexes based on trial and error. Some basic reflexes include sucking, grasping, and “looking.” Much (though not all) learning is then by assimilation. Piaget very carefully observed (by taking fine physical measurements!) how Laurent learned to find his mother’s nipple. Head movements are at first random, but eventually he can locate the correct breast, and then the correct area of the breast – until ultimately he accommodates, and does not have to have the breast presented directly in order to nurse.

*Stage 2 (1 – 4 months).* A *primary circular reaction* occurs when a chance behavior produces “interesting” results, thus it gets repeated – and eventually becomes a habit, organized as a scheme. Thumb-sucking is an example. A child will try to move its head to reach its fingers, or its fingers to reach its mouth, and by chance eventually manages to coordinate these two separate and very primitive schemes. (Better the hand should reach the mouth than vice versa!) The circularity comes with the repeated attempts, until
eventually success is attained.

Children’s curiosity at this stage is focused on familiar surroundings. Piaget (1936/1974) noted how Laurent looked intently at the hood over his bassinet until he seemed to grasp its contours (these observations actually go on for several days). When seemingly satisfied, Laurent notices other aspects of his crib environment. Here Piaget especially noted that children take a special interest in things that are “moderately novel” – not completely new and strange, nor thoroughly familiar. The object of attention must evidently be slightly discrepant from familiar objects, but not too much so: it must bear some relationship to the child’s existing schemes. “It is not the object per se that attracts attention; instead, curiosity is a function of the relation between the new object and the [child’s] previous experience” (Ginsburg & Opper, 1988, p. 39). The child, it seems, likes novelty and exploration, but must relate his or her experience to the familiar (i.e., to existing schemes).

It is also at this stage that children learn to imitate sounds made by adults – a kind of “vocal contagion” (Ginsburg & Opper, 1988, p. 40). The adult (usually a parent) becomes a model for such imitation. Piaget tried (with eventual success) to make his daughter Lucienne repeat sounds like “aa.”

A child’s reality at this stage consists of the objects that are in plain sight or physical contact. Objects exist in the moment; it is as though they cease to exist when they are out of sight or touch.

**Stage 3 (4 – 10 months).** The baby’s interest in the environment becomes more extended. A hanging mobile becomes an object of fascination, especially when the child can make it move by kicking or touching it. The child produces “interesting effects” by her/his own actions, and delights in the results, repeating the behavior over and over. Because these schemes involve actions that extend away from the child him/herself, Piaget called such schemes *secondary circular reactions*. Although the child learns to anticipate that her/his actions will produce the desired effect, Piaget stopped short of characterizing such behavior as intelligent (the activity has been discovered by trial and error, not through a deliberate attempt to achieve a goal; Ginsburg & Opper, 1988).
**Stage 4 (8 – 12 months).** Infants now learn to coordinate and combine schemes. Behavior becomes more willful, or goal-directed. The example cited earlier (in which a child combines schemes for grasping for her toy duck, and pushing away the obstructing block) illustrates such accommodation.

Another important development at this stage is the concept of **object permanence.** In earlier stages, objects that were not within sight seemed not to exist; but now, a child searches for hidden objects. Hide a toy behind a bigger toy, or under a blanket or sheet. If the child sees the toy being hidden, she now understands that she can reach for it, even though it is out of sight.

**Stage 5 (12 – 18 months).** The child at this stage becomes more intrinsically motivated (i.e., motivated to learn about things for their own sake), without necessarily being encouraged by adults. Piaget termed this interest and willingness to explore **tertiary circular reactions.** On one date in his observation log, Piaget noticed how Laurent experimented repeatedly with grasping toys and objects in his crib, then lifted them at various angles, dropped them, and seemed interested in the differences in the effects that he controlled. Laurent seemed very systematic in these attempts by dropping objects repeatedly from one arm position several times before trying a different position (Piaget, 1952; Ginsburg & Opper, 1988).

**Stage 6 (18 months – 2 years).** It is in this final stage of the sensorimotor period in which **symbolic thought** begins. Piaget did not believe that thinking requires language; in fact, the child’s earliest thought consists of the non-linguistic use of symbols. In an interesting experiment, Piaget (1936/1974; Ginsburg & Opper, 1988) hid a watch chain from Lucienne in a match box. She sees the box drawer open and close, but this action sequence is new to her. Lucienne clearly wants to get the chain from the matchbox, but using existing schemes (turning the box and trying to reach her finger into the opening slit) fail. Piaget then notices his daughter opening and closing her mouth, wider and wider! Then she “gets” the idea of the matchbox drawer opening and closing – she is able to open the slot with her finger, then
she can pull out the watch chain.

The interesting discovery about this observation is that Lucienne seemed to form the concept of a box drawer opening and closing not through verbal reasoning, but by “feeling out” the solution in a physical way – by opening and closing her mouth in order to “symbolize” the needed action scheme.

Increasingly throughout the sensorimotor period the child becomes more adept at imitating models (adults or other children), but at this final stage she becomes adept at deferred imitation (imitating an act that was observed on a prior occasion). Piaget (1952; Ginsburg & Opper, 1988) recounts that his daughter Jacqueline, having observed a boy throwing a temper tantrum, attempts one herself the following day.

The sense of object permanence is now firmly established and the child can infer the location of objects following several displacements. As an example, Jacqueline visually follows Piaget’s movements in hiding a pencil. First, he moves his hand (holding the pencil, which is concealed) behind a beret, then behind a handkerchief, and finally behind a jacket. She actually last viewed the pencil when Piaget concealed it in his palm. But to find the pencil she goes directly to the final location (Piaget, 1936/1954; Ginsburg & Opper, 1988).

Preoperational Period

The young child at this stage is able to form symbols – mental representations of ideas and events although they are not very logical or well organized. Piaget believed that children form their first mental symbols as extensions of physical imitative gestures. In the last stage of the sensorimotor period the example of Piaget’s daughter Jacqueline imitating the mechanics of a matchbox with her mouth (see above) was an example of deferred imitation; it was for Jacqueline a primitive kind of mental representation of a particular behavior. Note that there is nothing conscious about such a representation; the child does not have to be aware of a concept that she has formed in order to make use of it (in Jacqueline’s case by mimicking). In time such physical action sequences become less pronounced and more subtle – the muscle movement may become
faint – until the concept itself becomes completely nonphysical: the child merely imagines the physical motions.

Table 4.1  
Piaget’s Periods of Development

<table>
<thead>
<tr>
<th>Period</th>
<th>Brief Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensorimotor</strong></td>
<td><strong>Approximate ages:</strong> Birth to 2 years. <strong>Cognitive processes:</strong> Schemes are related to reflexes and basic action sequences. <strong>Key terms:</strong> Circular reactions, object permanence.</td>
</tr>
<tr>
<td><strong>Preoperational</strong></td>
<td><strong>Approximate ages:</strong> 2 to 7 years. <strong>Cognitive processes:</strong> Thought is unorganized, illogical. <strong>Key terms:</strong> Egocentricity, centration, irreversibility.</td>
</tr>
<tr>
<td><strong>Concrete operations</strong></td>
<td><strong>Approximate ages:</strong> 7 to 11 years. <strong>Cognitive processes:</strong> Thought is more logical, but very concrete. <strong>Key terms:</strong> Reversibility, compensation, conservation, class inclusion.</td>
</tr>
<tr>
<td><strong>Formal operations</strong></td>
<td><strong>Approximate ages:</strong> 11 to adulthood. <strong>Cognitive processes:</strong> Capable of truly abstract thought. <strong>Key terms:</strong> Hypothetical thinking. Abstract logical reasoning.</td>
</tr>
</tbody>
</table>

**Semiotic Functions.** Mental representations of physical movements increase in the preoperational stage and they also become more sophisticated. Piaget referred to such representations as *semiotic functions*, in which a word, or a mechanical motor sequence, or visual image (called a *signifier*), comes to stand for an object or event. There are two kinds of signifiers: *signs* and *symbols*. Signs are merely labels or images that do not in any way represent the object or
event being conceived. For example, there is nothing inherent in words like “tree” or “animal” that represent these objects; these words are merely names. On the other hand, symbols have some lingering quality of that is inherent in the concept; a visual image of an outline of an animal, bird, or cloud, for instance, is a kind of symbol. Mental symbols (unlike some signs) are personal, whose meanings are not shared or communicated with others. Note that in these examples no language is needed in order to form a concept. In this sense Piaget believed that thought preceded language, and indeed, that children’s rudimentary thinking is not at all dependent on language development.

Egocentricity. Egocentricity refers to the child’s inability to see (or more generally, to perceive) the world from the perspective of another. It is not used in the ordinary sense to denote self-centeredness.

Egocentricity is demonstrated in Piaget’s “three-mountain” experiment. A three dimensional scene is arranged on a table which consists of three sculptured mountains of different sizes and colors, and each has a different symbol at the top of the peak (snow capped peak, house, or cross). A doll is placed on one side of the table, and then the child – who is placed on a different side – is asked to report what the doll sees. The preoperational child typically reports the view from his own perspective, not from the doll’s.

Young children at play do not communicate well; they appear to be engaged in a “collective monologue” instead of a true dialog. They lack the imagination to understand how the other children perceive them or others. It is not until the next (concrete operational) stage that children develop what developmental psychologists call a theory of mind (Flavell, 2000). In other words, they can’t imagine what someone else is thinking, what motivates them, or how they perceive the world.
### Table 4.2
**Stages Within the Sensorimotor Period**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Approximate Age</th>
<th>Cognitive Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 – 1 month</td>
<td>Earliest schemes are based on reflexes.</td>
</tr>
<tr>
<td>2</td>
<td>2 – 4 months</td>
<td>Primary circular reactions. Curious about familiar aspects of environment. Imitates sounds made by adults.</td>
</tr>
<tr>
<td>3</td>
<td>4 – 10 months</td>
<td>Secondary circular reactions.</td>
</tr>
<tr>
<td>4</td>
<td>10 – 12 months</td>
<td>Coordination of secondary schemes. Beginning sense of object permanence.</td>
</tr>
<tr>
<td>5</td>
<td>12 – 18 months</td>
<td>Tertiary circular reactions; intrinsic motivation.</td>
</tr>
</tbody>
</table>

**Thinking.** The preoperational child’s reasoning is *semi-logical*. The child has difficulty generalizing or doing any sort of deductive reasoning. Thoughts are loosely linked and illogical, as when Lucienne reasoned that, because she did not have her afternoon nap, it could not be afternoon (Piaget, 1929/1951)! Centration also illustrates the limitations on the child’s cognitive abilities. As more specific manifestation of centration is the inability to grasp the concept of reversibility (e.g., how to mentally reverse the pouring of water from one container to a different sized one in the water level conservation task per Figure 4.1).
Morality. The child fails to grasp the importance of intention in behavioral transgressions. In Piaget’s example, a preoperational child thinks that accidentally breaking 15 cups is more culpable than intentionally breaking one: “more is worse.” Examples like these are important for Piaget’s theory of moral development (discussed more fully in Chapter 7), but they also demonstrate, in a way, both egocentricity (especially regarding the lack of a theory of mind) and rigidity of thinking.

How Do Young Children Conceive the World?

How does a young child perceive the world? Most of us can’t recall our own early childhood but Piaget (1929/1951) provides a brief overview of the child’s conception of reality in the quotation that begins this chapter. To discover the ways in which the child perceives reality Piaget used one of his favored techniques – simply questioning children about themselves and their views on nature, adults, and other objects and events in their daily lives as seen from their point of view. From these interviews he and his colleagues identified characteristics of young children’s thinking and how the child’s conceptions of reality differ from those of older children and adults. He identified three important concepts in children’s thought which he termed realism, animism, and artificialism. Each is discussed briefly in this section. (As an interesting exercise, readers might try to imagine viewing the world themselves as children do while reading this section!)

Realism

Realism is the failure to recognize the existence of a self that is separate from this external world; hence “regarding one’s own perspective as immediate and absolute” (p. 34). Realism in the child
represents a kind of ultra-naïve conception of reality in which there is not only no self-awareness but also no distinction between the subjective and the objective. There is no awareness that the perception of others differ from one’s own. This is thus another example of the kind of egocentricity that characterizes pre-operational children. Young children have only a very rudimentary grasp of the very notion of thought, and probably none of the ideas of mind or brain (i.e., they lack a theory of mind.)

When asked about thought, the child at this stage is likely to identify thinking with the mouth, or with speech. Thus language is implicated in the child’s conception of thought. In fact, Piaget claims that for the child, “...to think is to speak – either with the mouth or with a little voice in the head...” (p. 60).

The young child also fails to distinguish the name of an object (sun, moon, tree, etc.) from the object itself, hence the child is unable to appreciate the arbitrariness of language, perhaps even until the ages of 9 to 11 or so. It is also as though the name of a thing belongs exclusively to that object. The child sometimes fails to understand that names can arbitrarily be changed (e.g., if people began to refer to the Earth as Mars it could not possibly still really be the Earth). Piaget referred to this phenomenon as nominal realism. Piaget concluded that “The child is a realist, since he supposes thought to be inseparable from its object, name from the things named, and dreams to be eternal” (p. 124).

Piaget states that preoperational children seem to believe in the reality of their dreams: they are “real” at one moment (while asleep), but gone the next (after awakening). The boogeyman in the room was really there, but now he’s gone. And they seem to think that adults as well should have privy to their dreams (“didn’t you see it too, Mom”)?

Actually, Piaget believed that there were three stages in children’s conceptions of dreaming. In the first, dreams seem to come from outside the child and remain external. In the second stage the dream seems external, yet the child realizes that it arises within him/herself. In the third stage the child realizes that the dream arises within and is entirely an internal phenomenon.
Animism

Animism refers to the attribution of human characteristics such as feelings, thoughts, actions, and intentions, to non-living objects. Objects that move, such as clouds, the sun and moon, or toy trains and trucks, all may be given such attributes by young children.

Here is an example of a dialog between one of Piaget’s assistants and a young child (p. 197):

Q: Are you alive?
A: Yes, because I’m not dead.
Q: Is a fly alive?
A: Yes, because it’s not dead.
Q: Is the sun alive?
A: Yes because it makes it daytime.
Q: Is a candle alive?
A: Yes, because you can light it.
Q: Is the wind alive?
A: Yes, because it makes people cold …
Q: Are clouds alive?
A: Yes, because they make it rain …

With questions like these concerning the “life” in various objects, Piaget noted that the youngest children (about ages 4 to 6 or 7) first associate life with activity of any kind, then as they mature, with movement generally (roughly ages 6 to 8), and finally only with animals and plants (from about age 8 onward). The age ranges cannot be precisely given because there is so much maturational variation among children.

Artificialism

For Piaget, “[Artificialism] consists in regarding things as the product of human creation, rather than in attributing creative activity to the things themselves” (p. 153). That is why when children ask such questions as “Who made the sun?” or “Who is it makes the stars twinkle?” (p. 256), it becomes clear that children simply assume that “someone” is responsible for such things. Children also often ask such questions about the origins of trees and mountains or the weather,
such as it is on a given day. A child is likely to assume that a lake or sea has been carved out or created by an act of some being.

**Relationship to Egocentricity**

All three concepts – realism, animism, and artificialism – clearly reflect the young child’s egocentric perceptions of the world. Perhaps this is most evident in the case of realism, in which the child is simply unable to separate her/his own self from the rest of what constitutes his or her reality. In the case of animism, the child believes that other objects, people, or animals, all function mentally in the same way as he or she does. With artificialism, the belief is that things have been made not by the child, but by “us,” or other people, who by implication from the child’s egocentric perspective, are in fact like him or her.

**Concrete Operational Period**

*Conservation Tasks.* During this period thought becomes more logical, but is still quite concrete. The child who, toward the end of this stage, has achieved equilibrium can easily solve all of the conservation tasks (Figure 4.1). In the water level problem considered earlier, for example, the child is able to see more than one aspect of the problem (lack of centration), and clearly understands that the process is reversible: when the water is poured back into the original container the quantity is preserved. This understanding also involves the complementary process of *compensation*, or being able to see that the water amount in the second container is the same because the container is wider rather than taller, thus compensating for the fact that the level is lower than in the first container. Another related concept the child attains in this period is that of *identity*. The notion is that, since nothing has been added or removed, the quantities in the two containers must remain identical. In summary, reversibility, compensation, identity, and lack of centration all characterize the child’s mental schemes during this period. Once again it is worth noting that Piaget believed that children were able to grasp these
concepts intuitively and on their own, through experimentation.

**Socialization and Egocentrism.** In interacting with other children, youngsters learn cooperation and compromise, as the collective monologues that characterize preoperational children become more like dialogs as the child grows into the concrete operational period. Disputes and arguments between children are just a natural part of the process, ultimately enabling them to be able to see another’s point of view. Piaget (1924/1972) believed that these social interactions between children were particularly important in learning to overcome egocentrism.

**Class Inclusion.** The child at the concrete operational stage also begins to understand part-whole relations. Here is a problem posed by Piaget and Szeminska (1941/1952). A child sees that there are 20 brown and 2 white, wooden beads. He asks the child whether there are more brown beads or more wooden beads. A preoperational child of about 7 years of age will, curiously to adults, typically state that there are more brown beads. It is only at around eight years, in the concrete operations stage, that children can deal effectively with such problems of class inclusion (or part-whole relations). Once again, the problem with the preoperational child is centration, or the inability (in this case) to focus on the dual aspects of the situation: they cannot deal simultaneously with the parts of the situation and the whole.

**Logical Relations.** Children in this period are also capable of understanding some kinds of logical relations, such as order relations. Suppose Ann is taller than Mick, but Mick is taller than Betty. A child at the concrete operational stage can reason (unlike the preoperational child) that Ann is also taller than Betty.
Formal Operations

Most teachers would hesitate to attempt to teach algebra or geometry to children who are in the concrete operational stage. They have some necessary arithmetic skills, but they lack the ability to handle abstraction (“Let X be an unknown quantity”) or hypothetical thinking (“Suppose cats glowed at night. How would this affect mouse ecology?”). Hypothetical (or propositional) thinking involves the ability to see possibilities, including abstract ones. Logical reasoning before this period is also rudimentary. A preoperational child might have difficulty understanding formal logic, as in this syllogism:

All psychology classes are interesting;
Statistics for psychologists is a psychology class;
Therefore, statistics for psychologists is interesting.

(Note that one is not asked to evaluate the actual truth of the premises; the task in deductive reasoning is to determine the validity of the conclusion given the truth of the premises.)

At a further level of abstraction, a student of logic at the formal operational stage might see that the following argument is valid:

All pamlings are swerlies;
A gravine is a pampling;
Therefore, a gravine is a swerlie.

Note that the level of abstraction is compounded here by referring to objects or beings such as “swerlies” that are “made up” and have no basis in reality. Hypothesizing the relations between such abstract – and in fact, nonexistent – objects requires quite a conceptual leap from the understanding of relations between tangible objects at the concrete operations level.

For Piaget, the adolescent’s reasoning is very much like a scientist’s: she can grasp abstract concepts, reason logically, and imagine hypothetical outcomes to experiments. She can reason not only concretely (as with relations between physical objects; think of conservation tasks) but abstractly (as with relations between ideas).
Egocentricity further decreases as well; not only can Rudy imagine what Jose might be thinking about him, but he can imagine that Jose is wondering what he is thinking about him (Jose) as well.

**Adolescent Egocentricity.** At each stage of development the child (and later, adolescent or adult) becomes less egocentric. However, adolescents still tend to be more self-focused than adults. Particularly in the early teenage years youngsters tend to exaggerate their own importance, or become excruciatingly self-conscious, thinking that others notice every physical blemish or shortcoming. Acne can be embarrassing, but is the appearance of a tiny pimple enough to ruin one’s day? Elkind and Bowen (1979) refer to this kind of self-consciousness as concern for an *imaginary audience*. It is the belief that one is the center of other’s perceptions.

It’s great for teens to have ambitions to succeed in life and to hope to excel at some form of work or activity. But Elkind (1994) also notes another form of adolescent egocentrism that he calls the **personal fable**, in which teens imagine that they will have extraordinary destinies and change the world in radical ways. A teen might, for example, believe he or she is destined to become a great actor, scientist, or political reformer. A slightly different form of this is generational: “they” – meaning older generations – have mucked things up pretty badly. “We” – meaning “our” teenage generation – will have to fix this mess. (But then, who would not hope otherwise?)

**Educational Implications**

Quite obviously, Piaget thought (as did Rousseau and Maria Montessori, founder of the Montessori schools) that children learned best by experimenting for themselves. Recall that, in his early experiences with intelligence testing, Piaget was more concerned with the way that children solve problems than with whether or not they arrived at a correct solution. To take this a step further, struggling with a problem can in itself be seen as learning something, even if it is not the answer to the problem one began with. Teachers who are influenced by Piaget thus tend to believe that quality learning comes
from being challenged naturally by problems, motivated intrinsically by curiosity, and attempting different solutions through experimentation. The Piagetian classroom is thus child centered, rather than being knowledge centered: solutions to problems should come from the child, not from the teacher. Learning is, for the child, an active process of discovery.

Also, the tasks presented to the child should be appropriate for that child’s level of development. Readiness is an important factor in that one should not try to teach concepts that are beyond the child’s period or stage of development (the child himself will learn such concepts when he is ready).

Needless to say, this approach is in very sharp contrast with educational practices in many (or perhaps most) schools. Many schools use a more Lockian model, in which learning is gradual, based on small increments of knowledge, with much of this based on rote memorization. Contingencies (external rewards and punishments) are also employed in the Lockian model; in other words, motivation is largely extrinsic rather than intrinsic. Such a model is also compatible with the behavioristic tradition in psychology (as will be seen in Chapter 10).

Evaluating Piaget

The Concept of Developmental Stages

Models of development (as was seen in Chapter 1) vary with respect to the notion of stages. Piaget began with a very structured model in which discrete periods or stages characterize different levels of development. As his work progressed, he recognized that horizontal décalage not only occurred, but was also very commonplace, so that stages themselves were not entirely discreet.

Other psychologists – notably those in the behaviorist (or Lockian) tradition (Chapter 10) – believe that learning is a more or less continuous, incremental process. It may be characterized by sudden leaps of learning – times in which new learning seems rapid and accelerated – but this does not (for them) necessarily imply that discrete stages are anything more than points at which the child’s
nervous system matures enough to handle such bursts of learning.

A little thought suggests that both positions can be true in their own way. If one thinks in terms of the gradual and incremental increase in knowledge that takes place in factual learning (e.g., spelling; ordinary arithmetic), then the traditional position is reasonable. But if one considers instead the kind of learning espoused by Piaget, in which a reorganization of mental processes permits the learning of tasks that were previously unattainable, then the Piagetian position seems tenable. One must, of course, grant that the phenomenon of horizontal décalage makes this stage approach seem less like an abrupt shift in mentality than a somewhat more gradual one. But this still does not discount the notion that thinking becomes reorganized; and when equilibration occurs at the end of each period, the process of reorganization can be said to be consolidated, per Piaget’s theory.

Gelman and Baillargeon (1983) have raised doubts about the notion that stages always unfold in the invariant sequence that Piaget postulated. Such criticisms raise serious concerns, though they are not necessarily fatal, for Piaget’s theory. Still, psychologists today view cognitive development as somewhat more continuous than did Piaget.

**Piaget’s Methodology**

Potential weaknesses in Piaget’s methodology have already been discussed: his research was based on clinical observations of a few case studies with small samples, and lack of statistical analysis. Piaget did do experiments (especially on his own children), but these were in no sense tightly controlled experiments.

The value of clinical research using case studies is never clear until the findings can be shown to hold using more traditional, experimental techniques with tight controls, and a sufficient number of cases to allow generality. Greater sophistication is also needed in providing improved measurement techniques (standardized psychomeric tests; e.g., of conservation tasks). Many examples of theories based on case studies will be seen later in the text, including the chapters on Freud and the ethologists. In the case of Freud, results seem mixed to say the least. The ethologists, however, have made
some valuable contributions that are experimentally verifiable. Piaget, too, was a shrewd observer whose observations have largely been verified. That Piaget has generated so much research is a great testament to him. This is true even when his theories required modification (as Piaget did himself); indeed, that is the way that scientific progress is made.

Some experimental research places certain Piagetian notions in question (see next section), but experimental research has largely favored at least some form of his stage sequences. Fleming and DeAvila (1980, p. 73) state: “It is inevitable, perhaps, in the evolution of scientific theory that insight [per Piaget’s clinical observations] is gradually supplanted by refinement, as measurement assumes a greater and greater role.” They suggest some precise psychometric and statistical methods to use for testing Piagetian stage sequences, including décalages within periods.

Are Children Smarter Than Piaget Thought?

Can They Be Taught Beyond Their Level?

Recalling the “three mountains” egocentrism experiment, in which a child cannot see a scene from a hypothetical other’s perspective, when researcher use more familiar objects and explain the task more clearly to the child, then children at a much younger age are able to view things from another’s perspective (Baillargeon & De Vos, 1991; Borke, 1975; Gelman & Baillargeon, 1983). Thus, the task may have simply been too difficult, involving too many complexities for some children, who nonetheless seem less egocentric at an earlier stage (perhaps as early as four years) than Piaget originally thought. (This does not mean that young children are not egocentric, only less so than Piaget thought.)

Although it is very difficult to teach children conservation tasks while they are still operating at the concrete operational level, Gelman (1969) nevertheless had some success with conservation of length and number. However, the training was extremely intensive, lasting a couple of days, and not all the children could learn the tasks. But Crain (2005, p. 144) wondered “whether such methods accurately
reflect the ways in which the children master conservation in their daily lives…When children solve problems on their own, they gain confidence in their abilities to make discoveries.”

**Are Stages and Periods Truly Universal?**

It may be that people in tribal or isolated agrarian communities never actually reach formal operations. Even in our own culture, it may be that people who drop out of school early to work at a job that makes few cognitive demands never reach this stage. This does not mean that this final stage is out of their reach, but only that they may have no need for such abstract thinking. In some ways, this fact presents a problem for Piaget’s theory in that he believed that children and adolescents advance from one stage to the next largely through their own natural experience. In the case of formal operations, however, it seems likely that cultural and societal demands may play a significant role in the adolescent’s advancement. As will be seen in Chapter 5, Vygotsky better addressed the issue of culture on development.

**Did Piaget Undervalue Social Factors in Cognitive Development?**

As already seen, Piaget believed that social interactions among children helped them to overcome their egocentric tendencies. Beyond this, Piaget may have missed further opportunities to discover how interactions with peers and with adults can facilitate development. In the chapters on moral and sociocultural development, it will be seen how theorists like Kohlberg and Vygotsky filled some of this void. As for Piaget, perhaps it is enough that he stuck to cognitive development: one theorist can only do so much in a lifetime! Of course Piaget did concern himself mainly with cognitive development, and not with personality and social development, topics which occupy separate sections of this textbook. But the domain of cognitive development is certainly important enough to merit a grand theory of its own.
The Future of Cognitive Development

The Neo-Piagetians and Information Processing Theory. Piaget’s psychology was largely (though not entirely) descriptive, but his observations were quite accurate; and they were very sophisticated. However, he did not discover the mental mechanisms that would show how children’s learning is structured, nor did he entirely explain the different strategies that children employ in attempting to solve problems. Such tasks were left to others, particularly the Neo-Piagetians who tried to link mental structures to brain development and task analysis: the examination of the strategies employed by children in solving problems. Robbie Case (1998), Kurt Fischer (1980), and Juan Pascual-Leone (1970) are notable among them. Their ideas flow naturally into an information processing approach to knowledge acquisition, which employs a technological analogy in which the person is seen as a processing system (like a computer; see Munakata, 2006, for a review of the more general information processing approaches). Information processing theorists analyze sensory input, mental processing, and neuronal or behavioral output: how information is coded, transformed, stored in human memory; and how it is retrieved, are aspects of the tracking problem for the flow of information.

Cognitive Science. Closely related to the information processing approach is cognitive science – the two areas overlap, but the latter is more focused on brain physiology. Frank Keil (2006) reviews research on cognitive development from the interdisciplinary field of cognitive science, which includes theory and research from the fields of: “psychology, linguistics, computer science, neuroscience, anthropology, and philosophy” (p. 609). Developmental science has benefited from the convergence of findings from these varied disciplines, but Keil believes that the next decade or so will lead to new and productive ways of viewing old problems, with new answers to old questions.

Culture and Cognitive Development. Piaget, Lawrence Kohlberg, and other theorists have proposed that some stages of development
are universal, cutting across cultural boundaries. This proposition needs further support, or perhaps even disconfirmation.

**Piaget’s Positive Contribution**

Piaget remains a giant in the study of cognitive development, and the evaluation of any other work in the area inevitably begins with a comparison to his work. Piaget’s approach was thoroughly original, and though some of his ideas seem flawed or in need of revision, his influence on developmental science cannot be overstated. In commenting on this influence, David Myers observed, “Piaget would not be surprised that today, as part of our own cognitive development, we are adapting his ideas to accommodate new findings” (2004, p. 145). Piaget’s influence will continue, no doubt, for generations to come.

****
For Thought or Discussion

1. Looking back on your reading of this chapter (and perhaps anticipating Chapter 13 on Attachment Theory), which of Piaget’s findings would make you believe that a child needs some sense of consistency and familiarity in his/her environment in order to feel secure?

2. Many psychologists (including Piaget and Freud) have based their theories on their observations of clients or of children. How can this approach be justified when compared to a more experimental approach, in which specific hypotheses are tested in a controlled environment on a number of people, with statistically significant results?

3. In what sense are Piaget’s periods of cognitive development really “qualitatively different”? (Give at least one example.)

4. Consider this joke about a transaction at a pizza parlor:
   Customer: Give me a large pizza, please.
   Clerk: Shall I cut it into six or eight slices?
   Customer: Better make it six – I’m not hungry enough to eat eight.

   At which period of development would a child first be able to truly appreciate this joke? Why?

5. Have you ever seen young children playing together who are engaged in a “collective monologue”? If so, recount your experience. How were conflicts between them (if any) handled?

6. Can you see any problems with the Piagetian approach to classroom learning in grade school as compared to the traditional (Lockian) approach? What are arguments in favor of each (think in terms of your own educational experience, or of your children’s).

7. After the Soviet Union launched Sputnik, the first satellite to orbit the earth, educators believed that our falling behind in the “space race” was due in part to the failure of our educational system. As a consequence, schools began teaching the so-called “new math” in which children learned not just ordinary arithmetic, but the abstract set theoretical principles that underlie mathematical theory. Piaget could have predicted the resulting failure, but why is this so?
Notes

2. When he first visited America in 1921, it was said that Einstein’s work could only be understood by 12 living people (Paterniti, 2000). Piaget, like Einstein, was unquestionably brilliant, and though he wrote succinctly he, too, can be difficult reading (Inhelder, 1988). Piaget was so busy revising and extending his theory that he seldom stopped to try to pull it all together for the reader. I try to give a proper introduction to Piaget, and one that is lengthier than that of the average beginning textbook – but one could write an entire chapter on the stages of sensorimotor period alone. For an advanced treatment the reader is referred to Piaget’s original works (especially Piaget, 1936/1974, 1936/1954); to Ginsburg and Opper (1988); or to Flavell, Miller, and Miller (2001).

3. Here as elsewhere, Piaget seems ahead of his time: note the importance of modeling in Bandura’s social learning theory which comes much later in the history of American psychology (per Chapter 11).

4. The term “circular reaction” was coined by the American developmentalist James Mark Baldwin, whose work influenced Piaget, who frequently cited Baldwin in his writings.
5. Vygotsky’s Sociocultural Theory of Development

Instruction is good only when it proceeds ahead of development. Then it awakens and rouses to life an entire set of functions which are in the stage of maturing, which lie in the zone of proximal development. It is in this way that instruction plays an extremely important role in development.

– Lev Vygotsky

Vygotsky managed to tie various strands of inquiry together into a unique approach that does not separate individuals from the sociocultural setting in which they function. This integrative approach to social, semiotic, and psychological phenomena has substantial relevance today, a half century after his death.

– James Wertsch

Vygotsky and Cultural Psychology: A Natural Fit?

True to our Western tradition of individualism, American psychologists have, in the past, focused on the person – his or her personality, perceptions, thoughts, attitudes, and behavior. This is especially true in the study of personality development, from which many of the major developmental theories in this text have originated. This orientation can be contrasted to other cultures which stress the importance of the collective nature of existence – the interdependence of people (as opposed to their independence) within the family, community, work group, and in the wider culture (Markus & Kitayama, 1991; Triandis, 1995). This Western emphasis on the individual was true of Piaget and Kohlberg, as well as most of the theorists encountered in later chapters of this book, most of whom developed their ideas in the early to mid-Twentieth Century.

Contemporary psychology has undergone a shift in focus prompted by cultural studies of psychology, helped along by psychologists and anthropologists such as Shinobu Kitayama, Hazel
Markus, Edward Sampson, Richard Shweder, Harry Triandis, and many others. Cross-cultural psychology studies the ways in which cultures differ along psychological dimensions such as personality traits, views on morality, or scholastic aptitude; but the newer field of cultural psychology introduces a break from this tradition: cultural psychology seeks a pluralistic perspective on different cultures, or in other words a psychological understanding of individuals within a culture from what is understood about that particular culture – it is the view from a within-culture perspective, as opposed to the view from without. As an example, a cultural psychologist would not take a model of moral development like that of Kohlberg, which was developed in our own culture, and attempt to see how it applied to another (say rural India). Shweder and others (2006) “…describe the different moral development pathways and patterns of moral judgment for children in societies privileging an ‘ethics of autonomy’ [such as ours] (where individualism, having the things you want, and harm, rights, and justice concepts predominate) in contrast to societies privileging an ‘ethics of community’ [such as Japan, or many other Eastern cultures] (where notions of duty, sacrifice, loyalty, and hierarchical interdependence and other social roles based on communitarian morel concepts predominate) …” (p. 721).

Lev Vygotsky, a Soviet psychologist, lived and wrote in the early Twentieth Century but his impact on the field (at least in the U. S.) had to wait until the times were right for acceptance of his views. Even then Vygotsky favored a sociocultural approach to the study of the individual. Here Vygotsky seemed far ahead of his time, as his ideas are compatible with (though not identical to) those of cultural psychologists today, as well as with the individual in context model of human development discussed in Chapter 3. For Vygotsky, development occurs in a context that differs from one society to the next – and cannot be completely understood apart from such contexts. For it is one’s culture that determines what skills must be learned for successful adaptation and one’s culture that determines the strategies for acquiring these skills; and of course the same can be said of social classes within a culture.

Though an English translation of Vygotsky’s (1934/1962) Thought and Language was available in the U. S. in 1962, it wasn’t
until late in the Twentieth Century that American psychology was truly receptive to his work. His sociocultural perspective today fits nicely in an ever shrinking, global world community – one in which cultural diversity is a fact of life. But perhaps because he was Russian, or perhaps because he didn’t fit into the behaviorist paradigm that dominated psychology during the early 20th century – Vygotsky’s work, like Piaget’s, was not given much attention here during this period, which for Vygotsky meant that he was not recognized in the U.S. during his own lifetime.

Before expanding on Vygotsky’s views it is helpful to introduce some biographical background in order to better appreciate the influences on his thinking.

**Biographical Background**

Vygotsky was a Russian Jew, born in 1896 – the same year as Piaget. Vygotsky advocated Marxism, even to the point to which he attempted to restructure psychology to reflect Marx’s philosophy. But still he encountered troubles in the Stalinist era for several reasons. For one, he was informed and influenced by Binet, Piaget, and other Western, non-communist writers whose works were considered decadent and “bourgeois” by the Stalinist state. Also, he believed that urban students scored higher on intelligence tests because these students experienced a richer, more varied childhood. Such a view was contrary to the communist ideal of the purity of the working class. As with many other intellectuals of this era he was a victim of Stalin’s purges, though his banned writings still circulated surreptitiously. This ban seems particularly ironic, as Vygotsky was himself a strong believer in Marxism and its application in psychology.

As a young man he was fortunate to be selected to attend the University of Moscow because of the prevalent anti-Semitism in tsarist Russia in those years (prior to the revolution), and although he was well-qualified, only 3% of the student body was Jewish due to a quota system. As it happened he was accepted by chance as the University employed a lottery system for their Jewish applicants.
According to James Wertsch (1985) Vygotsky’s substantial intellect was noted very early in life. His family held intellectual discussions over the samovar during their evening tea. At age 15 he was dubbed “the Little Professor” because he had so much influence over other students. He loved philosophy and debate, and was extremely well read. According to Wertsch “he examined the historical context of thought by arranging debates and mock trials in which his peers played the role of figures such as Aristotle and Napoleon” (1985, p. 4) – quite a remarkable undertaking for someone of so young! Later he would be dubbed “the Mozart of Psychology” because his contributions in his youth were enormous. But also like Mozart, he died a young man: unfortunately, Vygotsky suffered from tuberculosis and died at the age of 37. He worked very hard on his research, perhaps even harder than most because he knew his time was limited. He may, indeed, have worked himself into his grave! One can only imagine how much more he might have achieved had he lived a normal lifespan. But his work was continued by his students, A. R. Luria and A. N. Leontev following his death.

Luria (1979, pp. 38-39; quoted in Wertsch, 1985, p. 8) reflecting on both Vygotsky’s intelligence and his charismatic impact on others, stated:

[W]hen Vygotsky got up to deliver his speech [at a psychoneurological conference in Leningrad, 1924], he had no printed text from which to read, not even notes. Yet he spoke fluently, never seeming to stop and search his memory for the next idea. Even had the content of his speech been pedestrian, his performance would have been notable for the persuasiveness of his style.
Culture and Intelligence

It can be difficult to define intelligence (Chapter 6) independently of culture, for what is considered “smart” in one cultural setting may be quite different from another. As noted, Vygotsky found differences in measured intelligence between rural and urban students. Why? One might argue that farming requires less intelligence than, say, accounting, and far less schooling. So differences in education level can explain some differences in IQ scoring, as can differences in experience. Alternatively, farming might require a different type of intelligence than what is required for success in an urban environment.

In “Guns, Germs, and Steel” Jared Diamond (1999), a cultural anthropologist who spent over 30 years in Papua New Guinea (as well as many years other parts of the world) claimed that his friend Yali, a local politician from that country, was as intelligent as anyone he knew—though Yali probably would not score as highly intelligent on a Westernized IQ test because the latter fails to measure the intellectual skills needed to thrive in Yali’s culture.

In Diamond’s words (p. 2): “From the very beginning of my work with New Guineans, they impressed me as being on the average more intelligent, more alert, more expressive, and more interested in things and people around them than the average European or American is. At some tasks that one might reasonably suppose to reflect aspects of brain function, such as the ability to form a mental map of unfamiliar surroundings, they appear considerably more adept than Westerners. Conversely, I am constantly aware of how stupid I look to New Guineans when I’m with them in the jungle, displaying my incompetence at simple tasks (such as following a jungle trail or erecting a shelter) at which New Guineans have been trained since childhood and I have not.”

Interesting Fact: According to Diamond there are over 6,000 languages spoken around the world. Of these, over 1,000 are spoken in New Guinea.
Marxist Influence

Marx looked to history, which he regarded as a dialectic process in which conflicts arouse and were resolved in a Hegelian evolution of change. For example, innovation led to industrialization so laborers were forced from farms to factories. Marx believed that societies changed in response to economic changes. His compatriot Engels thought that technological development depended on creation of new tools. He thought that speech developed in response for the need for better communication as an accompaniment to technical advances (Crain, 2010).

Crain states that, following Marx and Engels, Vygotsky believed people developed mental tools, which he referred to as “signs.” These included speech, writing, and mathematics, all of which are quite abstract. Cultural sign systems impact cognitive development, a point which was overlooked by Piaget and the developmentalists, who saw development as coming mainly from within the child due to maturational processes (e.g., Gesell, 1954; or through spontaneous discovery (Piaget and Montessori).

Vygotsky believed that after age two or so, development is strongly influenced by cultural sign systems. These are not acquired naturally but through instruction. What a child learns in a technological culture will surely differ from what a child learns in a pre-technological culture. Thus Vygotsky was both a developmentalist (he agreed with much of Piaget) and culturalist.

While it is informative to understand the ways in which Marx and Engels influenced Vygotsky, it is also important to understand that one not need espouse a Marxist philosophy in order to accept Vygotsky’s contributions: They stand firmly on their own.

Speech and Language

Children’s Speech

When children talk to themselves aloud Piaget referred to this as egocentric speech because the purpose was not really to communicate with others. Two small children playing together might both be speaking but simultaneously, to one another. Was there any value to this egocentric speech? Vygotsky differed from Piaget in that he
believed that such speech helped children to reason and solve problems. Moreover, the ultimate fate of egocentric speech was for Vygotsky the development of thinking, as “outer dialog” progresses to become “inner dialog” (Vygotsky, 1930/1978). Vygotsky noticed that young children used speech to “give commands to oneself” (e.g., “Karen goes to pick up kitty.”) Vygotsky preferred to speak of private speech, as opposed to egocentric speech.

**Verbal Self-regulation**

Verbal self-instructions play an important role in superego development. Using private speech a child may self-admonish; for instance a girl might say to herself “Mandy takes a nap now so she gets enough rest and not be cranky,” which are the very instructions she has heard her mother repeat on numberless occasions.

The other side of superego development, the Freudian ego ideal, requires learning that delay of gratification is often necessary for personal growth to take place. This is the development of will power. A child (or an adult) can “instruct” herself on how to behave in a given circumstance, again using silent speech, or even talking to oneself aloud (“I will watch TV for an hour, then I must go right to work on my homework assignment.”)

**Zone of Proximal Development and Scaffolding**

These are among Vygotsky’s most important concepts, which explain the influence of others on the child’s cognitive development: Adults, older siblings, and especially teachers. Vygotsky strongly believed that children learn not only through the natural course self-discovery, but more importantly, of assisted discovery.

The zone of proximal development represents a range of tasks that lie just beyond the child’s reach, if left on his own. But with guidance and support from an adult the child learns to make that reach, by scaffolding, or cuing the child with suggestions and hints, yet allowing the child to make the final reach himself. This requires an intersubjective understanding of the task, in which two people take on a task with each having a different understanding of the task, but with the goal of arriving at a shared understanding.
Figure 4.1: Child’s jigsaw puzzle.

Example. Fig. 4.1 shows a puzzle (from the author’s childhood) depicting a cartoon helicopter. The very young child is being encouraged by his parents to complete the puzzle, with dialog that might go like this:

Adult: So what kind of picture will this puzzle show?
Child: A helicopter!
Adult: What piece can you find next?
Child: I don’t know.
Adult: How is a helicopter different from an airplane?
Child: (Seems confused.)
Adult: Well, where is the propeller on an airplane?
Child: In the front.
Adult: And where is the propeller on a helicopter?
Child: (Pauses, looks puzzled)
Adult: Well, if it doesn’t go in front, where does it go?
Child: (Brightens up) On top!
Adult: That’s right. So can you find a piece that looks like a propeller?
Child: (Pauses, looks pieces) No…
Adult: Well, what if it’s just a half a propeller?
Child: (Searches, points to the right piece)
Adult: That’s right! Now can you place it in the puzzle?
Child: (After handling piece, finds the right place for it)

…and so it goes until the child completes the task. Next time he is asked he can put the entire puzzle together by himself. And his understanding of how a helicopter differs from an airplane is reinforced.

In terms of schooling, Vygotsky stressed considered his concept of assisted discovery as crucial to the education process. This included both adult collaboration and cooperative learning among peers.

**Tools and Changes**

Clearly tools played a critical role in evolution. These included weapons but also instruments of agriculture, and later, more sophisticated “shop” tools, then machinery. Development of new tools went hand-in-hand with cultural advancement.

How dependent are you who are students on word processors to aid in your school work? Or your office work, if you’re in such a “white collar” environment? Imagine as well how different life might have been without so-called “social media”? (Some might argue that life might indeed be better without the latter.) But the point is that today, with such rapid technological changes, we are in the main far better off from even just a few years ago.

For example, as a student myself many years ago, I’d have to do my papers on a manual typewriter. Does anyone else remember White Out? Now with computers this, as well as so many other tasks, have become streamlined, saving us both time and trouble. But what’s next? Consider how much artificial intelligence (AI) might soon change our lives. Would such “advances” put realms of people out of work? And how can we as a culture adjust to such changes? How
would our educational curriculum address such changes? How would all of this affect our politics? And of course there’s globalization—how does becoming increasingly connected to the “whole world” make us change?

What about computer games, do they make us smarter, or dumb us down? Do they promote violence or are they a cognitive bonus that helps us to better focus our thinking? And how should parents control access to these marvels?

Vygotsky had much to say about the role of the creation of new tools and the ways in which they could change cultures. Imagine if he were alive today; what would he think and how would he picture the changes that might be coming for us as technology continues to advance?

Clinical Applications

Vygotsky had a strong influence on Alexander Luria, who became famous for his work on neurological impairment. Vygotsky’s ideas concerning the self-regulating function of speech were important for understanding and diagnosing certain brain disorders (e.g., stroke). They also inspired new methods of therapy, such as Meichenbaums’s (e.g., Meichenbaum & Cameron, 2017) “self-instruction training” (SIT), a form of cognitive behavioral therapy which helps people (e.g., hyperactive children) gain control over their lives.

Vygotsky Compared with Piaget

Social Context. Piaget did not ignore social interactions altogether but he did not seem to recognize their importance in cognitive development. Whereas for Piaget the basic unit of study was the child in (and exploring) the environment, for Vygotsky the basic unit of study was not just the child but the child in the context of the social milieu.

Speech. Piaget’s conception of children’s speech—especially silent or inner speech as observed by lip movements—was that of
egocentricity. In contrast Vygotsky believed that learning language vis-à-vis his private speech was a necessary precursor to verbal thought.

**Ideas on Education.** Like Montessori, Vygotsky emphasized assisted and cooperative discovery in the classroom, as well as in the home environment, whereas Piaget’s focus was on the child as natural learner; also consistent with Montessori.

**Final Word**

Vygotsky’s life was cut short; had it been longer he surely would have expanded on his ideas; and this chapter would have been far more extensive. As it is, he never had that opportunity. His key concepts for psychological development, but in particular his focus on sociocultural influences, will remain as a crucial area for further research.

****
Notes

3. Taken mostly from Wertsch (1985).

****
For Thought and Discussion

1. If you are studying at a college campus, take a look around you. How much diversity in the student body is visible to you? If you see many different ages or people of ethnic backgrounds dissimilar to your own, do you think this makes a good case for the study of cultural similarities and differences important for the field of psychology?

2. Can you understand why Jared Diamond in “Guns, Germs, and Steel” sees Papua New Guineans as “more intelligent” than he? Does this make sense, and why should it be so?

3. “Do the laundry,” “Pick up the kids.” Young children learn by giving themselves commands, first with lips moving, then later with “silent speech.” Do you ever “give yourself orders?” whether silent or perhaps even whispered?

4. Can you think of an example of how scaffolding might be used with grade school children? How about with college students?

5. If you have small children, have you observed them engaging in “private speech”?

****
6. The Development of Intelligence

The unfortunate result of mixing science and politics in the field of intelligence has been a tendency to focus on peripheral or subsidiary issues before the basic ones have been resolved. As a result, there has been a great deal of debate on such issues as the relative effects of heredity and environment on intelligence, race-related differences in intelligence, and social-class differences in intelligence – all in the absence of any good underlying theory of just what intelligence is.

Intelligence is what the tests test.

–Robert J. Sternberg

Do Psychologists Know What Intelligence Is?

Lay people believe that intelligence amounts to brainpower, or how “smart” a person is, yet over the years since Alfred Binet and Theodore Simon created the first test of intelligence (Binet & Simon, 1905) psychologists have proposed numerous differing definitions of intelligence. Exactly what intelligence is and how it should be measured is an ongoing controversy that continues to this day. Thus, before considering how intelligence develops, it is important to take a close look at some of these many different views of intelligence and the changing ideas about this construct.

The question “Do we know what intelligence is?” is therefore difficult to answer (note the opening quotes, above), and clearly, psychologists have always had many different ideas about this.

The Nature of Intelligence:  
A Personal Reflection by the Author

When I was a student in junior high school (now known in the U.S. as “middle school”) we were routinely tested for not only achievement, but also for intelligence. It was a poorly kept secret that
the middle three numbers in one’s identification code that appeared on official records represented one’s score on an intelligence test, which was referred to (incorrectly, as will be seen) as intelligence quotient, or IQ. This number was thus available to both teachers and to school administrators. Given this IQ score along with standardized achievement scores, decisions were made regarding a student’s placement, on the assumption that these scores directly reflected one’s presumed academic abilities.

I was disheartened to learn in the seventh grade that my IQ was not too much above average, despairing because I never wanted to be “merely” average. As I had a rather low self-image already this made me feel depressed. Why? For one thing, we students tended to believe that IQ was a fixed property of an individual. It was a numeric summary of just how smart one was (or was not, as the case might be). As an average student, I could only expect to have an average career; I would never be outstanding in anything I attempted in later life. I just wasn’t smart enough!

Routine intelligence testing later became quite controversial. One of the many reasons for the controversy was that IQ scores were greatly misunderstood – not only by students, but by parents and teachers as well. There was indeed a misconception among some, and even among professionals, in that they (like me at the time) often tended to reify intelligence; to assume it represented something “real” in the mind; something that was fixed and unchanging. The negative result was that it tended to stereotype people. A person’s IQ score could be used as a convenient label for assessing everything from a student’s likely potential grade in a given course to assumptions about his or her future expectations in life. Students might then be further labeled as “over-” or “underachievers,” depending on how well they actually performed in their class work when compared to their expected potentials based on their IQ scores.

On a happier personal note, it was much, much later in life – when I was a Ph.D. student, in fact – that I took a carefully administered individualized test, and found my IQ to be in the upper two percent. The measurement taken in youth, as it turned out, was clearly a poor predictor of my later score. But by this time, I had learned enough psychology not to take the score quite so seriously. I now understood
that IQ scores were not fixed and unchanging; that a given score (especially on a group test) could vary considerably from day to day depending on a number of factors; and that scores could greatly increase (or in fact, decrease) over long periods of time.

I also came to realize that intelligence does not necessarily represent just one kind of ability.

My story is by no means unique. Robert J. Sternberg is one of the most respected and recognized names in intelligence research today. He performed poorly on his intelligence test in the sixth grade – so poorly that he was asked to retake the test with the fifth grade class, where the test was considered easier. Sternberg has written numerous books and over 800 articles in a number of areas of psychology, including intelligence, and is a past president of the American Psychological Association.

Intelligence was then, and still is, a frightfully misunderstood construct. Misconceptions about the nature of intelligence, what it means, and what psychologists actually measure with intelligence tests, still abound today.

Intelligence – Is it One Ability or Many?

A Definition of Intelligence

David Wechsler designed some of the most widely regarded intelligence tests in use today, including the Wechsler Adult Intelligence Scale (WAIS) and the Wechsler Intelligence Scale for Children (WISC). He defined intelligence as the global ability to think rationally, act purposefully, and deal effectively with the environment (Wechsler, 1944). This definition is satisfactory to many psychologists in a very general sort of way, but still, it may not go far enough. Disagreements still abound as to exactly what intelligence is, and of equal importance, what it is not. For other definitions that have been proposed (and there are many) see Sternberg and Determan (1986).

To further clarify the concept, perhaps it will help to specify what intelligence is not. By any good definition, intelligence is not a
“thing” – it is not, for instance, a physiological structure located in some specific, identifiable location in the brain. According to Wechsler, intelligence is an overall or global kind of mental ability, but to other researchers it consists of many distinct kinds of mental abilities. Indeed, one of the first and most persistent controversies among psychologists studying intelligence is the issue of the nature and number of cognitive abilities that actually comprise intelligence.

How Many Factors of Intelligence Makes Sense?

*Spearman’s g.* Early in the history of intelligence testing, a British psychologist who was also highly skilled in statistics, Charles Spearman (e.g., Spearman, 1904), recognized that a given individual might be better at one sort of mental skill than another. However, he also believed that intelligence was best understood as a single, global ability that underlies all such cognitive skills. Spearman referred to this ability as *g* as in *general* intelligence. He theorized that each test or subtest in an intelligence test battery measured both *g* and a separate component representing an ability that is specific to that particular test.

Spearman used a statistical method known as *factor analysis* to try to prove his point. Factor analysis analyzes the intercorrelations among all measures (usually subtests) and identifies a smaller number of linear (statistical) combinations of the variables called *common factors* (or more simply, just *factors*). For example, a researcher might begin with a battery of 20 tests, then finds that a smaller number of factors – say 5 or 6 – accounts for most of the common (or overlapping) covariation that is mutually shared by these tests. Interpretation of the factors then follows. Interpretation is made easier when there is only indeed only one general factor, based on a large degree of overlap among all the tests – as was the case with Spearman’s early work in which he hypothesized that such a single general factor would emerge. However, his sample of tests was somewhat limited, and other researchers disagreed with his interpretations.

*Thurstone’s Primary Mental Abilities.* Louis Leon Thurstone, an American psychologist who, like Spearman, developed his own
statistical methodology, further refined the method of factor analysis. Using these methods he identified seven separate factors which he called **group factors**. These group factors represented **primary mental abilities** for Thurstone (1938), which were very general, and stood for qualitatively different kinds of mental skills (see Table 6.1 for a description of these). Although Thurstone’s factors were correlated to a certain degree, he considered them quite basic and fundamental. In other words, primary mental abilities went beyond g, and intelligence was a multidimensional construct to Thurstone. But other researchers using different rationales have proposed differing numbers of factors or abilities – as many as 120 in J. P. Guilford’s (1967) structure of the intellect model! Although Guilford’s very large number of factors has not been well accepted in the field of psychology, researchers do still differ with respect to the “correct” number of mental abilities – should it be one, two, seven, or more? “Deciding on the correct number of factors is probably the most important decision to be made in using factor analysis and the related models—more crucial, in fact, then the method of extraction or of rotation—and perhaps even more important than the choice of model” (Fleming, 2019, p. 12).

There are problems with using factor analysis as the sole basis for deciding on the number of cognitive abilities that define intelligence. First, factors are based on correlational procedures designed to uncover regularities or consistencies of pattern in data. Reliably identifying a factor does not by itself prove that one has discovered some sort of unique underlying mental process. Factor analysis is a starting point rather than a terminal one in investigating the nature of intelligence.

Second, although certain objective criteria can be applied to determine the presumed “correct” number of factors, the application of different rules by different researchers results in differing numbers of factors. Third, and related to both of the previous points, is the question of whether a factor represents a major or a minor sort of ability: the more factors that one extracts, the less likely one is to find that the identified abilities represent very general or basic kinds of processes. And fourth, different batteries involve different numbers and kinds of tests, and the composition of one particular battery will result in a different number of factors than will some other set.
### Table 6.1
Thurstone’s Seven Primary Mental Abilities

<table>
<thead>
<tr>
<th>Factor</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Comprehension</td>
<td>Vocabulary; understanding of words</td>
</tr>
<tr>
<td>Verbal Fluency</td>
<td>Verbal facility, such as anagram problems or word categories</td>
</tr>
<tr>
<td>Number</td>
<td>Arithmetic facility</td>
</tr>
<tr>
<td>Spatial</td>
<td>Manipulation of objects in space, Such as mental rotation</td>
</tr>
<tr>
<td>Associative Memory</td>
<td>Simple rote memory tasks</td>
</tr>
<tr>
<td>Perceptual Speed</td>
<td>Speed in identifying visual details, as in clerical tasks</td>
</tr>
<tr>
<td>Inductive Reasoning</td>
<td>Problem solving by finding the best “rules,” as in number series (e.g., “what is the next number in this series?”)</td>
</tr>
</tbody>
</table>

**Hierarchical Models.** Hierarchical models of mental abilities can be seen as bridging the gap between those favoring one, a few, or many factors of mental abilities. In developing hierarchical models, researchers first extract a relatively large number of factors – perhaps 10 to 20, for example. The correlations among these basic or *first-order* factors are themselves subjected to factor analysis and a fewer number of *second-order* factors are extracted. The process is repeated...
recursively, until just one or two factors at a higher order are uncovered and no further factors can be extracted. In practice, one is usually left with a single, third-order factor of general intelligence, perhaps two second-order factors, and many first-order factors. The number of factors problem then becomes less critical; instead, one decides on the appropriate level of analysis for a given research endeavor: one, two, or several may be of practical interest.

Raymond B. Cattell developed such a model (Cattell, 1963, 1987). His two second-order factors were called crystallized intelligence and fluid intelligence. Crystallized intelligence, Cattell believed, greatly depends on learning and is therefore partially a function of culture (nurture), whereas fluid intelligence is largely nonverbal, and relatively less dependent on culture – it is therefore more likely to be influenced by heredity (nature). John Horn (1994) has revised and extended Cattell’s model (now called the Horn-Cattell theory of intelligence). A similar hierarchical model was proposed by Philip E. Vernon (1950/1971). Vernon’s two second-order factors were called practical-mechanical and verbal-educational.

Sternberg’s Critique of the Psychometric Approach. Robert Sternberg (1989) called the factor analytic approach to understanding intelligence the geographical or mental map approach – a concept that he considers limited. Although factor analysis certainly ought to be applied to any new kind of intelligence test battery, it is only one step in the process in theorizing about the number and nature of underlying mental abilities. Much of the work on intelligence in the latter part of the twentieth century focused on information processing, or the study of mental processes and strategies employed by different individuals, when solving problems. The information processing approach is, indeed, in the spirit of Piaget – recall from Chapter 4 that Piaget was not so much concerned with whether or not a child got a correct answer on an intelligence test item, but rather, with how that child arrived at the particular answer. But before leaving the number of factors issues, a couple of additional approaches will be considered. It is also important to recognize that many useful predictions can be made from intelligence tests based on either total scores, or from scores on the several group factors. Academic achievement, for
instance, is statistically predictable from overall intelligence scores. But is success in life? This issue will be addressed a little further on.

**Gardner’s Multiple Intelligences.** Howard Gardner (1983, 1993) argued for several different kinds of intelligence. He based his ideas not on statistical factor analysis, but rather, on psychology’s limited (but growing) knowledge of how the human brain functions. He considered, among other factors, what could be learned from limited brain functioning in brain damaged individuals, as well as information processing capabilities identified in the study of children’s learning that are linked to sensitive or critical periods of development. Gardner also derived some of his concepts of intelligence from the study of individuals known as savants. Such people are very gifted in one, limited area, but are also slow or retarded in others, which suggested that some mental abilities are relatively independent of others. Leslie Lemke, born blind, mentally retarded, and with cerebral palsy, is a musical genius at the piano. By the time he was a teenager he could play the most complicated musical arrangements by ear, often after having heard them for only one time (Beirne-Smith and others, 2005). Some severely autistic children are very good at certain kinds of mathematical calculations; in fact, they are geniuses in their own limited realms. The character of Raymond (played by Dustin Hoffman in the feature film *Rainman*, based on a true story), was also such an individual.

Gardner fully acknowledged that his ideas are formative and ongoing, and subject to revision as psychology and neuroscience learn more about the development and functioning of the brain.

Based on his own evaluations of current research, he identified eight separate kinds of intelligence. The first three of these are not unlike traditional, psychometric factors, which include: verbal or linguistic, logical-mathematical, and spatial. The remaining five are quite untraditional though. They include: musical, bodily-kinesthetic (highly developed in dancers and athletes, for example), interpersonal (social skills; knowledge of others), intrapersonal (self-awareness and cognitions about oneself), and naturalistic (sensitivity to, or appreciation of, nature).
Obviously, some of Gardner’s dimensions of intelligence differ greatly from those identified through psychometric analyses of standard intelligence tests. Some psychologists believe that certain of these dimensions really represent specialized talents, but not intelligence, the definitions of which are ordinarily couched in more cognitive terms. But arguably, all of these abilities may ultimately be related to brain functions, at least in theory, and Gardner also notes that all are valued abilities not only in our culture but also in most others as well.

**Sternberg’s Triarchic Theory of Successful Intelligence.**
Recalling from above that Sternberg had difficulty “passing” intelligence tests in grade school, there is some irony in the fact that he is perhaps the leading authority today on that subject! Sternberg and Gardner are in agreement that traditional concepts of intelligence are inadequate on both theoretical and methodological grounds. Sternberg viewed some of Gardner’s aspects of intelligence more as specialized abilities rather than what is meant traditionally by “intelligence,” but both agree on the limitations of the psychometric approach.

Successful intelligence for Sternberg means not only success in school (although that is part of intelligence), but also success in life. His (Sternberg, 1985; 1997) *triarchic theory of successful intelligence* (triarchic connoting three distinct aspects) consists of:

- **Analytic intelligence:** This is the kind generally measured by IQ tests – the ability to solve various kinds of abstract problems. People who are high in this ability tend to do best in academics (at least if motivated to do so), but it is much less predictive of success on the job or in life generally.

- **Creative intelligence:** This pertains to the way in which people adapt to new situations. People who are creatively intelligent do draw on past experience and learning, but they are able to solve problems in novel ways.
Practical intelligence: This aspect of intelligence refers to the capacity to adapt – as such it comes close to David Wechsler’s definition cited earlier, which is an ideal often cited by psychologists, yet somehow never adequately measured (certainly not by traditional tests of intelligence). A vernacular term one often sees for this type of intelligence is “street smarts.” What is seen as practical intelligence in one culture may differ from another, but there is always an emphasis on successful adaptation.

Sternberg provided some intriguing commentary on race, intelligence, and culture in his presidential address to the American Psychological Association. He reminded psychologists that in the early days of IQ testing, “A leading researcher, Henry Goddard, pronounced that 79% of immigrant Italians were ‘feeble-minded’; he also asserted that about 80% of immigrant Hungarians and Russians similarly lacked intelligence…[he] associated moral decadence with this deficiency of intelligence…And he declared that all potential immigrants with low scores should be selectively excluded from entering the United States…Today, Italian American students who take IQ tests show slightly above average IQs [they should be about “average” according to definition]; other immigrant groups that Goddard…denigrated have shown similar ‘amazing’ increases…Cultural assimilation, including integrated education and adoption of American definitions of intelligence, seems a much more plausible explanation” (2004, p. 336).

On race and intelligence, Sternberg, Grigorenko, and Kidd (2005) state “…the overwhelming portion of the literature on intelligence, race, and genetics is based on folk taxonomies rather than on scientific analysis…Race is a social construction with no scientific definition…No gene has yet been conclusively linked to intelligence …The authors also show that heritability, a behavior-genetic concept, is inadequate in regard to providing such a link” (2005, p. 46). Here Sternberg and his colleagues do not deny that genetics plays a role in intellectual potential. However, not everyone believes that race is a social construct; consider, for example, Murray and Hernstein’s (1996) controversial book “The Bell Curve.” But a problem for the study of “race and genetics” is a lack of clear conception of race
itself. Is race defined by skin color? Surely genetics plays some role, but is there such a thing as a “pure” race? Consider that most African-Americans have some portion of their DNA indicating European ancestry.

The Case for Multiple Factors of Mental Ability: Two Individual Histories

Ledyard Tucker has been called the “world’s wisest psychometrician” (Kaiser, 1970). (A psychometrician is one whose expertise lies in mathematical methods pertaining to psychological assessment techniques and testing). Although not well known to the general public, Tucker, a protégé of Louis L. Thurstone early in his career, is an icon to psychologists who studied in the field of psychological testing (including the present author).

In an interview with Neil J. Dorans (2004), Tucker, who at the time was 93 years old, recounted some of the highlights of his career. Dorans asked Tucker where his strong and superb spatial reasoning skills came from. He replied that he “was always a poor student in the linguistic areas. I did poorly in school until we began to do mathematics. Up to that point most class work involved reading and spelling, which was hard for me. When we started doing mathematics in high school I began to do very well (p. 146).”

Tucker did some remarkable work in high school chemistry lab, where he “simulated production of compounds that were produced in chemical factories…I also received a National Honor Society award for my work in science as a high school student (p. 146).” And Tucker received many other awards and honors as a student.

According to Tucker, “One thing that struck me immediately was the wisdom of Thurstone’s multifactor perspective on human abilities…I am poor at linguistics, which made it hard for me to get my points across. On the other hand, I am strong with respect to quantitative and spatial abilities. My own pattern of abilities supported Thurstone’s
perspective about the multi-faceted nature of human abilities (p. 147).”

****

Albert Einstein was another individual with a great mind for spatial and mathematical reasoning. Einstein developed his language skills somewhat slowly, and he had some difficulties in schools as a youngster, but these troubles may have been due to any number of reasons, including the fact that Einstein was a Jewish boy who at one point attended a Catholic school (AIP, 2004).

Einstein’s wish was that, following death, his brain would be made available for scientific study – and indeed it was. In the book Driving Mr. Einstein, Michael Paterniti (2001) describes the strange odyssey of that brain following its removal by Princeton University pathologist Dr. Thomas Harvey. In its final journey to date, Harvey and the author traversed the U.S. with Einstein’s brain enclosed in a formaldehyde filled Tupperware container, in the trunk of an old Buick Skylark. Ultimately, it was returned to Einstein’s rightful heir, his daughter.

Over the years Harvey never followed through on his promise to study the brain and publish his findings in scientific outlets. However, he did share bits of it with researchers from time to time.

The outward appearance of Einstein’s brain was not at all different from other brains, except in a few key aspects. Most notably, the parietal lobes, which are implicated in spatial and mathematical reasoning, were enlarged, whereas certain other areas of the brain were somewhat smaller than average (Pinker, 2002; Witelson, Kigar, & Harvey, 1999). Further researches into brain anatomy, and perhaps more promising, brain functioning as revealed by scanning techniques, may lead to new insights about specific aspects of intelligence – as Spearman himself suspected in the very early twentieth century.
Measuring Intelligence

Binet and Simon (1905) devised the first intelligence tests as a means of identifying students who were at risk for poor performance in school. Thus their tests were used for assessment for special education referrals. Children who scored low on such tests could be given special assistance, including remediation or practice working on items similar to those they missed. Test items consisted of a variety of different kinds of mental tasks – as they still do today. The items on the Binet-Simon tests were ordered in terms of difficulty. Although it was possible to obtain total scores for individuals, Binet did not believe that intelligence represented a single ability. Binet fretted about the possibility of misusing test scores, and the related dangers of labeling (Gould, 1996).

Despite Binet’s cautions, mental measurements did become a widely used educational and psychological assessment phenomenon in the early to the mid twentieth century. Louis Terman (1916) first published the Stanford-Binet intelligence test in 1916. Later revisions of this test are still in use. Following William Stern, the term intelligence quotient, or IQ, became widely used as the single score that best summarized the results of the testing. This amounts to dividing the child’s mental age (average age of children who obtain this score by the chronological or actual) age, then multiplying the result by 100 (so that an average child’s score is exactly 100). As an example, a 10 year old child who is performing like an 8 year old has an IQ of $80^3$:

\[ \text{IQ} = \left( \frac{\text{MA}}{\text{CA}} \right) \times 100 = \left( \frac{8}{10} \right) \times 100 = 80. \]

One of the greatest misuses of intelligence testing was in assessing IQs of immigrants arriving at Ellis Island in the early 20th century. Because so many could not speak English, and some lacked formal education, many non-English speaking groups were assessed as feeble-minded by poorly trained test administrators. This testing was partly responsible for the passing of the Immigration Restriction Acts of 1921 and 1924, in which low quotas were set for certain groups, notably southern and eastern Europeans (Gould, 1996).
Today, people would clearly view such legislation as extremely misguided if not bigoted.

Intelligence tests today are often administered by career or personal counselors who are specially trained in their proper usage. Routine testing in schools is no longer common, but intelligence testing may also be conducted by school psychologists or other qualified professionals for specific purposes: to place children in gifted programs, or to help diagnose learning problems. When used in conjunction with other kinds of tests – for example, aptitude, achievement, or personality tests, they can be quite useful. For such purposes individually administered tests, such as the Wechsler tests or the Stanford-Binet III, are more useful and more reliable than group administered tests. Such tests usually give not only a single IQ number, but also provide scores on subtests that measure more specific abilities, such as verbal comprehension, mathematical reasoning, tests of spatial ability (as in tasks involving mental rotations), and so forth. (But note that use of subtest scores versus total scores still raises the issue of whether intelligence is a single ability or many.) Used wisely by trained professionals, intelligence tests can indeed provide useful information for the client or for parents and teachers, and abuses and misuses of test scores are much less common than they once were.

Do Highly Intelligent People Do Better in Life than Others?

IQ scores are substantially correlated with academic success, but they are somewhat mediocre, on the whole, at predicting success in life (Sternberg, 1985). There are good reasons for this finding. As might be surmised, not only intelligence, but also motivation, determination, and belief about one’s abilities have quite an impact on achievement (Dweck, 2000; Terman & Oden, 1959). These variables also play a role in defining so-called “over” and “under-achievers.” Traditionally, an over-achiever is a student who, because of a high level of motivation and determination, performs better in school than would be anticipated from an examination of the student’s intelligence (or other) tests scores. An under-achiever, by contrast, fails to meet expectations.
Implicit Theories of Intelligence. Carol Dweck and her associates conducted a number of research studies concerning people’s beliefs about their intelligence (summarized in Dweck, 2000). Dweck identified students using the concept of implicit theories of intelligence, which are theories people formulate about themselves concerning their abilities. Some students become what she calls entity theorists, who implicitly believe that intelligence is a fixed and unchanging characteristic. Others she identified as incremental theorists, who believe that intelligence can be increased through experience and effort.

Incremental and entity theorists among students form different motivational patterns. Incremental theorists tend to work harder at solving difficult problems – they have a mastery orientation – whereas entity theorists react with a helpless orientation when presented with highly frustrating tasks – they tend to believe that they are not capable of solving such problems and give up sooner in frustration. Students entering middle school who held an entity theory of intelligence were at a disadvantage and they underachieved. Even entity theorists with high confidence in their intelligence did poorly, whereas incrementalist students with low confidence in their intelligence had higher actual achievement. The entity theorists underachieved because they held a helpless orientation and the incremental theorists overachieved because they had a mastery orientation (Henderson & Dweck, 1990). In Albert Bandura’s (1977; also see Chapter 11) terms, it is a sense of self-efficacy (mastery orientation in this case; a belief that effort would pay off) rather than confidence (in one’s fixed abilities) that was the key variable in the higher achievement of the incrementalists.

Emotional Intelligence. Some of us may wonder how it can be that certain individuals who are supposed to be so smart can act so dumb! Having a high IQ is no guarantee of success, especially when one is removed from a purely academic setting. A person can be very bright in some ways, and yet be quite clueless when it comes to sizing up others, having good relations with other people, and for that matter, really having a good understanding of one’s self and the ability to handle one’s own emotions.
Cantor and Kihlstrom (1987) wrote about social intelligence, or the ability to successfully understand and evaluate other people and handle oneself in social situations. The concept of social intelligence has been expanded more recently, and is now called emotional intelligence (Salovey & Mayer, 1990; Goleman, 1995; Mayer & Salovey, 1997). Part of emotional intelligence involves the ability to regulate one’s own emotions; another part is simply the ability to get along with others. Both abilities involve perception, sensitivity, and understanding. Persons who are emotionally intelligent can regulate their own emotional highs and lows, are sensitive to the moods of others and make appropriate responses in social situations. Emotional intelligence is thus highly related to success in service oriented businesses, or in any realm that involves working closely with others.

But is it really sensible to call such abilities “intelligence?” Such social skills are not at all close to what traditional intelligence tests measure, although they may overlap some of Gardner’s all-encompassing facets of intelligence in certain respects; mainly his interpersonal and intrapersonal intelligences. Perhaps these skills come closer to personality attributes, such as the traits of “agreeableness” and “conscientiousness” (see Chapter 14). But whatever one calls it, in dealing with people emotional intelligence is as important as any other ability; in fact it is of the utmost importance for success in many areas of life.

Some Tentative Conclusions Regarding the Number and Nature of Cognitive Abilities

Traditional disagreements about the number and nature of intellectual abilities have not entirely been resolved. In fact, there are more divergent view today than ever before on such matters. Data can be gathered and analyzed in different ways to provide at least partial support of almost every position. But disagreements can be minimized by recognition that:

1. In the case of traditional intelligence measures, viewing the controversy in terms of different levels of analysis (per the hierarchical models) provides a meaningful compromise between one, few, or many factors of intelligence. Overall measures of
general intelligence (that is, of g) are useful; they are especially predictive of general academic achievement, and also can be useful in career counseling; specifically, in assessing aptitude for mentally challenging careers (along with other factors). On the other hand, measurements of more specific cognitive abilities can predict more specific outcomes – as was seen in discussing Ledyard Tucker’s and Albert Einstein’s spatial/mathematical skills, which made them particularly well-suited for their chosen careers. Cases like these point to the importance of considering multiple factors and measures of intelligence. Even more extreme examples of savants, or geniuses in very specialized areas, point not only to the importance of looking at multiple factors of intelligence, but these results also suggest (per Howard Gardner’s research) that different brain mechanisms may be involved in each such skill.

2. Looking beyond traditional measures provided by IQ tests, the choice of multiple facets of intelligence appears to be partly a matter of utility and preference. Does one prefer Sternberg to Gardner, or vice versa? Both have very interesting and researchable conceptions of intelligence. Given the present state of knowledge, there appears to be no absolute, objective way to distinguish between them. Both can lead to productive research, and both may prove to be practically useful; indeed, they may even prove reconcilable as “different parts of the same elephant.” Emotional intelligence has also proven to be a useful concept – whether or not one considers this to be “intelligence” in the traditional sense appears to be a largely semantic question – perhaps it hardly matters in the long run.

Views on Intelligence: Science or Cultural Philosophy:

Many notable pioneers in the history of intelligence testing were Britons, and of these, many were also of the gentry, as some of their
titles clearly indicate in the illustrious list of names that includes Sir Francis Galton, Charles Spearman, Sir Cyril Burt, Sir Godfrey Thompson, and Hans Eysenck. All of these people have in common a strong advocacy of a single, general factor of intelligence. Although Arthur Jensen is an American, he was trained in the “British school,” and was greatly influenced by these British psychologists.

Thurstone and his intellectual descendants, on the other hand, seem to represent an “American school” of thought as regards intelligence, which Thurstone saw as not a single ability, but many different kinds of mental skills. Arguably, there are subtle or hidden cultural beliefs lurking behind the science that might (consciously or unconsciously) lead these researchers to their different positions.

Britain has traditional been a more structured society in terms of social class. Prior to the twentieth century (in which vast social changes took place – especially following the second World War), the wealthy British upper class was supported by a servant class, and class mobility was extremely limited: one remained in the class of one’s birth, regardless of education, wealth, or fortune. Perhaps the notion that intelligence is a single, fixed entity appealed to those in the upper classes, who presumably score higher on the whole – but who also have had unequalled social and educational opportunities. In a darker vein, such beliefs in the innate differences between classes could potentially be used by the few to oppress the many.

On the other hand, America is (or at least was, traditionally) a place in which one’s place in society is determined by one’s accomplishments to a much greater extent than by one’s birthright. Part of Americans’ implicit mythos can be found in beliefs that all one needs is ambition and enterprise to succeed (the “Horatio Alger” myth), that one can “pull oneself up by one’s own bootstraps,” and that “anyone can grow up to be president.” Aren’t such beliefs congruent with the thought that everyone must have some special talent that they could draw upon to help them to succeed if they only try hard enough? And perhaps even more than Americans, Asian students tend to believe that motivation, effort, and hard work are more important than native ability in defining intelligence (Stevenson and Lee, 1990). When taken to extremes, both viewpoints are easy to criticize. But it is well to be mindful that scientists are human beings,
each with their own biases – and that these biases may drive not only their ideas, but their different interpretations of the same data.

What Factors Influence the Development of Intelligence?

Most of the research on how intelligence develops utilizes overall measures of IQ. Although the psychometric tradition of measuring intelligence provides the means to assess this trait, this line of research tells us little about the psychological and physiological mechanisms underlying it. As with virtually all psychological traits and abilities, intelligence is assumed to be determined in part by heredity, influenced to some extent by experience and learning, but moreover, is affected by the interaction between these facets of nature and nurture.

Gross Anatomy and Physiology

At a more anatomic and physiological level one may ask whether intelligence is related to brain size, or to the number of neurons and synapses within the brain; or whether it is related to the speed of neuronal transmission. Regarding the latter, many if not most intelligence test items can be solved by most adults given sufficient time to study these problems; hence, speed of thought might indeed be a factor in scoring well on such tests (time is a factor in most tests). Vernon (1994) and Jensen (1982) both presented evidence of moderate to strong correlations between IQ and simple reaction time – an idea that goes back to Galton in the nineteenth century (Gregory, 2013). Structurally it was earlier seen that Einstein’s brain was, overall, no larger than the average brain, yet one area was significantly more developed – the one that had to do with spatial-mathematical relations.

Early theorists in psychology such as James McKeen Cattell and William Wundt (see Gregory, 2013) thought that quick reaction times were associated with intelligence, or in other words, intelligence conceived as swiftness of thought was believed to be correlated with
swiftness of physical response. Some later theorists (e.g., Eysenck, 1994) also believed that higher intelligence was associated with greater activity of brain waves (average evoked potentials, or AEP). However, earlier research on the latter (Ertl & Schafer, 1969) was evidently flawed, and subsequent research has shown correlations among IQ and AEP to be modest, though sometimes statistically significant (Jensen, 1980). Also, correlations of IQ with simple reaction times are at best moderate (in the -.30 to -.40 range; Jensen, 1982).

**Genetics: Twin and Adoption Studies**

Anatomical and physiological studies don’t reveal whether neurological differences in brain function are due to heredity, environment, or to the interaction between the two. But the most impressive evidence for the heredity side of the argument comes from studies of twins and adoptions. Identical twins reared in the same home, similar in both genetics (they have, in fact, identical genes) and environment, have correlations between IQ scores in the .80s. The correlations drop somewhat to slightly above .70 on average for identical twins who are reared apart – yet they are still higher than for fraternal twins (who do not share the same DNA) who are reared together, for which the average correlation is around +0.60 (McGue and others, 1993).

Based on comparisons of twin and adopted children’s correlations with IQ, and comparing these with controls, including fraternal twins reared apart or together, some psychologists have attributed approximately 50% of the shared statistical variance in intelligence test scores to genetic influences. **Heritability** is the term used to describe this portion of variance. However, this number is in itself a statistical average based on a number of different studies, each of which gives a somewhat different number, and the term can be misleading. A heritability coefficient of .50 does not imply that half of one’s intelligence is due to genetic influence – such an assertion has little meaning, but especially when applied to a given individual (indeed, statistical averages themselves say next to nothing about a given person). But also, scores on intelligence tests as well as other measures of “intelligent” behavior simply cannot be neatly
apportioned between environmental and genetic influences – to believe so is at best wishful thinking. Such scores on intelligence tests are *always* due to an interaction between the two forces, and truly, these sources cannot be separated; neither in principle nor in practice. Still, these research findings do suggest that genes and therefore heredity do indeed play an important role in determining one’s intelligence. Most psychologists would agree that one’s measured intelligence, though not precisely fixed at any given time in life, is limited by genetic endowment: not every child can become an Einstein, Mozart, or Leonardo da Vinci. Nor can severely retarded children expect to become normal – not unless genetic scientists find new forms of gene therapy that can radically change the person’s basic makeup. For the present, at least, such ideas seem indeed quite remote.

**Evolutionary Psychology and Gender Differences**

Men and women or boys and girls of the same age do not differ on average in overall intelligence scores. But boys and men are better on the average at spatial and mathematical skills, girls and women on verbal abilities (Halpern, 2000). Females also score higher on average on social skills; on emotional intelligence (Rosenthal and others, 1979).

Assumptions about average score differences in intellect or ability can be misleading. On the one hand, average differences tell us nothing about a given individual. One may also question whether these differences reflect trends in interest, schooling, or simple belief about one’s abilities. On the other hand, if one examines the variability within each sex, differences between individuals can be much more dramatic than the average difference between genders: there are many men who are very “hi verbs,” and women who excel at math – and vice versa.

Some differences between the sexes might be explained by cultural traditions and practices. As an example, by tradition, in the past girls in the U.S. were not encouraged to excel in STEM fields (science, technology, engineering, and math). This may be far from true today, especially among the well-educated segments of our
population, and indeed, the gender-gap in test scores has narrowed somewhat in recent years.

The evolutionary case for gender differences in spatial abilities (e.g., Tooby & DeVore, 1987) assumes that in earlier civilizations men as hunters, who roved far from their home territory, developed greater spatial skills than women in order to better orient themselves geographically. As hunters, men may have communicated more by pointing and signaling than by direct communication so that they would not frighten game. Perhaps this is why men do better at mental rotation tasks (related to map reading) on intelligence tests than women.

But as gatherers may have developed their own specialized spatial skills: namely, the ability to locate plant species and other specific objects in the environment (Silverman & Phillips, 1998). (How many men would agree that their wives can better recall the location of small objects about the house?)

Women do better than men on tests of verbal memory and verbal fluency than men but just why such differences might have arisen from an evolutionary perspective exist remains speculative (Kimura & Clarke, 2002). However, differences in verbal abilities favoring women and in spatial abilities favoring men do appear to be correlated with the relative presence of the hormones estrogen and testosterone, respectively (Kimura, 1999). But to reiterate, differences on average between the sexes in verbal, mathematical, and spatial abilities are small in comparison to differences within each sex and researchers still disagree regarding the importance of evolution versus culture (nature/nurture once again!).

Environmental Influences on the Development of Intelligence

Studies suggest that extremely impoverished environments, with a paucity of interaction and stimulation can adversely affect intellectual development. Lack of stimulation at certain sensitive periods of development can lead to emotional deficits in neglected children (see Chapter 14 on attachment theory). To an extent, similar results obtain with intelligence. On the other hand, some research suggests that enriched environments in young children can increase intelligence test
scores in the early years, although the long-term effects are less well established (Ramey & Ramey, 1998).

Animal studies have shown that enriched versus impoverished environments in rats lead to impressive increases in the development of the brain’s cortex (Rosenzweig, 1984; also see Kolb & Whishaw, 1998). (An enriched environment included more “toys” and other objects for the animals to explore.) Can enriched environments affect human brains as well?

Evidence on the effects of enriched environments is indirect and correlational, because, of course, one cannot randomly assign humans to experimental and control groups over long periods of time. But numerous research studies strongly suggest that this is the case. Not all of these studies measured intelligence directly, but perhaps indirectly, by increasing motivation (and therefore achievement):

- J. McVicker Hunt (1982) observed attention deprived children in an Iranian orphanage. In an experimental intervention treatment program he found that children who were attended to and, in particular, given language instruction, improved not only these particular skills, but also became more sociable and “adoptable.”

- Head Start educational programs, developed for early intervention for “at risk” students (students from impoverished neighborhoods) have been enormously successful (Campbell & Ramey, 1994; Ramey & Ramey, 1998). The programs involve special preschool programs, and they include parent participation. These programs greatly enhance students’ academic success in early schooling, and to some extent later motivation to continue their education (not dropping out or requiring special education; Lazar & Darlington, 1982).

- Children’s IQ scores have increased significantly over the years in all countries of the world (Flynn, 1999; Neisser & others, 1996). There are many possible reasons for this increase – including better education and improved nutrition – but all of these potential causes are environmental.
Enriched home environments are associated with greater school motivation and achievement (Bradley and others, 1989; Gottfried, Fleming, & Gottfried, 1998). (Home environment variables encompass family support of intellectual stimulation, control of television watching, music or dance lessons, and similar enrichment strategies.)

Regarding so-called racial differences in measured IQ, Arthur Jensen (1969) began a long-running controversy in education and psychology by noting the lower average test scores for minorities, along with his assumption that such differences are due to race. (Note once again, as above, that many psychologists today as a whole do not recognize race as a viable biological construct.) But Scarr and Weinberg (1976) found that African-American children who were adopted into White families with higher than average levels of education and income scored higher than average on intelligence tests, which suggests that environmental factors were decisive influences.

**Some Practical Advice for Parents.** What can a parent do to assist children in their intellectual development? The above studies suggest the obvious: children can benefit from enriched environments, early schooling, and parental encouragement toward learning. Certainly reading to children and encouraging them to read when very young is helpful. But can parents push their children too hard? According to Sandra Scarr (1984) they can, but with diminishing returns in exchange for their efforts. While it is good to provide children with enriched environments, parents can go too far by attempting to accelerate their children’s development by hiring coaches or trainers in the early years (Quart, 2006). While it may be true that certain, notable geniuses were indeed pressured to excel by their parents (e.g., Mozart; John Stuart Mill, both by their fathers), the same result is questionable for children who show no signs of such genius early on; and the psychological effects (later rebellion and/or neurosis) can be devastating.
Changes in Cognitive Functioning Over Time

From the earliest days of intelligence testing researchers correctly assumed that cognitive functioning increased over time during the school years. Findings indicated that intelligence (not IQ, which is age-adjusted, but overall cognitive functioning) peaked at about ages 18 to 21. But in the early part of the twentieth century it was believed that mental abilities began to slowly decline after that.

This conclusion was based on faulty data gathered from cross-sectional samples of people tested at different ages during the same time period. A problem with cross-sectional research (Chapter 2) is that the data fail to account for cohort differences, and therefore missed that fact that educational opportunity had increased significantly, so that the younger groups scored higher due to their superior educational backgrounds. Longitudinal research (tracking the same cohorts over time) showed a quite different picture, although it took many years to properly accumulate such data. Nancy Bayley (1966), basing her findings on a well-tracked cohort from the Berkeley Growth Study, concluded that for many, intellectual functioning continued to grow until at least the mid-thirties.

But even longitudinal studies have their limitations by studying only a single group or cohort. There are many uncontrolled variables that can affect the average scores of a cohort; for example, having one’s education interrupted by a call to go to war, or extreme economic fluctuations due to a boom, recession, or depression. K. Warner Schaie did painstakingly detailed research in a project known as the Seattle Longitudinal Study (Schaie, 1988; 1996) using the cross-sequential method, which combines cross-sectional and longitudinal methods (recall Fig. 2.1 from Chapter 2). Schaie showed that cognitive abilities tend to increase for most people until around the late 50s, after which they begin to slowly decline. But for most people significant declines from the peak years occur after about age 80.

Broken down into more specific abilities, numeric abilities begin to decline about a decade earlier than general ability. However, averages are not the real story, which is that individuals can grow or decline throughout adulthood. Presumably, growth occurs with continued learning and through the process of mental stimulation.
Decline can occur for a number of reasons, including illness; but also from simple lack of exercising of one’s “mental muscle” (Schaie, 1994).

### Intelligence and Birth Order

Robert Zajonc (“ZY-onts”) noted that a sibling’s position in family birth order is negatively related to later measured IQ (Zajonc and Marcus, 1975; Zajonc, 1976, 2001). In other words, on average, first-borns score higher than second-order children, and so on. It follows as well that the average IQ of smaller families is higher than that for larger families. But why should this be the case?

Zajonc believed these findings could be explained by the fact that the children of first-borns are heavily influenced by attention from their parents whereas later born siblings must share their parents’ attention with the other children, and also are more likely to fall under the partial care of their earlier-born brothers and sisters. Primogeniture may also be a factor wherein more may be expected of first born children. Thus the intellectual capabilities of each new child born into a family would be expected to decline.

This finding has continued to be supported in research studies, though interestingly, personality traits do not seem to be systematically related to birth order based on measurements taken of adults (Rohrer and others, 2015, Nov. 17).

### Intelligence: In Search of a Working Definition

After years of work in the area of intelligence Sternberg appears to have tempered his initial pessimism regarding psychology’s understanding of the construct (per the opening chapter quote). After considering previous attempts to define intelligence, Sternberg (1997, p. 1030) offered the following:
Intelligence comprises the mental abilities necessary for adaptation to, as well as shaping and selection of, any environmental context.

This definition may sound simple, but there is much to it. Consider each part separately:

a. Intelligence comprises the mental abilities . . .

This definition is in line with tradition in that it stresses intelligence as necessarily “mental.” It therefore does not consider certain other specialized abilities as appropriate, such as kinesthetic ability.

b. . . . necessary for adaptation to . . . any environmental context.

The “adaptation to” portion is consistent with older definitions; compare with Wechsler’s definition at the beginning of this chapter. It stresses adaptive behavior – even though most standardized tests are arguably very weak on this facet.

c. . . . as well as shaping and selection of, any environmental context.

It isn’t enough to merely adapt; one must also be able to select and/or shape one’s environment. (If you don’t like your situation, change it or get out!)

d. . . . any environmental context.

Emphasizing the word “any” truly implies flexibility. If an “intelligent” person is placed in a new or strange environment (another cultural setting, perhaps), he or she ought to be able to adapt to it, or at least to use her or his mental powers to attempt to do so.
Note that this definition says nothing about how intelligence is, or ought to be, measured. Sternberg believes that, although the essential attributes for intelligence transcend cultures, the means of evaluating them are strongly dependent on one’s cultural context: “The processes of intelligence are universal but their manifestations are not” (2004, p. 336, emphasis added). Consequently, he does not believe that it is possible to construct a “culture free,” or even “culture fair,” tests of intelligence despite earlier attempts to do so. Instead, he believes, psychologists should construct tests that are culture-relevant.

Sternberg is also an advocate of lifelong learning; he does not believe that learning ceases with the termination of formal education or technical training. The definition he gives here seems to encompass that particular kind of leaning. At the same time, this definition seems quite consistent with his notion of successful intelligence and its three components: Analytic, creative, and practical.

As a final word, I will speculate as follows. Intelligence (or g, as measured IQ) most probably has a fixed upper limit for each of us. In other words, we are each born with a certain maximum capacity. It seems to me doubtful that this upper threshold can be altered by any means of which we are currently aware. But what parents, teachers, and societies can do is to make certain to limit impediments to its development so that each child can approach this potential. I believe that to accomplish this requires a good home and educational environment, but also a degree of luck; i.e., avoidance of lead or other toxic chemical exposure, lack of debilitating disease, and so forth. By all means read to your infants and toddlers; and include them from an early age in family discussions. Find out what your children are thinking, and why; and keep abreast of what they are learning in school. And always encourage curiosity.

I also believe it would be useful in future discussions to distinguish between IQ (i.e., the g factor for general intelligence as measured by standardized tests) and “intelligence” as a more broad label for the many conceptions of cognitive ability that were discussed above. We need to be clear about what we’re dealing with!

****

148
For Thought and Discussion

1. Share with the class, if you can, a time in which someone made you feel stupid ("extra credit" if this person was a teacher!). How did you deal with this situation?

2. Look over Thurstone’s seven primary mental abilities (Table 6.1). Try to think of other abilities that are important aspects of "intelligence” that are not listed here.

3. Try rating yourself on a scale of 1-10 for each of Gardner’s eight aspects of intelligence. (Braver students can also share some of these with the class.)

4. Do the same (as in number 3) for Sternberg’s three dimensions of successful intelligence.

5. As another self-evaluation exercise, do you tend to think of yourself as one of Dweck’s “entity theorists” or “incremental theorists”?

6. Sandra Scarr believes that parents are wrong to attempt to raise “super-children;” she really believes that it is fine to be a “good enough” parent and to a very great extent, let kids be kids. What is your opinion on the duties and responsibilities of parenting, especially as regards children’s intellectual growth?

7. For sharing with the class, think of someone you know who is very apt or intelligent in one area (using any of the definitions of intelligence encountered in this chapter) but very inept in some other area.

8. What are some of the weaknesses of factor analysis as a means of determining the number and nature of intellectual abilities?

9. Try to think of some possible arguments that an evolutionary psychologist might use to explain the apparent difference between men and women on verbal abilities (women on average score higher on verbal memory and verbal fluency).

****

149
Notes

2. Boring (1923).
3. Intelligence quotients are no longer used due to statistical problems with using such ratio data across ages (Pinneau, 1961). Instead, data are normed within age groups so that the average based on large norming samples is set to 100.

****
7. Piaget, Kohlberg, Gilligan, and Others on Moral Development

When confronted with a group of parents who asked me “How can we help make our children virtuous?” I had to answer as Socrates, “You must think I am very fortunate to know how virtue is acquired. The fact is that far from knowing whether it can be taught, I have no idea what virtue really is”… It appears, then, that we must either be totally silent about moral education or else speak to the nature of virtue.

—Lawrence Kohlberg

Piaget on Moral Development

Piaget’s Methods for Studying Moral Development

Piaget believed that observing children playing games and querying them about the rules provided a realistic “lab on life” for understanding how morality principles develop. In his book *The Moral Judgment of the Child* (Piaget, 1932/1965), he studied children playing the game of marbles. The fact that only boys played this game seemed to impose a limitation on the generality of his findings, so he also studied a girl’s game called *îlet cachant*, a kind of primitive hide-and-seek. But his most important observations were made on the boys — a fact that incurred later criticism, as will be seen.

Piaget often used a practiced technique of feigned naivety: He pretended to be ignorant of the rules of the games and asked the children to explain them to him. In this way he was able to comprehend the way that the children themselves understood the rules, and to observe as well how children of different ages related to the rules and the game.

On first thought it might seem odd that Piaget believed he could learn all important aspects of moral development by observing children’s play. But as Ginsburg and Opper (1988, p. 96) note, “On closer inspection it would seem as if the rules governing the game of marbles fulfill all the defining conditions of a moral system. The rules control how individuals behave toward one another in terms of the actions which comprise the game, they determine individual and property rights, and they are a cultural product which has been passed
down from generation to generation…The rules have been developed largely by children. Therefore, the child’s conception of the game…is subject to little adult influence.”

(As an interesting side note it should be mentioned that studying game strategies to learn about behavior and morality is now very much an accepted part of research in psychology and economics. Game theory can be used to simulate competitive or cooperative conditions in which either selfish strategies benefit only the individual, or cooperative strategies can mutually benefit all parties, as in Robert Trivers (1971) studies of reciprocal altruism – see Robert Wright’s (1994) The Moral Animal for other game theoretical studies of human behavior. Here is another instance in which Piaget seemed ahead of his time!)

A second technique used by Piaget in studying moral understanding was to relate a short story or scenario that described some form of misbehavior by a child or by an adult. He then presented the children with possible corrective actions that might be meted out to the offender and asked the children to tell him which were fair and just and which were not, and why. If a child neglects a chore, for example, after repeated requests, what is an appropriate punishment or correction? Here Piaget distinguished between expiation (atonement) and reciprocity as punishment strategies. Expiation meant that some form of punitive action (e.g., spanking; confinement) would be invoked in which the offender must “pay the price” for the offense. In contrast, reciprocity implies setting things right. With reciprocity the child must be made to see the consequences of his or her neglect, and to clearly understand the need to behave in a more cooperative manner.

Piaget’s Stages of Moral Development

Children’s Understanding of Rules. Piaget observed four stages in the child’s development of moral understanding of rules, based largely on his observation of children’s games:

- The first stage characterizes the sensorimotor period of development (children under four years) in which the child merely
handles the marbles in terms of his existing motor schemes. Play is purely an individual endeavor, and “…one can talk only of \textit{motor rules} and not of truly collective rules” (Piaget, 1932/1962, p. 27, emphasis added).

- In the second stage, about ages four to seven, game playing is \textit{egocentric}; children don’t understand rules very well, or they make them up as they go along. There is neither a strong sense of cooperation nor of competition. Recalling from Chapter 4 that egocentric children at the preoperational stage seem to have “collective monologues” rather than true dialogs, these observations do not seem surprising.

- The third stage, at about ages seven to ten or eleven, is characterized by \textit{incipient cooperation}. Interactions are more social, and rules are mastered and observed. Social interactions become more formalized as regards rules of the game. The child learns and understands both cooperative and competitive behavior. But one child’s understanding of rules may still differ from the next, thus mutual understanding still tends to be incomplete.

- In the fourth stage, beginning at about age eleven or twelve, cooperation is more earnest and the child comes to understand rules in a more legalistic fashion. Piaget calls this the stage of \textit{genuine cooperation} in which “…the older child shows a kind of legalistic fascination with the rules. He enjoys settling differences of opinion concerning the rules, inventing new rules, and elaborating on them. He even tries to anticipate all the possible contingencies that may arise” (Ginsburg & Opper, 1988, p. 98). But in terms of cognitive development this stage overlaps Piaget’s formal operational stage; thus here the concern with abstraction and possibility enters the child’s imagination.

\textbf{Children’s Moral Judgments.} Piaget’s studies of moral judgments are based both on children’s judgments of moral scenarios and on their interactions in game playing. In terms of moral
judgments, Piaget found that younger children (around age four to seven) thought in terms of *moral realism* (compare to “realism” in Chapter 4) or *moral heteronomy*. These terms connote an absolutism, in which morality is seen in terms of rules that are fixed and unchangeable (heteronomy means “from without”). Guilt is determined by the extent of violation of rules rather than by intention.

---

**Piaget’s Method: Sample Dialog Between a Researcher and a Child**

The following dialog is revealing (from Piaget, 1932/1962, pp. 124-125):

Q: Is one of the boys [who broke teacups] naughtier than the other?
A: The first is because he knocked over twelve cups.
Q: If you were the daddy, which one would you punish most?
A: The one who broke twelve cups.
Q: Why did he break them?
A: The door shut too hard and knocked them. He didn’t do it on purpose.
Q: And why did the other boy break a cup?
A: He wanted to get the jam. He moved too far. The cup got broken.
Q: Why did he want to get the jam?
A: Because he was all alone. Because his mother wasn’t there.
Q: Have you got a brother?
A: No, a little sister.
Q: Well, if it was you who had broken the twelve cups when you went into the room and your little sister who had broken one cup when she was trying to get the jam, which of you would be punished more severely?
A: Me, because I broke more than one cup.

Clearly this child understands that the boy who broke twelve cups did not do this intentionally, yet he still claims that this boy was more guilty (deserved greater punishment) than the one who broke just a
single cup while doing something he wasn’t supposed to be doing. Older children and adults find his idea of justice perplexing.

The second stage in making moral judgments comes later, usually around age 10, when children come to realize that rules have arbitrariness and are formed by mutual consent for reasons of fairness and equity. This applies equally to society’s laws, game rules, and familial standards of behavior. Older children realize that rules are not fixed and absolute, but that they can be changed as the need arises. Piaget called this second stage **moral autonomy**.

Once again, egocentricism plays into moral heteronomy, as the child is unable to see rules from the broader perspective of another child or adult, or of society in general. Conversely, moral autonomy requires just such an ability.

Piaget also noted that the stages of moral understanding are not entirely discreet. Children become capable of certain autonomous judgments before others, depending on the situation, just as horizontal décalage characterized the understanding of his conservation tasks for cognitive development. In actuality, the stages of morality overlap one another to some degree.

**Gender and Moral Development**

Piaget found that the games that girls played were nowhere near as complex as the boys and their marbles in terms of rules and options. Piaget did compare the stages of morality between the two sexes, noting both parallels and some differences. Both have stages of moral heteronomy and autonomy, for example. But the fact that the girls’ games were simpler makes precise comparisons difficult. Piaget stated that: “The most superficial observation is sufficient to show that in the main the legal sense is far less developed in little girls than in boys. We did not succeed in finding a single collective game played by girls in which there were as many rules, and above all, as fine and consistent an organization and codification of these rules as in the game of marbles …” (p. 77). Piaget seemed to be saying that conclusions gender differences are necessarily tenuous because the observations were superficial and due to the lack of opportunity – the
girls’ games were simpler, and therefore comparisons were difficult. Yet he did see girls as being less concerned with (and less rigid about) rules in general, and more ready to relax them: They appeared to be less concerned with “legalities.” But elsewhere Piaget appeared to equate concern with legalities as signs of advanced development: “…the juridico-moral discussions of the fourth stage [of moral development] may be compared to formal reasoning in general” (p. 47). Do girls then have a less sophisticated, and therefore deficient, sense of moral understanding? Carol Gilligan (1982) believed that this was Piaget’s message. She criticized Piaget and other (male) psychologists of harboring negative views of feminine morality, as will be seen following a consideration of Lawrence Kohlberg’s extension of Piaget’s work.

But in defense of Piaget, Eliot Turiel (2006, p. 807) noted that “In considering Piaget’s ideas, Gilligan imposes certainty where ambiguity exists. Piaget did maintain that girls are less interested than boys in ‘legal elaboration’ and that ‘the legal sense is far less developed in little girls than in boys’ (Piaget, 1932/1962, p. 69 & 75)” but that “…in Piaget’s view, the developmentally advanced level of autonomous morality was organized by concerns with mutuality, reciprocity, and cooperation. Piaget saw a strict legal sense for fixed rules that left little room for innovation and tolerance as part of the less advanced form of heteronymous morality. Thus, it is not at all clear that Piaget regarded girls to be less advanced than girls because he thought that girls were oriented to tolerance, innovation with rules, and cooperation” (p. 807). Hence Piaget’s observations do suggest that he observed some gender differences, but these differences are somewhat nuanced; and indeed, one could say that he actually saw girls’ moral understanding as in some ways actually more advanced than boys’.

**Kohlberg and Moral Development**

Lawrence Kohlberg admired Piaget’s approach to studying children’s conceptions of morality. If Piaget saw children as little logicians, Kohlberg viewed them as moral philosophers. Unlike so many other psychologists who concerned themselves with morality,
such as Freud, Skinner, and later Albert Bandura in his research on observation learning and role models, Kohlberg believed that it was not possible to study moral understanding without also coming to grips with philosophy, or more specifically, what could possibly be meant by “morality” (per the opening quote to this chapter; also see Kohlberg, 1968; Turiel, 2006).

In brief, Kohlberg assessed morality by asking children to consider certain moral dilemmas – situations in which right and wrong actions are not always clear. He was not concerned with whether the children decided that certain actions were right or wrong, but with their reasoning – at how they arrived at their conclusions. The story of “Heinz Steals the Drug” is one of his best known examples (Kohlberg, 1963, p. 19):

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman’s husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000 which is half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay for it later. But the druggist said: “No, I discovered the drug and I’m going to make money from it.” So Heinz got desperate and broke into the man’s store to steal the drug for his wife. Should the husband have done that?

**Kohlberg’s Levels and Stages of Morality**

Based on his study of children’s responses to such dilemmas, Kohlberg (1963) expanded Piaget’s two stages into six, organized into three levels – each level consisting of two stages – as follows. Note that cross-references are made, where appropriate, to Piagetian and Freudian levels of development.

**Level I: Preconventional Morality.** The preconventional child thinks of morality in terms of the consequences of disobedience to adult rules in order to avoid punishment. Behaviors are “good” or “bad” depending on their consequences, or in other words, behavior is
guided by rewards and punishments. The child at this stage does not comprehend the rules of society.

- **Stage 1.** This first stage has been called “punishment and obedience,” or “might makes right.” Obey your parents, or these powerful authority figures will physically punish you. The child’s understanding is that punishment must be avoided for her/his own comfort. The child is still unable to view the world from the perspective of others (Piaget’s egocentricity), and behavior is largely guided by Freud’s pleasure principle (is id dominated) – although the ego begins to emerge as the child understands that reality calls for discretion.

- **Stage 2.** By stage 2 the child recognizes that there is mutual benefit in cooperation. This stage has been called “instrumentalism” or “look out for number one” or “what’s in it for me?” The child is a bit less egocentric at this stage, recognizing that if one is good to others then they in terms will be good to you. There is now the notion that everyone looks out for their own needs, but that proper social exchanges are on a “tit-for-tat” basis. In Freudian terms, the reality principle (ego) has emerged to a greater extent at this stage.

**Level II: Conventional Morality.** At this level the child begins to grasp social rules and gains a more objective perspective on right and wrong. Freud would equate this level with superego development, or the formation of a conscience. In these stages Piaget’s egocentrism has largely or entirely vanished.

- **Stage 3.** Stage 3 can be called “interpersonal relationships” or “good girl/boy.” The major motivating factor in good behavior is social approval from those closest to the child.

- **Stage 4.** Maintaining social conventions or “law and order” are brief but apt descriptions of the fourth stage. This sense of order becomes generalized beyond close others to society at large. The concept of “doing one’s duty” is crucial here.
**Level III: Postconventional Morality.** At this level the emphasis is no longer on conventional, societal standards of morality, but rather on personal or idealized principles.

- **Stage 5.** This can be called the “social contract” stage. The understanding is that laws, rules, and regulations are created for the mutual benefit of all citizens. Laws that are unjust ought to be changed. People at this stage understand and believe in democracy in action.

- **Stage 6.** This is the stage of “universal ethical principles.” Right and wrong are not determined by rules and laws, but by individual reflection on what is proper behavior. One might think here of Kant’s categorical imperative in which right and wrong apply equally to all, without regard to consequences (Chapter 3), except that modern ethicists understand the importance of the situation: What is wrong in most circumstances (e.g., lying) might be justifiable in others. But essentially, personal ethical values (e.g., a belief that all life is sacred) take precedence over any and all laws and conventions. In other words, laws are useful only as long as they serve the common good. Civil disobedience (such as the civil rights “sit-ins” in the 1960s) is justified by the circumstances (in this case segregation of the races). As a biblical example, think of Jesus, who said in response to the Pharisees that “The Sabbath was made for man, and not men for the Sabbath.” Kohlberg believed that few people actually reach this stage, but those who do are of the stature of Mohandas Gandhi or Martin Luther King, Jr.

Table 7.1 shows some possible responses to the “Heinz” dilemma, both pro (Heinz should steal the drug) and con (Heinz should not steal the drug). At stage 6 no reasonable “con” response could be found for this particular dilemma. Note that these examples do not by any means exhaust the possibilities for children’s or adults’ rationalizations for Heinz’s behavior.
The examples in Table 7.1 are reasonably straightforward; in fact, they are simpler than the more elaborate answers normally given by children. It takes some training as well as familiarity with guidelines (of Colby & Kohlberg, 1987) to become facile at classifying children according to their narrative reports.

Kohlberg’s theory is really one of cognitive development (per Piaget) as applied to moral understanding because he believed that children developed their moral principles primarily though thinking about them. The progression through the stages cannot be accounted for by simple maturation or development of the nervous system. The child must grapple with these moral issues as they arise, and as with Piaget, disequilibrium occurs; for instance, when a child realizes that punishment for an unintentional infraction seems somehow unfair. Nor did Kohlberg believe that moral understanding was primarily due to learning of social mores because neither parents nor peers can teach new modes of thinking.

Kohlberg’s (1958) doctoral dissertation, upon which he formulated his basic theory, studied 84 boys, most of whom he continued to study over the next couple of decades in his longitudinal research. As a result of his ongoing research he refined his methodology. He also dropped the sixth stage from his research program because so few people ever seem to reach this stage. Thus although this stage is not well-studied, it still retains some theoretical interest. But it is well to remember that the average person does not even attain the fifth stage; postconventional morality is rare, even among adults.

Although research generally supports Kohlberg’s stage theory insofar as children’s understanding of morality is concerned there are some notable exceptions.

**Criticisms and Limitations of Kohlberg’s Stage Theory**

**Cognition versus Affect.** Kohlberg’s studies stressed the cognitive factors in moral understanding. It should be easy to see in reviewing his stages that the higher levels require more advanced levels of cognitive development. But moral judgments can also be influenced by emotions. This is evident, for example, when a jury bases their
verdict not strictly on the right or wrong in a defendant’s actions, but also on their impression of his or her character.

**Moral Understanding versus Moral Action.** An assumption that one might all too easily make is that a person’s moral understanding guides her moral behavior. While this is undoubtedly true to some extent, it cannot be said that moral behavior is anything close to perfectly predictable based on even the reliable classification of a person or child into one of Kohlberg’s levels. To put it differently, understanding what is right does not necessarily translate into doing what is right. Social psychologists have come to understand the tremendous power of the situation in determining the course of behavior, as opposed to belief in abstract principles of morality. Someone may do a good deed like stopping to help a stranded motorist for any number of reasons; because it “seems right,” because of guilt, because it will increase one’s own self-image as a “good” person, because it might bring recognition from others, or simply because one has the time. One might fail to help because there are plenty of other people passing by, and surely one of them will stop (social psychologists refer to this **diffusion of responsibility**).

According to Harré (1983) people respond to different kinds of situations utilizing different levels of morality; and these are based more on societal expectations than on abstract moral reasoning. For example, Harré believed that people in the business world operate more at stage 2 (self-interest); that married couples are guided by stage 3 (mutual exchanges guided by the expectation of approval); and that the legal system is based on stage 4. (For other views on situational determinants of morality see Krebs and Denton, 2005).

Still, it can be argued that behaviors which are congruent with Kohlberg’s stage descriptions depend on a cognitive understanding of that particular level of morality; which in turn assumes a certain degree of cognitive development. In other words, a person may have developed a high degree of moral reasoning in Kohlberg’s hierarchy, yet under some conditions engage in behaviors that do not at all exemplify that presumed level of understanding. Furthermore, the motivations for a person’s specific actions in a given situations are multifarious.
Table 7.1
Brief Examples of Some Possible Responses to Kohlberg’s “Heinz” Dilemma for Each of Three Stages

<table>
<thead>
<tr>
<th>Level</th>
<th>Stage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1: Pro</td>
<td><em>Heinz should steal the drug:</em> He could get in trouble with his wife and family otherwise.</td>
</tr>
<tr>
<td>I</td>
<td>1: Con</td>
<td><em>Heinz should not steal the drug:</em> He could go to prison.</td>
</tr>
<tr>
<td>I</td>
<td>2: Pro</td>
<td><em>Heinz should steal the drug:</em> He will be happy when his wife is cured she can again be there for him.</td>
</tr>
<tr>
<td>I</td>
<td>2: Con</td>
<td><em>Heinz should not steal the drug:</em> The druggist deserves to be rewarded for his efforts in developing the drug.</td>
</tr>
<tr>
<td>II</td>
<td>3: Pro</td>
<td><em>Heinz should steal the drug:</em> Heinz’s wife and family will recognize that he did the right thing by them.</td>
</tr>
<tr>
<td>II</td>
<td>3: Con</td>
<td><em>Heinz should not steal the drug:</em> People will think him a thief.</td>
</tr>
<tr>
<td>II</td>
<td>4: Pro</td>
<td><em>Heinz should steal the drug:</em> He must do what’s right for his wife, but he must also accept his punishment.</td>
</tr>
<tr>
<td>II</td>
<td>4: Con</td>
<td><em>Heinz should not steal the drug:</em> Stealing is wrong, no matter the circumstance.</td>
</tr>
<tr>
<td>III</td>
<td>5: Pro</td>
<td><em>Heinz should steal the drug:</em> His wife’s need outweighs the druggist’s. The law should be lenient with him, or even changed.</td>
</tr>
<tr>
<td>III</td>
<td>5: Con</td>
<td><em>Heinz should not steal the drug:</em> Although druggist is unethical, he nonetheless is legally entitled to compensation.</td>
</tr>
<tr>
<td>III</td>
<td>6: Pro</td>
<td><em>Heinz should steal the drug:</em> Saving his wife is morally a better choice than obeying the law because life itself is sacred.</td>
</tr>
</tbody>
</table>
Moral Hypocrisy in Expressed Attitudes Versus Actual Behavior?

Writing in the Atlantic Monthly political commentator and satirist P. J. O’Rourke (2006) discovered that the political and social values portrayed in recent Gallup polls do not seem to match up with reality, as least as he sees it.

Here are some statistics he presents from the Gallup organization. The Gallup poll is based on stratified random sampling, with the margin of error plus or minus five percentage points. As an exercise, the reader can evaluate these for him/herself.

- Teens reporting that young people should abstain from sex before marriage: 56%. (Girls only: 64%). (Note: The Rutgers University National Marriage Project reports that 65% of young people have sex before they leave high school, a number that some think conservative.)

- Seventy-two percent consider abortion morally wrong (compared with 17% of adults), yet only 42% of teens think that having a baby outside of marriage is acceptable.

- Although less than 50% think that having sex before marriage is acceptable, 62% state that they believe that “young people are responsible enough to be sexually active” (p. 156).

- Only a questionable (to O’Rourke) 17% of teens claim to occasionally use alcohol; only 9% say that they have ridden in a car with a teen that is driving under the influence of alcohol.

- In response to the question “What are teens doing after school?” 44% say homework, just 12% say that they play video games, and only 5% say they talk on the phone.
Cultural Variations. As with Piaget’s stages of cognitive development, Kohlberg believed his stages to be universal. Despite differences in cultures with regard to manners and morals, Kohlberg still believed in the universality of his stages because they referred to general patterns of thinking rather than to specific cultural ideals. For example, if showing disrespect for one’s father is taken more seriously in Shanghai than in Nova Scotia, this might differentially affect children’s beliefs about the severity of punishment for such behavior within these two cultures, yet their reasoning processes would still be the same.

But still, the thinking underlying the stages may itself differ across cultures. Kohlberg’s concepts of postconventional morality reflect Western philosophical ideals based on Enlightenment values of individualism freedom and rights. Kohlberg himself questioned the universality of the last two stages, finding these rarely reached by most of those he studied. His postconventional stage 6 in particular might represent a philosophical ideal that is accessible to select sages, such as Socrates, Buddha, Jesus, Gandhi, and so on; but certainly not to the average person. Also, just as Piaget’s formal level of cognitive development may never emerge in certain cultures in which abstract reasoning (at least as we in our culture understand it), even stage 4 may not be attained in some village-centered agrarian or hunting/gathering cultures.

Also in contrast to individualistic cultures (such as the United States, Australia, and Western Europe), which place a high value on independence, collectivist cultures value harmony and interdependence within the group (family, community, or company), and these concerns usually outweigh those of the individual. To varying extents Asian, African, and Latin American cultures tend to be more collectivist than our own (see Markus & Kitayama, 1991; Triandis, 1995). Differences in moral reasoning can thus be expected based on those different values.

A person from a collectivist society might place the responsibility for obtaining the drug less on Heinz himself and more on his family or on his community (Tietjen & Walker, 1985). Here, Kohlberg’s scoring system, which positions a person at a higher level of morality (stage 4, for instance) based on her/his understanding of justice in a
legalistic sense, would appear flawed when viewed in the context of a differing cultural perceptions.

**Gender Differences.** As was noted, Kohlberg’s original work was done only on boys. Gilligan (1982) found this troubling; first, because results were necessarily limiting, based as they were on just one gender, and second, because Gilligan believed that girls and women use different standards from boys and men in making moral judgments. Her concerns are amplified in the next section.

**Carol Gilligan**

**Gilligan’s “Different Voice” and the Morality of Caring**

Carol Gilligan’s 1982 book *In a Different Voice* is now a classic in the psychological literature. In it Gilligan challenged psychology for its narrow sexism in studying (in most cases) men, and then generalizing their results to both genders. The implicit assumption psychologists (who were, in the early history of field, mainly men themselves) made was that men were the “prototype” of the species. This assumption was also reflected in what is now considered the sexist language of the early literature, where a typical subject of study was invariably referred to as “he.” Today students might find it strange to see books with titles like *Man’s Search for Meaning* and *Man’s Search for Himself*, respectively authored by existential psychologists Viktor Frankl (1947/1963) and Rollo May (1953) (why not substitute “People’s” for “Man’s”?). But then there was always the caveat that “man” was the name of our species (which of course included women as well!).

But Gilligan’s book was more than a feminist critique of everyday sexist biases. In it she developed theoretical ideas of her own; principally for present purposes that women and men differ in their conceptions of moral understanding. She claimed that, whereas boys’ and men’s are concerned with a morality based on rules and abstract principles of justice, girls’ and women’s are based on care and compassion. She contrasted her **morality of care** with Kohlberg’s **morality of justice** and she criticized Kohlberg for stressing just one
side of the equation, namely, the masculine. To quote Gilligan (1982, p. 18):

Prominent among those who thus appear to be deficient in moral development when measured by Kohlberg’s scale are women, whose judgments seem to exemplify the third stage of his sex-stage sequence. At this stage morality is conceived in interpersonal terms and goodness is equated with helping and pleasing others. This conception of goodness is considered by Kohlberg and Kramer (1969) to be functional in the lives of mature women insofar as their lives take place in the home .... Yet herein lies a paradox, for the very traits that traditionally have defined the “goodness” of women, their care for and sensitivity to the needs of others, are those that mark them as deficient in moral development. In [Kohlberg’s] version of moral development, however, the conception of maturity is derived from the study of men’s lives and reflects the importance of individuation in their development.

Thus Gilligan assumed that Kohlberg’s scale systematically discriminated against women by generally placing them lower on his morality scale. Here are some of her anecdotal accounts of the differences between a girl (Amy) and a boy (Jake), both aged 11, in their approaches to the Heinz dilemma:

Fascinated by the power of logic [Jake] locates truth in math, which he says “is the only thing that is totally logical.” Considering the moral dilemma to be “sort of like a math problem with humans,” he sets up an equation and proceeds to work out the solution (p. 26).

In doing so, Jake tried to weigh the value of a life and contrasts this with the money the druggist would make from the sale.

Amy’s account is more equivocal, and would score lower on Kohlberg’s scale. Yet it is thoughtful, and it also reflects the morality of care. Asked whether Heinz should steal the drug she replied:
Well, I don’t think so. I think there might be other ways besides stealing it, like if he could borrow the money or make a loan or something, but he really shouldn’t steal the drug – but his wife shouldn’t die either (p. 28).

Gilligan was careful to make the point that Amy and Jake do not fit stereotypical girl-boy molds either: Amy wanted to be a scientist, Jake an English teacher.

**What the Research Shows**

Common sense or everyday experience might suggest that there really are differences in the ways men and boys as compared to women and girls approach morality with regard to their relative weightings of justice versus care. But so-called common sense and ordinary experience can also lead to misperceptions and stereotyping. So the real question is: what does the actual research show?

The picture here is not exactly crystal clear; it is mixed, and the hypothesis that gender differences in moral understanding remains questionable, with some studies suggesting that such gender differences do exist; but most studies do not, and support for Gilligan’s thesis to date is weak at best (Jafee & Hyde, 2000; Turiel, 2006).

Gilligan effectively used individual case studies (such as those of Amy and Jake) to buttress her arguments, along with a smattering of cultural “common sense” beliefs about the relative roles of women and men – along with limited empirical data. But further studies have, on the whole, failed to confirm her ideas.

Still, Gilligan’s notions of the morality of care versus the morality of justice may retain their cogency, and perhaps they do suggest that Kohlberg may have overlooked an important source of moral reasoning by neglecting the ethos of care; or at least by giving it less weight than justice in his hierarchy.

Perhaps the real truth is that some boys and men do embrace a morality of care and concern; and likewise, some women and girls are more logical and less sociable in their worldviews. Is one point of view concerning moral judgments more advanced or civilized than the
other? Are there two separate “tracts” or dimensions to moral reasoning? These are indeed questions worth pondering, as well as hypotheses for further research.

Other Views – Sigmund Freud, B. F. Skinner, and Albert Bandura

Freud, Skinner and Bandura are major theorists whose perspectives on development, including development of morality, are considered in great depth in later chapters. Here, for comparative purposes, some of their ideas concerning the specific area of morality are considered briefly.

Freud’s Psychoanalytic Theory

Freud believed that the ego – the rational part of the human psyche – grew out of the primitive id, which was more instinctual. The id is the component of the personality that operates on the so-called pleasure principle. Present at birth, the id simply wants instant gratification. The ego develops later in response to the reality principle; in other words, the infant must learn to delay gratification.

Freud believed that around the ages of three to six the child develops sexual feelings toward the opposite sex parent. This introduces an element of competition and rivalry in family relations. The little girl, for example, feels competition with her mother for the affection of her father. The dynamics by which the child resolves these conflicts is referred to as the Oedipus complex in boys, and the Elektra complex in girls. In brief, due to anxiety, the child represses or eliminates from consciousness these feelings, which Freud considered to be sexual, and learns to identify with the opposite sex parent – girls with their mothers, boys with their fathers. In doing so, the child develops a conscience, or superego – that part of the personality that understands “should and shouldn’t.”

As will be seen later, there is more to all of this. But in short Freud believed that boys developed castration fears and girls envied boys their penises during this period of development, which were the causes of their anxieties. Because boys’ castration fears were greater,
their resolution task was harder, and thus they developed stronger superegos than did girls.

To quote Gilligan (1982, p. 7) on Freud:

Having tied the formation of the superego or conscience to castration anxiety, Freud considered women to be deprived by nature of the impetus for a clear-cut Oedipal resolution. Consequently, women’s superego – the heir to the Oedipus complex – was compromised: it was never “so inexorable, so impersonal, so independent of its emotional origins as we require it to be in men.” From this observation of difference, that “for women the level of what is ethically normal is different from what it is in men,” *Freud concluded that women show less sense of justice than men, that they are less ready to submit to the great exigencies of life, that they are more often influenced in their judgments by feelings of affection and hostility*” (quotes are from Freud, 1925/1961, pp. 257-258, emphasis added).

Clearly Freud saw men as more rational and more ethical, at least in terms of their conceptions of justice. In contrast he saw women as more easily influenced by emotion. To him this implied that women were incomplete in their understanding of morality when compared to men.

**The Learning Tradition: Skinner and Bandura on Moral Development**

B. F. Skinner (1971) saw moral development from the standpoint of a behaviorist in that moral behavior reflected the child’s past conditioning: the child learns morality through social reinforcement (rewards and punishments) in response to his or her actions. Social approval or disparagement is provided first by the child’s parents, later by powerful social institutions including schools and legal and religious bodies. True to his behaviorist leanings, Skinner did not view moral behavior as rooted in character, but simply as responses to social conditioning.
Albert Bandura (e.g., Bandura, 1999; Bandura & Walters, 1963) emphasized social aspects of development far more than did any of the other theorists so far discussed. He demonstrated that much of children’s learning is through observation of others, a process called observational learning or modeling. Rather than posit complex family dynamics, rivalries, anxieties and repression per Freud, Bandura believed that gender differences in any sort of behavior – including morality – are largely due to learning of appropriate roles from observing the actions of adults and peers, including vicarious reinforcement (i.e., imagining the consequences of their behavior).

In every society, women and men have different role expectations. They are rewarded for what is considered role-appropriate behavior, and punished for behaviors that are considered inappropriate. For example, boys are not rewarded and may even be punished for playing with dolls.

Parents are the initial role models for what their culture considers children’s gender appropriate behavior, but they also learn from other adults, from their peers, or from watching television or movies. Not only do children learn gender schemas through observation they also learn morality because they understand that they will be rewarded for good behavior and punished or at least not rewarded for misbehavior.

As children develop they internalize the values that they learn along the way. Bandura did not view people as reactive or mechanistic the way Skinner did, nor did he think of them as being governed largely by unconscious forces, per Freud. Rather he saw people as active agents capable of self-regulating their behaviors. That is why mature people who have strongly internalized certain values will often act true to their beliefs even when they are punished for doing so. Bandura (1999) gives the example of Sir Thomas More, who was beheaded by King Henry VIII for refusing to compromise on his religious convictions by allowing him to wed Anne Boleyn.

But Bandura is not a stage theorist. He does not discuss any specific stages in the development of morality. Some regard this as a weakness in his otherwise broad perspective on psychology.
A Brief Comparison of Theorists

The theorists discussed in this chapter differ with respect to the importance they place on rewards and punishments, the active or passive nature of the child, the role of cognition and social interactions, discrete stages versus continuous development, and the identification process in the development of morality.

Turiel (2006, p. 791) noted that the behaviorists and Freudians were reductionistic in their understanding of moral development in that they both viewed moral behavior as under the control of psychological compulsions: “In the Freudian view, an internalized conscience or superego compels behavior, and in the behaviorist conception, actions are compelled by habits of behavior.” In contrast, Bandura and the social cognitive learning theorists, as well as the cognitive developmentals Piaget, Kohlberg, and Gilligan, saw children as active agents in their own development, including their understanding of morality. Bandura stressed observational learning or modeling (of “good” and “bad” behavior by adults) by which children learn to identify with their parents or others. Freud as well thought children learned to identify with adults, but as a matter of fear of parental retribution. Thus in different ways, Freud and Bandura both stressed identification processes in moral development. But for Freud, morality was always a conflict between the desires of the individual (the “pleasure principle”) and the demands of society. This compromise was an uneasy one, with the ego mediating the demands of the id and the superego.

Piaget and Kohlberg saw things differently. Both observed that, through social interaction, children develop a sense of empathy or concern for the feelings of others. Even at a fairly young age children spontaneously learn the value of sharing. Children’s moral understanding (especially for Kohlberg) could be seen as more positive, even altruistic, rather than as negative and avoidant: as they mature, children behave well because they learn compassion by learning to see things from another’s perspective (also a form of identification); and they do not behave well simply in order to avoid aversive consequences. Although the latter, too, can be a motivating
factor, especially in the earlier stages of development, it is given less weight in Kohlberg’s system as the child matures.

As was typical in Skinner’s psychology, he assigned no role to thinking. Also typical was Freud’s belief that unconscious oedipal anxieties underlay moral development rather than conscious thought. By contrast, Bandura, Piaget, Kohlberg, and Gilligan all placed a strong emphasis on cognition – the role of thought and judgment – in moral development.

Developmental scientists generally agree that socialization factors are also important in moral development. For Freud, these played out mainly in family dynamics (e.g., fear of the father; jealousy of the same sex parent; sibling rivalry). But for Bandura, Piaget, Kohlberg, and Gilligan, peer interactions were at least equally important. The latter three were especially concerned with the ways in which children learn empathy and rules while interacting with one another (e.g., in playing games).

Finally, Freud and the cognitive developmentalists were primarily stage theorists in terms of moral development whereas Skinner and Bandura, in the learning theory tradition, were not.

---

**On Inculcating Morality:**

*What’s a Parent to Do?*

Building character in children seems a worthy goal. Research identifying three styles of parenting (Eisenberg, Fabes, & Spinrad, 2006; Hoffman & Saltzstein, 1967; Maccoby & Martin, 1983; Turiel, 2006) shows these to include (a) assertion of power, using mainly punishment, (b) disapproval and withdrawal of affection, and (c) what researchers call *induction*. The latter consists of a reasoned approach with children in which parents facilitate their understanding of morality by careful explanation, including pleas for the concern for the well-being of others. Of these three, induction has been shown consistently to be the most successful method for disciplining children. This finding seems consistent with Kohlberg’s view of the
child as moral philosopher; the child resists blind authority but responds empathetically to a reasoned approach.

Yet Another Perspective: Are Children Smarter and Kinder than all of That?

In “The Philosophical Baby” Alison Gopnik (2009) states: “We used to think that babies and young children were irrational, egocentric, and amoral. Their thinking and experience were concrete, immediate, and limited. In fact, psychologists and neuroscientists have discovered that babies not only learn more, but imagine more, care more, and experience more than we would ever have thought possible. In some ways, young children are actually smarter, more imaginative, more caring, and even more conscious than adults are.” Very young children are empathetic; even altruistic. They get upset when they see someone in pain. They are helpful: “If they see an experimenter straining for a pen that is out of reach, for example, they will obligingly help him to get it. In fact they’ll toddle all the way across the room and clamber over a couple of cushions to get there to help. They will not only get upset when someone is in pain, they will also try to help, petting and kissing to try to make it better” (Gopnik, 2009, p. 211).

Do children have, then, some inborn sense of morality? Research suggests that they’ve evolved to be naturally empathetic. They don’t so much seem learn empathy; rather, they seem to come into the world with empathic capabilities. What Piaget and Kohlberg have studied, then, is more about the cognitive aspects of learning morality (rules; social expectations) rather than the more affective components. But how can some of them become calculating, even cruel, as their development unfolds? How does a child become a psychopath, or is this an inborn characteristic of some children? In the final section “After Words” we again face this question as the author recollects some of his own childhood experiences, reflecting on examples from his schooldays.
For Thought and Discussion

1. If you have children, or have an opportunity to observe them: When playing games such as tag or go fish, can you see as did Piaget the different levels of understanding between children of different ages? Discuss these.

2. In your own experiences how do boys and girls differ in their play patterns with respect to settling differences of agreement about the rules?

3. Can you relate from your experiences with children cases in which boys and girls were punished (perhaps subtly) for engaging in behaviors thought to be gender-inappropriate?

4. How did your parents handle your moral education? If you have children of you own, how do you attempt to teach them morality?

5. Which type of parenting style (power, disapproval, or induction) is illustrated in each of the following scenarios:
   a. “How do you think it would you feel if Tommy bit you?”
   b. “If this behavior persists I won’t speak to you.”
   c. “Do that again and I’ll whap you good.”
   d. “By sharing your treat you’ll make somebody else happy, too.”

****
Notes

2. I worry about the dangers of stereotyping cultures as much as I do about the individuals from those different cultures. As an example, labeling both Japan and Bolivia as “collectivist” cultures may make them seem very similar when in fact they are otherwise quite diverse. Though both may be contrasted to the U.S. on at least this one dimension, the broader view is that peoples differ, even within a given society or culture, and the world itself is not static but constantly changing.
3. See Eisenberg, Fabes, and Spinrad (2006) for an extended treatment of the development of prosocial (or altruistic) behavior.
Part III:

Personality and Social Development:

Psychodynamic Perspective
8. Freud and the Psychodynamic Approach

. . . I have long since known that I am no genius, and I have no longer understood how I could ever have wished to be one. I am not even very gifted; my whole talent for work probably lies in my character traits and in the lack of preeminent intellectual weakness . . . . Do you know what Breuer said to me one evening...He said that he had found out there was concealed in me under the shroud of shyness an immeasurably bold and fearless human being. But I have always believed that and merely never dared tell anybody.

-Sigmund Freud

Freud had noted a little melodramatically that psychoanalysis had presented humanity with the third of three historic injuries to its megalomania. Copernicus had established that the earth is not the center of the universe; Darwin had invited mankind into the animal kingdom; now he, Freud, was teaching the world that the ego is largely the servant of unconscious and uncontrollable forces in the mind. Could one expect the world to understand, let alone welcome, such a message?

—Peter Gay

An old familiar joke goes like this. Two psychiatrists meet in the hallway. The first says “Hello,” then as he passes as the second pauses and ponders aloud “Hmm, I wonder what he meant by that?”

The source of the humor in this joke is simply the Freudian idea that there are hidden motives in people’s behavior, even in the most mundane of activities, in the things we speak or do. Because these motives are unconscious, the speaker herself is unaware of them. All of us have heard of the Freudian slip (of the tongue). If a college professor says “Today we’re going to talk about Sigmund Fraud,” does that tell us that the professor unconsciously disrespects the famous Viennese analyst? Or is it truly “just” an accidental lapse? Has it no special meaning – as in the saying, often attributed to Freud, that “sometimes a cigar is just a cigar.”? While it is true that there are many writers who consider Freud’s contribution to be of dubious
value, many others consider him a true genius (Hunt, 1993). Freud’s ideas are, and always have been, controversial. This chapter seeks not to resolve these controversies so much as to stimulate critical thinking about this man and his ideas.

As most people know, Sigmund Freud pioneered the study of the unconscious mind. He believed that people are largely unaware of their true feelings and motives, especially those having sexual content, or dealing with unacknowledged aggression. Freud considered sex and aggression to be the two basic instincts that motive all behavior, and he believed that people are largely unaware of these driving forces in themselves.

A Preview of Freudian Ideas: Little Hans and The Oedipus Complex

Consider now one of Freud’s most controversial ideas, that of the Oedipus complex. Freud derived his idea from several sources, including self-analysis based on his own childhood dreams and recollections (Demorest, 2005) and on his analysis of patients in psychotherapy, who reported on their earliest childhood memories. Freud believed that the Oedipus complex typically occurred in boys as a part of family relationship dynamics (the counterpart to the Oedipus complex in girls is called the Elektra complex). To understand the dynamics of the child/parent interactions in the Oedipal/Elektra situations it is helpful to first relate the myth upon which Freud based his ideas.

Oedipus, the Myth

Oedipus was, in Greek myth and in the play Oedipus Rex by Sophocles, the child of King Laius of Thebes and his wife, Jocasta. In the play, a prophesy by Apollo’s oracle informed Laius that his infant son would someday kill him and marry Jocasta. To prevent this, the King gave the boy to a shepherd, to be abandoned in the mountains to die. But instead the son was rescued and raised in another land. Years later Oedipus meets Laius on a road, but of course, he does not realize that the man he meets is his father. They quarrel and Oedipus kills Laius, thereby fulfilling half the oracle’s prophesy.
Subsequently Oedipus solves the riddle of the sphinx, ending a pestilence in Thebes which was caused by that creature. As a hero, he marries Jocasta, completing the prophecy. When he later learns the truth about his relationship to Laius and Jocasta, he is so overcome with remorse that he blinds and exiles himself. Jocasta hangs herself. As in all good tragedies, the characters’ fates are sealed from the beginning. How Freud believed that a similar drama unfolds in childhood is considered next.

[The riddle, incidentally, was this: “What walks on four legs in the morning, two legs at noon, and three legs in the evening?” Morning, noon, and evening are metaphors for the three stages of life: infancy (a baby crawls on all fours), adulthood (a person walks on two legs), and old age (walking with a cane). Oedipus correctly answered the riddle: “A man.” The sphinx then destroyed herself, rather than Oedipus the traveler.]

**Oedipus, the Complex**

What could be worse crimes than patricide and maternal incest? Such acts are considered taboos and are universally condemned in all societies. Freud believed that young children harbor sexual feelings toward their opposite sex parents – the boy toward his mother and the girl toward her father. But because of strict societal taboos, expressions of these feelings are not tolerated, so children are discouraged from expressing them. Yet Freud believed that such feelings don’t just go away; instead they are repressed, or forgotten and pushed back into the unconscious. There they express themselves only indirectly and symbolically, in dreams and in fantasies, in which their true meanings are disguised. Between ages three to six children learn to repress such feelings for their parents, but they create conflicts within the child that need further resolution. The child, Freud believed, wishes to “do away with” the same-sex parent and have an exclusive relationship with the opposite-sex parent. So the girl, for example, sees her mother as competition for her father’s affection, and wishes that the mother could be out of the picture. Freud believed that these feelings of the girl for the father are indeed sexual, although (as will be seen shortly) Freud had a very broad definition of sex.
Actually the situation is considerably more complicated. The child’s feelings toward each parent are not entirely one-sided but are rather characterized by ambivalence, as when the boy Hans aggressively punches his father and in the next moment kisses those spots in one of Freud’s better known case studies (Freud, 1909/1959). Indeed, ambivalence is every bit as characteristic of the Oedipal relationship as competition. And Freud recognized that ambivalent feelings are a part of all relationships. In the most loving and committed relationship there are always times during which the partners feel anything but loving feelings toward one another. And what proud parent has never said (or thought) “I’d like to kill my kids!”?

The Displacement of Emotions

In what is perhaps Freud’s most famous work, The Interpretation of Dreams (Freud, 1900/1965), he discussed how repressed feelings appear in dreams in which the anxiety producing object is symbolically displaced to a different source. In a dream about a fearful figure, such as a wild animal or an ogre, the beast in question actually represents someone else – a boy’s father, for example, whom he is angry with or afraid of. In interpreting dreams and fantasies, Freud distinguished between the dream as recounted by the patient, which he referred to as the manifest content, and the unrecognized symbolic meaning as the latent content. It is the job of the psychoanalyst to help the patient interpret and understand the latent content (e.g., ogre equals father; it is the father who is the real object of the displaced emotion).

Displacement occurs not only in dreams but also in everyday life. A comic example is that a man is treated unfairly by his employer, then comes home and yells at his wife. If his wife doesn’t feel she has the power to speak up for herself she may instead vent her anger on her oldest child. The oldest child then takes it out on a younger sibling, who then kicks the dog, who in turn bites the cat, and so on, through an endless chain of displacements of aggression. But as it stands this little scenario misses an important point, which is that for Freud displacement is often an unconscious process, and the object of displacement then becomes a symbolic representation of the true
source. Freud believed that this was the case with a phobia of “Little Hans;” Hans had a fear of horses, and in this phobia the horses were merely symbolic of the true source of the boy’s fears: his father’s wrath.

**The Case of Little Hans**

Freud (1909/1959) highlighted the Oedipal struggles of a little boy named Hans. Freud began his study of Hans when he was only three, but his observations continued until the boy was five years old. Freud met Hans as a young boy at least once, and was impressed by his precociousness, or in Freud’s admiring words, the boy was “a paragon of every wickedness” (Freud, 1909, p. 15; cited in Gay, 1988, p. 256). But for the most part Freud’s analysis was mainly based on his father’s reports, some of which were conducted by correspondence. (Of interest also is the fact that this was Freud’s only formal analysis based on the study of an actual child – his psychoanalytic theory of development is based mainly on adults’ recollections of childhood experiences.)

Hans’ mother had been a patient of Freud’s and his father, Max Graf – a physician and musicologist – both attended Freud’s Wednesday night psychoanalysis study group. Both parents considered themselves relatively enlightened in their approach to child rearing, or in other words, they were open to Freud’s ideas about frankness concerning sexual matters. But their earlier attempts at parenting with Hans were not as enlightened as the mother, concerned with Hans’ touching his penis, told the boy that if he continued she would send him to the doctor to cut off his “wee-wee-maker.” And before his sister was born the parents could do no better at first for an explanation than invoking the old “the stork brought it” story. As Hans was a bright boy who doubted this account they then explained that the baby developed inside the mother and eventually was expelled in the matter of a turd, or “lumpf” as the German slang had it. Needless to say this, too, was a rather poor account of biological pregnancy and childbirth. It led Hans to associate babies with excrement, which he viewed as rather disgusting.

From the father’s reports it seemed obvious that the boy had strong ties to his mother that were both physical and emotional –
Hans asked her to touch his penis as well as for other, more characteristically childish, forms of physical affection. But the kinds of anxieties Hans developed were no doubt exacerbated by his mother’s threats to have his father cut off his penis if he continued to masturbate.

Odd though it may seem today, such threats were quite common in European society in those times. Childhood masturbation was – and is – common, but parents were especially embarrassed by its practice in those days. So Hans developed very real castration fears, which is one symptom of the boy’s Oedipal complex. But Freud believed that even without such threats, a boy notices that girls and women do not have a penis, hence, he perceives them as castrated or incomplete boys or men, and thus develops castration anxiety.

Hans came to develop his horse phobia. He was so frightened of horses that he feared leaving his house. While the site of horse-drawn carts and carriages was common in his times, there was no obvious reason for Hans or other children to fear them. But Hans was especially afraid of white horses with black muzzles and blinders. His specific fears were that a horse would bite him or would fall over. Freud saw these fears of horses as displaced fear of his father. The father, it happens, wore a black mustache and spectacles. In Freud’s interpretation the blinders thus symbolized his father’s glasses and the muzzle represented his moustache. Hans’s fears that a horse might bite him symbolized his fear of castration by his father, as punishment for his masturbation and his sexual desires toward his mother. The fallen horse symbolized his guilt and fears over “killing” his father out of jealousy.

A discussion of how Hans resolves his Oedipus complex, as well as a discussion of the female equivalent, the Elektra complex (which includes the idea that girls and women experience penis envy – roughly the parallel of castration fears in boys), must wait until a more complete discussion of Freud’s theory of psychosexual development unfolds. For now it is well to ask whether Freud’s ideas resonate at all with readers. Often students of today (just like people in Freud’s own times) have a great deal of trouble accepting many of these ideas, but especially ideas like castration fears in boys and penis envy in girls. Regardless of what one thinks of these particular
concepts, however, it would be a shame to reject all of Freud’s ideas based on the evaluation of just his most controversial ones. To gain a perspective on Freud’s own views it will help to look at the times he lived in, and how they may have influenced his thinking.

**Sigmund Freud: The Man and His Era**

To be certain, Freud had great difficulty finding acceptance in his own times. Freud was born in Moravia – now part of the Czech Republic – in 1856, but his family moved to Vienna four years later, where he spent most of his life. Freud was a brilliant but complex man. The fact that he was a Jew, at a time when anti-Semitism was strongly prevalent in Europe, contributed to this non-acceptance and Freud’s feelings of being an outsider. But it was also true that people didn’t want to think of themselves in such a base, animalistic way – as not being fully aware of their true motives, and of behaving according to hidden motives which were essentially sexual and aggressive in nature. While today’s students might find some of these ideas to be odd or quaint rather than threatening, they, too, often have trouble accepting them.

It does seem obvious that the Oedipal fears of castration observed in Hans appear to have been very real. But consider the times and place in which this boy lived. Hans’s parents *did* in fact intimidate him with the fear of castration, and this practice was fairly common in the Victorian society in which Freud himself dwelled as a child (the era ends roughly around the start of the twentieth century, when Freud first began to publish his most important and controversial writings). People *were* in fact inclined to prudishness, and to ignore their sexual feelings and impulses, which were not openly discussed in “polite” society – a trend that lasted to some extent well into the middle of the twentieth century, when the then shocking Kinsey reports on male and female sexuality appeared (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). Society was then at the threshold of the so-called sexual revolution of the 1960s which was given a hearty boost by the availability of the birth control pill. But in Victorian England it was common to cover piano legs with lace doilies (and much of this prudishness was evident on the European
continent as well). This practice seems to have been a form of modesty, for showing bare skin was considered quite immodest and indeed, improper – even on wooden furniture! The demand for modesty was especially pronounced in women, who wore lengthy dresses with tight corsets and bustles, but both sexes wore bathing suits that covered most of their flesh at public beaches or in other areas in which recreational swimming took place. People were not at all open in their discussions of sex, especially with members of the opposite sex, and even referred to the leg euphemistically and generically as a “limb.” In Victorian England, proper women of the upper classes were taught that sex was for reproduction, not for pleasure, which engendered a double-standard: many men sought the services of prostitutes for satisfaction that was often not available to them in their marriages. Abstinence was then the chief form of family planning. Perhaps it is plausible, then, to suspect that the public suppression of sexual expression actually lead to private repression.

To his credit, Freud conducted a continuing and penetrating psychological self-analysis throughout his years as a practicing psychoanalyst. He realized that he had, indeed, been his mother’s pet (Freud was the first of eight children, not including two adult stepbrothers), and that he developed possessive feelings toward her. He recalled having erotic feelings for his mother at an early age after seeing her without clothing. He also always harbored very ambiguous feelings toward his father. When a brother died in infancy, he felt a great deal of guilt; it was as though he believed that, through his jealousy and secret wishes, he was responsible for the death of this child (Demorest, 2005). Demorest also makes the case that Freud’s break with his early mentor and collaborator, Joseph Breuer, involved displaced feelings of competition with his father; and that his break with his follower Carl Jung involved displaced feelings of sibling rivalry (competition with and jealousy of brothers and sisters); Freud allegedly feared Jung as a usurper of his position of leadership of the psychoanalytic movement. Demorest argues, however, the reality was different: Jung simply disagreed with Freud about the importance he placed upon sexuality, as did many of Freud’s successors, and Jung also had his own, differing ideas about the nature of the unconscious mind. 

5
Like Piaget, Freud was very studious as a youngster and he read extensively on a wide range of topics, including philosophy and religion. He decided on medicine as a career because of his interest in research, but also he felt that as a Jew in those times he would (and in fact did) experience discrimination in an academic setting\textsuperscript{6}. Despite the dual obstacles of ethnic prejudice and Victorian reserve, Freud’s ideas began to gain credence in many circles; increasingly so after 1900. And despite its controversial nature, sexuality was nonetheless a topic of great interest in those times. (Indeed, any topic that is suppressed in a culture assumes an air of extreme interest.) Thus according to Demorest, “Rather than being the first to broach a taboo subject, then, Freud fit in with a prevailing cultural trend in emphasizing the importance of sexual impulses in psychic life” (2005, p. 176). Also, Freud was by no means the first person to grapple with the nature of the unconscious mind as a repository for sexual and aggressive impulses. The way had been led by philosophers going back at least to Schopenhauer, who stressed the importance of the sexual instinct and formulated a concept of an unconscious will (Ellenberger, 1970). But Walter Kaufmann (1980/1992) rightfully proclaimed Friedrich Nietzsche the first \textit{depth psychologist} (one who deals with the psychology of the unconscious\textsuperscript{7}). Freud acknowledged his debt to Nietzsche in anticipating many of his own ideas, including the notion of sublimation (discussed below). He also worked with and was influenced by neurologists Jean-Marin Charcot and Joseph Breuer, both important pioneers in the study of the unconscious mind.

Charcot used hypnotism to study the psychological disorder then known as hysteria. This disorder is characterized by physical symptoms such as blindness or partial paralysis that have no known neurological cause. Hysteria was much more common in women, and sometimes included false pregnancy. Hysteria, though rare today, was not uncommon in Freud’s time. Charcot observed that hysterical patients were highly suggestible because he could induce symptoms of hysteria from them under hypnosis. Freud excelled at languages and translated some of Charcot’s work from French to German (he also translated philosopher John Stuart Mill’s works from English to German; Kaufmann, 1980/1992).
Working with Breuer, Freud came to believe that hysteria had psychogenic origins. The two men published Studies in Hysteria in 1895 (Breuer & Freud, 1895/1955). Freud thought hysteria resulted from guilt over repressed sexual desires. He and Breuer disagreed on the causes of hysteria, however, as Breuer believed that not every case of hysteria was due to repressed sexual feelings (Demorest, 2005). But it was Breuer who came to recognize that hysterical patients could be relieved of their symptoms by talking through their problems, which influenced Freud in his development of the psychoanalytic method. Breuer noted that when patients came to see the actual psychological reasons for their symptoms they also experienced an emotional release, or catharsis. Freud found this “talking cure” a more effective form of therapy than hypnosis and it became the foundation of his method of therapy.

Freud founded the International Psychoanalytic Association in 1910. Its membership included many illustrious names, including Freud’s protégé, Carl Jung. Freud installed Jung as president of the society partly because he believed that this man could bring greater respectability as a relative outsider, as Jung was from Zurich, and was neither Jewish nor Viennese. He also promoted Jung as his heir apparent in the psychoanalytic movement. However, the two men failed to see things in the same light. Jung thought himself too independent minded for Freud; he had his own ideas, so a break seemed inevitable. Indeed, many strong minded followers of the psychoanalytic movement also broke with Freud, including Wilhelm Stekel and Alfred Adler. Perhaps Freud’s dominant personality and his insistence on ideas about the importance of childhood sexuality made it difficult for others to remain loyal to him. But Kaufmann (1980/1992) and Gay (1988) also make the case that some of Freud’s early followers could themselves be difficult.

But Freud was a great thinker and a prolific writer who did, indeed, change his mind about some of his earlier ideas. He developed the idea that neurosis was often caused by parental seduction of children, but he abandoned this when he came to believe that children had difficulty separating fantasy from reality. In adult recollections of childhood sexual experience, he believed that these reported acts of incest were due to the child’s imagination, or really, to the
unconscious wishes that patients had experienced as children. (Freud’s conclusion, though debatable, at least it shows that he did not cherish his own ideas so greatly that he was incapable of change.)

Another major change in Freud’s thinking came when he posited the existence of the death instinct (sometimes called Thanatos) – the motivating factor behind aggression – in addition to his libido, or sexual instinct. This change in thinking began with his book Beyond the Pleasure Principle (Freud, 1920/1950), and appears to have been influenced by negative events that he witnessed or experienced himself, including the first World War and the death of his daughter, Sophie.

As will be seen subsequently, Freud did not have a very positive view of humanity, yet he had a lively sense of humor. In spite of his desire to make sexuality a more open topic, he was himself rather conventional and conservative with respect to morality (Gay, 1988; Hunt, 1993). It is true that he was for a time infatuated with cocaine for personal use as well as for its presumed remarkable medical properties in his youth; but he later came to see that it was an addictive drug that could create more problems than it solved. Freud was, however, very addicted to cigars and was unable to give them up, even when he most needed to, for Freud suffered from cancer of the jaw for the last sixteen years of his life.

Freud left Vienna for London due to the threat of Nazism in Vienna, and died a year later in London in 1939.

From The Analyst’s Couch: Some Tried and True Humor

[The following groaners may not improve your mental health, but they may provide a welcome relief from too much studying.]

Oedipus Complex
A young man goes home to Mom for a nice hot meal. He tells his mother that the psychiatrist says he suffers from an unresolved
Oedipus complex. She replies: “Oedipus-shmoedipus, as long as you love your mother you’ll be alright.”

Chicken Complex?
A man pleads with a psychoanalyst to help his wife, who thinks she is a chicken.

**Doctor:** How long has she had this condition?

**Husband:** For over twenty years now.

**Doctor:** So, why have you waited so long to have her treated?

**Husband:** Because we needed the eggs!

Rorschach Test
A psychiatrist asks his patient to look at some ink blots and make up a story about what he sees. For the first card he reports that he sees a man and a woman who are making love. The next card he sees the same thing, only from a different angle, and so it goes for each of the cards.

**Psychiatrist:** There’s nothing wrong with you except that you are obsessed with sex.

**Patient:** What do you mean I’m obsessed – these are your pictures.

**Woody Allen Joke** (from the film *Annie Hall*)
The Allen character (Alvy Singer) tells Annie (played by Diane Keaton) he’s been in psychoanalysis for fifteen years.

**Annie:** Fifteen years?

**Alvy:** Yes, I'm going to give him one more year, and then I'm going to Lourdes.

**Groucho Marx Joke** (Later Adopted by Rodney Dangerfield)
I told my psychiatrist that everyone hated me. He told me I was being ridiculous. Everyone hadn't met me yet.
Freudian (Psychoanalytic or Psychodynamic) Therapy

Freud invented the “fifty-minute hour” which allowed him to see many patients each day with a small break in between sessions, a model for practice still utilized by most psychotherapists. In the final hour of the day he became accustomed to putting himself on the couch (so to speak) for self-analysis. The therapeutic method advanced by Freud is called psychoanalysis, or the psychodynamic approach.

Anxiety and Repression

The purpose of psychoanalysis is to uncover unconscious material – feelings and motives which exist in the mind of the patient but of which the patient lacks conscious awareness. According to Freud traumatic events and associated anxious feelings become repressed, or buried in the unconscious mind, because they cause so much psychological pain that people simply cannot deal with them. Repression is then a reaction to anxiety; a way of dealing with it by pushing it aside so far that it becomes unconscious, in a kind of motivated forgetting. For Freud repression was the most important of many defense mechanisms that protect people from being overwhelmed with anxiety. But a price is paid for failing to recognize unconscious feelings and impulses, as repressing them can lead to neurosis, or psychological maladjustment. Hysteria is one kind of neurosis that was previously discussed, but there are many other kinds, such as free-floating anxiety or obsessive-compulsive behavior. Freud used psychoanalysis to reach into the depths of the unconscious, believing that a cure lay in revealing and dealing with its contents.

Therapeutic Techniques

Freud used two techniques toward this purpose: free association and dream interpretation. In free association the patient reclines on a couch with the therapist seated behind, out of direct view. The patient then reports whatever comes to mind, freely, and much of the time the therapist simply listens and accepts non-judgmentally whatever the patient reports, which is kept in strict confidence. If the patient relaxes and talks long enough, eventually she or he is likely to touch on
unconscious feelings. It is important for the patient to try to avoid self-censorship in relating his/her thoughts and feelings.

In the second technique, dream interpretation, the patient reports the dream \textit{(manifest content)} after which the therapist may suggest an interpretation, or in other words, the therapist attempts to find the symbolic meaning of the dream \textit{(latent content)}. Freud believed that dreams were “the royal road to the unconscious.” He also believed that dreams represent unconscious wishes, so that a dream becomes a \textit{wish-fulfillment}. The patient helps the interpretation process along by free associating on the content of the dream. But it is usually the therapist, rather than the patient, who deciphers the meaning of all of these associations. That is because of \textit{resistance} on the part of the patient to the interpretation. In resistance, the patient has trouble accepting the interpretation (assuming it is accurate) precisely because bringing the associations to light re-ignites the anxiety that fueled the repression in the first place. Of course Freud thought that resistance was an impediment to progress in therapy. But he also believed that it was also both necessary and inevitable. And resistance itself was unconscious; the patient was unaware that he or she was resisting until brought to light by the psychoanalyst.

Freud observed another phenomenon that often occurred in conjunction with resistance, and that is the displacement of feelings for someone else onto the therapist. His term for this special type of displacement was \textit{transference}. Transference can involve any kind of emotion, including sexual attraction or affection, but anger is a very common emotion in transference. If a man’s father was very strict and authoritarian, for example, the male patient is likely to see the therapist’s interpretations as criticisms, which invoke the same kind of angry response that he would typically make to his father. Like resistance, transference was considered to be both inevitable and necessary in the process of \textit{working through} a patient’s difficulties.

\textbf{Countertransference} occurs when the therapist responds emotionally to the patient, by unconsciously displacing her/his feelings for someone else to the patient. While countertransference is not desirable (remember, the therapist is supposed to be an impartial and accepting listener), it can be helpful to the therapist when recognized. Psychoanalysts should never stop learning about
themselves, and may themselves be undergoing therapy at the same time they are practicing it. In fact, being psychoanalyzed is a requisite for being a psychoanalyst, and beginning therapists are supervised in their sessions with clients by more experienced therapists. Part of the job of the supervising psychoanalyst is to detect countertransference.

Transference and other forms of displacement often occur in the course of a person’s daily existence, too. Freud himself seemed to have problems with authority (i.e. father) figures, and perhaps transferred these emotions to others, as previously noted.

During the therapeutic process, through interpretation and resistance, the patient eventually acquires insight into his/her neurosis. For Freud, insight connoted a deep, emotional understanding of one’s situation, as opposed to a kind of intellectual, surface understanding. There is, after all, a difference between the patient saying “I guess you’re telling me that I displace my angry feelings toward my mother onto my wife,” and him saying “Wow, now I really see how I displace my angry feelings about my mother onto my wife!” The difference may seem subtle, but according to Freud, it definitely is not, because insight also implies an acceptance, not a mere acknowledgement, as resistance is finally overcome. The patient who achieves great insight into his/her neurosis is, at last, cured – at least in a relative sense (for who, after all, is perfect?).

Freud’s Psychosexual Theory of Development

The Basic Instincts: Sex and Aggression

For Freud the source of all human activity is psychic energy. Freud believed that this energy is a limited resource in the sense that channeling this energy into one activity prevented it from being used in another. Thus a person who spends a lot of energy venting anger at his or her spouse may have little or no energy left over to spend on the needs of his or her children. Or vesting most of one’s energy in one’s workplace may leave little left over energy for social activity. The two basic instincts that motivate or propel psychic energy (as introduced briefly above) Freud called libido and the death instinct or the drive to aggression. In his earliest writings Freud thought that the two basic instincts or drives were self-preservation or survival (e.g.,
needs for hunger, thirst, shelter, and so forth) and species-preservation. The need to preserve the species was found in the sex drive. But later he merged these two notions – preservation of self and of species – into libido as the single source encompassing both kinds of drive. Libido, then, seeks to preserve life, whereas the death instinct seeks to void it.

But for Freud life affirmation (hence libido) *is* sexual. Freud defined sex in a very broad way that encompasses all physically pleasurable activities, and even constructive non-physical activities (e.g., thinking, sports watching, stamp collecting) as well. To see why this is so requires an understanding of Freud’s psychosexual theory of development, for Freud believed that libido attached itself to certain erogenous zones of the body that provide the source of pleasure for growing children. This investment of libido in a particular erogenous zone is called *cathexis*. As will be seen shortly, the primary objects of cathexis include the mouth in the first (oral) stage, the anus in the second stage, and the genitals at later stages.

But what can be said about the death instinct and its relationship to aggression? Here (as in certain other places) Freud is a bit vague. Freud famously claimed that “the goal of all life is to die” (1920/1950, p. 38). Perhaps in a sense death is the ultimate solution to the problem of psychic tension or drive: at last there is nothing more to wish for! But probably his own observations of human beings engaging in constant warfare and other destructive activities led him to view the human drama through a very pessimistic lens. As to the relationship of aggression to the death instinct, Freud simply thought of aggression as self-destructiveness turned outward and displaced onto others. Turning it inward upon oneself is inhibited by the life instinct, part of which is the need for self-preservation. In any case, libido remained paramount among these two basic motivating and conflicting drives in Freud’s psychology.

**The Id and the Pleasure Principle**

The idea that people seek to gain pleasure and to avoid pain (the *pleasure principle*) did not originate with Freud; it is indeed a very old idea. The pursuit of pleasure or happiness was a foundation in the thinking of the Greek Epicurean philosophers, for example, and is a
cornerstone of the utilitarian economics of John Stuart Mill – and it even fits in with the survivalist ideas of Charles Darwin. But great thinkers usually disagree as to the relative merits of maximizing individual happiness in comparison to the virtue of bringing happiness to the greatest number of people.

But the pleasure of others is not a concern of the newborn infant in Freud’s view. For the very young child is driven by desires of the id (or das es in German, meaning the “it”), the most primitive component of personality that is present at birth and operates solely on the selfish version of the pleasure principle: it wants, it craves, it demands – and it wants satisfaction right now! When hungry, the infant wants (and needs) the breast or bottle; when tired, it wants to sleep. Cognition, such as it is at this stage, consists of what Freud called primary process thinking, in which a primitive mental image of the desired object (e.g., breast; food) is formed. This mental image represents the infant’s symbolic attempt to reduce the psychic tension created by hunger, but obviously, an image alone does not satisfy – instead it becomes an early kind of desire for wish-fulfillment.

The id is not a property of just the infant personality. It continues to motivate and influence behavior throughout the life span. It expresses itself in dreams in the form of wish-fulfillment. Dreams of eating, sexual activity, or other forms of pleasure seeking are obviously quite common in adulthood.

The Ego and the Reality Principle

Eventually the infant learns that fulfillment of its needs (pleasure) can come only through delayed gratification. Freud called this kind of understanding – that the child’s satisfaction must sometimes await a more opportune time – the reality principle. It is with the development of a component of personality called the ego (in German the words Freud actually used are das Ich, or the “I”) that the child learns to cope with such external demands as being hungry when Mom is just not around – but if the child waits it will eventually be fed. In adult parlance, the child simply learns to be rational or reasonable. This kind of thinking, which Freud referred to as secondary process thinking, is obviously more advanced. Although the term “ego” has a slightly negative connotation in ordinary usage
(“what a big ego she has”) it really means something different in Freud’s system, where a strong ego indicates the ability to effectively deal with life’s pressures (i.e., with reality).

Interestingly Freud saw the ego as growing out of the id but still drawing on the same psychic energy. In essence the ego is in the service of the id and has no independent existence; or in other words, the reality principle is in service to the pleasure principle. This notion appears to conflict with the ideas of the later ego psychologists (discussed below).

Psychoanalysts sometimes refer to the ego as the “organ of reality” but this is only a metaphor. Physiologically speaking, the ego is a hypothetical construct and not a literal part of the brain’s anatomy. The ego is a kind of functionality, not a physical structure, hence cannot be located in the brain (nor can the id, nor the superego).

The Superego

Society makes demands on all of us. People are forced to compromise between satisfying their cravings and doing what is right and proper. The Biblical Ten Commandments provide moral guidelines that are close to those found in most religions and cultures: we ought not to steal from our neighbor, nor should we lie nor kill nor covet, and so forth. The superego (or das Überich in German; more like the “over I”) develops in the child as it becomes aware of rights and wrongs. It is in part an internal moral compass or conscience. It is the last of the three components of personality (id – ego – superego) to emerge. The superego can deny both the id (“I want it now”) and the ego (“I’ll wait until a more opportune time”) with the recognition that some things just aren’t right (“I ought not to have it at all”).

Another part of the superego’s makeup is the so-called ego ideal, or the kind of person whom one aspires to be; one’s better moral self. Perhaps a child has an adult figure that she or he admires – such as a Mother Theresa, or a Michael Jordan, or even a parent or a teacher – who serves as a kind of model for the ego ideal.

Interrelationships Between the Components of Personality

There are obvious interpsychic conflicts between these three components of personality. If the id wants and the superego says
“can’t have,” it is the ego that mediates between the two, and with the demands of reality. Thus the ego balances instinctual or learned demands against societal strictures in a realistic manner. Psychologists often speak of ego strength, which is the quality that enables an individual to function effectively and realistically in a complex social world.

Levels of Awareness and Their Relationships to Components of Personality

Freud identified three levels of awareness of the mind: the conscious mind, the unconscious mind, and the preconscious mind. The conscious mind consists of all thoughts and feelings of which one is directly aware at a particular moment. The unconscious mind consists of repressed thoughts, feelings, and motives of which we are not aware. Freud used the analogy of an iceberg to compare the conscious to the unconscious mind, with the tip (the part showing above the water) representing consciousness, but with the bulk of the mass underwater representing the unconscious. In other words, Freud thought that most of the psyche is hidden from awareness. The unconscious mind, then, contains an abundance of sexual and aggressive content that people just can’t see in themselves without a lengthy time in psychoanalysis.

The preconscious mind consists of thoughts and feelings that are not conscious at the moment, but which are capable of being brought into conscious awareness. In terms of the components of personality, the id desires are unconscious, with ego and superego partly conscious (but mainly preconscious) and partly unconscious.

Defense Mechanisms of the Ego

There are many ways in which the ego protects itself by blocking anxiety. Two of these that have already been discussed are displacement (in which emotional reactions such as anger are transferred from the genuine target or cause of the anxiety to another source) and repression (or the motivated forgetting of anxious thoughts and feelings). In addition to these, Freud and later depth
psychologists\(^9\) (e.g., Adler who wrote on compensation, Anna Freud who identified identification with the aggressor) noted the following:

Civilization and Its Discontents: 
Freud’s Bleak Views on Culture

In *Civilization and Its Discontents* (Freud, 1930/1961) Freud puts society itself on the couch. Written rather late in his life when Freud was suffering from cancer of the jaw, Gay (1988, p. 543) calls this work Freud’s “most somber book.”

The sources of Freud’s pessimism about the state of humanity are easy to identify. These include a long history of warfare – most recently for him the first World War – and the disappointment in the collapse of the promise of the era of the enlightenment for a better and more peaceful world through science and technology. Through their laws, religious beliefs, and moral prescriptions, cultures serve to inhibit (suppress and repress) man’s instinctual tendencies toward sexual promiscuity and aggression, but never completely so, and the price paid for society’s imposition of morality is a heavy one. To escape from the limitations on natural desires imposed by society, and to avoid the despair that comes with aging, the wasting away of the body, and ultimately, death, society provides other means of gratification. Religion, Freud (who was an atheist) believed, was only one of many methods of relief from the harsh realities of life.

Without societal strictures, Freud claimed, mayhem would result in the form of assaults, rape, murder, and incest. With them these horrors are kept in check, though never entirely so. According to Gay (1988, p. 548), Freud thought that “At best, sensible human beings may arrange a truce between desire and control.” In other words, civilization was, for Freud, a necessary evil. It puts a check on man’s natural instincts so that sexual and aggressive desires are sublimated into socially acceptable forms, including work, hobbies, and artistic endeavors.

Freud’s pessimistic views were not unlike those of the philosopher Thomas Hobbes, who believed that only submission to a powerful state government could prevent an existence of “… continual fear,
and danger of violent death; and the life of man, solitary, nasty, brutish, and short” (Hobbes, 1657/1957, p. 186). Note how far Freud’s views are from the optimistic Rousseau who (recalling from Chapter 3) believed in the “nobility of the savage;” that people could exist happily in a natural state, without the impositions of society.

What would happen if society’s influence were somehow suddenly removed? Would id desires become unleashed with no socially based superego structure in place to keep behavior in check? This hypothetical question was addressed by William Golding in his provocative book The Lord of the Flies (Golding, 1954). In this novel a band of boys become deserted on a tropical island. Schooled in the English system, these boys of a privileged class have indeed developed some superego strengths and clearly understand the difference between rights and wrongs. Yet over time, most revert to a very primitive form of savagery as their little society disintegrates into a chaotic form of tribalism.

Freud himself asked the ultimate question, as though he were uncertain himself, as to “whether in the great struggle between life and death, life would prevail after all” (Gay, 1988).

- **Regression** is a return to an earlier stage of development, when life was simpler and more pleasurable. For example, an older sibling may take to thumb sucking after the arrival of a new baby. The dynamics here include rivalry and imitation resulting from the baby’s envious situation with all of the attentions paid to it by the parents and by others. In adults, fingernail biting is a kind of regression to the oral stage (see below) of development. Regressions are usually a temporary response to stress or anxiety.

- **Fixation** is more than just regression; it is being literally stuck at an earlier stage of development. People who are excessive in eating, drinking, smoking, or sucking on hard candies may be fixated at the oral stage of development.
• **Rationalization** is a way of reinterpreting reality in a way that allows a person to save face. Consider the example of a person who claims that, after being dumped from a relationship, that the decision was a mutual one. This defense mechanism is used more than any other to protect one’s self-esteem, especially to avoid feelings of rejection or loss. Other examples: “I didn’t really want to go to *that* college anyway;” “Brad only won that contest by cheating;” or “She doesn’t look that great, that outfit hides her worst flaws.”

• **Denial** is a way of avoiding anxiety by failing to recognize the threat. Denial is a common reaction in people who have lost a loved one, such as a spouse, child, sibling, or close friend. In these cases denial isn’t always intellectual; one knows at some level that the person has died. But it is the emotional acceptance of this fact that is lacking.

• **Reaction formation** consists of thinking or acting in opposition to one’s true feelings. An example is a mother who resents the time demands of her baby, but who then exaggerates her concern for the child by being overly doting or protective.

• **Projection** involves imputing a negative trait or impulse of one’s own to someone else. Projection is common among couples where one partner is very jealous of the other, in which the man or woman attributes his or her own desires for another person to his or her partner or mate.

• **Introjection** contrasts with projection in that a person incorporates the values of another person or group (as opposed to attributing one’s own negative traits on another). Think of a teenager joining a club or gang whose values they wish to adopt in order to protect themselves from an external threat.

• **Identification** is less extreme than introjection; one identifies oneself with a person, group, or institution that one respects or
values. A very common example is to speak of “our” win when one’s favorite sports team has just defeated an opposing team.

- **Identification with the aggressor:** Anna Freud (Sigmund’s daughter) described this defense mechanism. In one case a boy who was physically abused by a bully adapted his ways by copying his behavior. She noted that “By impersonating the aggressor…the child transforms himself from the person threatened to the person making the threat” (A. Freud, 1937/1946, p. 121).

- **Compensation** (due to Alfred Adler) pertains to the human tendency to make up for inadequacy in one area by developing strength in another, or by a determined effort to overcome one’s deficit. Theodore Roosevelt was a sickly child with poor eyesight and asthma. Through a self-induced program of fitness he developed strength and stamina and engaged in activities (hunting; boxing; war) considered very masculine in his times.

- **Undoing** is an act of reversal of a previous deed. In Shakespeare’s play Macbeth, Lady Macbeth compulsively washes her hands uttering “Out, damned spot! Out I say!” as she attempts to rid herself of guilt over her role in Duncan’s murder. More commonly, undoing can be seen in any act of contrition, in which an aggressive act is countered later with pleasantry – but without formal acknowledgment of a wrong having been committed.

- **Intellectualization** is a way of minimizing a threat by couching it in objective terms. As an example, a person who is bitter about a love affair gone wrong might say: “What is love, anyway, except a series of hormonal reactions in response to a conditioned stimulus.”

- **Sublimation** is a kind of displacement in which the displaced act is socially useful or acceptable. Freud believed that so much of our psychic energy was sexual (i.e., libido); but people can’t
spend all their time having sex! Instead, this energy can be redirected or sublimated into useful, creative or work activities.

Remember, defense mechanisms are *unconscious* processes. Everyone uses defense mechanisms and doing so does not necessarily indicate the presence of a neurosis. Indeed, except in extreme cases these have obvious adaptive functions: they can protect an individual’s self-esteem or keep a person from being overwhelmed by anxiety. Denial is a good example. When bothered by an ailment such as a headache or stomach upset, a person who has a crucial task to perform, such as competing in an athletic event or delivering an important speech, may choose to simply deny that pain and temporarily push it away into the background of one’s consciousness. This kind of denial can be a problem, however, when a person refuses to acknowledge a physical pain for long periods of time, as the pain may indicate a serious condition that needs medical treatment sooner rather than later.

**The Freudian Stages of Development**

Freud stressed the importance of early childhood experience in the formation and development of later personality, including development of neuroses. Like Piaget (Chapter 4), Freud believed that certain behaviors appear at certain stages according to the child’s readiness, but whereas Piaget was concerned with cognitive development, Freud’s interests were with personality development. And whereas Piaget studied “typical” children Freud studied neurotic adults.

At each stage Freud believed that libido was centered primarily on a particular erogenous (or pleasure) zone, which is noted in the description of each stage below, along with the approximate ages and defining psychological characteristics of that stage.
Rationalization and
The Two Flavors of Grapes

“*The tartness of his face sours grapes.*” –Shakespeare

How do people deal with situations when the outcomes are not to their liking? One strategy is suggested by Aesop’s fable of the fox and the grapes. It seems that a grapevine was just too high to reach. The fox jumped and jumped but simply could not reach the tasty morsels. The animal finally gave up, convincing himself that the grapes must be sour anyway.

The *sour grapes* rationalization, as it is called, is made much worse when the ego is involved. Then perhaps the sorority one didn’t get accepted into as a pledge is seen as a bunch of stuck up juveniles.

Another version is called the *sweet lemon* rationalization. After achieving a long-sought goal, and struggling hard to achieve it, could a person doubt the value of the experience? If one is accepted into that sorority, then those stuck-up so-and-sos virtually define the standard for good times and comradeship. After all, to think less of them would imply a lot of hard work for naught.

In an empirical study of these two “flavors” of rationalization, Aaron Kay, Maria Jimenez, and John Jost (2002) conducted a political survey during the 2000 presidential campaign. With Democrats and Republicans they manipulated the perceived likelihood randomly that one or the other would win, and then measured the respondents’ desirability of each outcome (i.e., Bush wins or Gore wins). In each case preferred candidates were rated as more desirable as their odds of winning seemed greater (sweet lemon), and less desirable as the odds decreased (sour grapes).

Oral Stage (Birth to About Two Years)
At this stage the child’s libido is centered on the mouth and sucking or feeding, from breast or bottle. The child gains not only
nourishment but pleasure from the act of nursing. The child’s oral eroticism extends as well to sucking of the thumb, or even to other objects within reach. As with Piaget, Freud believed that very young infants are unaware of the mother or of others existing independently of the self. He called this state of affairs *primary narcissism*. But later on in the oral stage the baby develops a sense of others, especially the mother, and anxiety develops in the child if the mother is anxious. (This observation was shared by later attachment theorists; see Chapter 13.)

Freud’s work was enhanced by his colleague Karl Abraham (1927) who identified two sub-stages of the oral stage, the *oral erotic* and *oral sadistic* stages. In the earlier erotic stage the child is receptive and totally dependent on the mother for both feeding and comfort. In the later stage, teething occurs, and the child’s biting of the breast is likely to bring on a demand for weaning.

**Oral Fixation.** Fixation at the oral stage occurs, according to Freud, if the infant is either *overindulged* by the mother (the child gets too much attention and coddling) or becomes very *frustrated* (not enough nurturing). Both create problems, but the effects of these two extreme parenting practices produce different results.

Fixation at the early oral stage due to overindulgence results in a passive but optimistic personality. If the child’s every need was met by the mother in early infancy then the adult continues to see the world as a friendly place where needs will continue to be provided for. This type of personality can be described as “happy-go-lucky.”

The great showman P. T. Barnum claimed “there’s a sucker born every minute.” And he should have known, having sold tickets to his sideshow freaks and circus wonders to hapless curiosity seekers. The word *sucker* definitely applies to a person with an oral fixation of this type as the adult person parallels the happy infant, blissfully suckling. But the individual who is instead frustrated at this early stage develops the opposite kind of personality: she or he becomes pessimistic and passive/dependent, expecting that her/his needs from others will not be met. This kind of helpless person is sometimes called (in Yiddish) a *nebbish*, or somebody who thinks “it’s no use” or “what can I do?”
Freudians believe that fixation at the later oral stage ("sadistic") due to frustration can lead to a cynical, hostile personality. But overindulgence will lead to an aggressively striving person.

Most of us have known people who fit the description of these Freudian oral characters. What many psychologists doubt, however, is whether such types are really formed by parental practices, or whether there are other explanations for them. The Freudian explanations of personality development and their ties to parental practices are indeed open to question, as will be seen subsequently.

**Anal Stage (About 2 – 3 Years)**

The anus is the primary focus of libido at the anal stage, which also can be divided into two sub-stages, the earlier *anal sadistic (or anal expulsive)* stage and the later *anal erotic (or anal retentive)* stage. The young child at this stage increases its gross motor abilities by learning to crawl then walk, and also develops its finer motor capabilities, such as learning to grasp and manipulate objects with its hands. The child’s need for increased control and coordination goes along with the need for increased independence. Up until this stage the child has been relatively more passive, its basic needs having been largely satisfied by its mother. But now the child wants to exert him/herself as he/she attempts to master the environment. If the child was happy and content during the oral stage she or he becomes much more volatile and difficult in the “terrible twos.” At this age the child’s desire for mastery (“let me do it”) is often at odds with the parents’ needs to get things done quickly and efficiently. It is important to let the child learn to put on his or her clothes or use a spoon to eat, but it can also take all day. Both parents and child can easily become frustrated with one another, and so family life can become a sort of a battle of wits and wills between parents and children.

**Anal Fixation.** Learning to control bowel movements is obviously part of the child’s desire for mastery. Here Freud believed that toilet or potty training affected the child’s psyche. If parents are either too severe or too lax in their toilet training demands, the child’s personality can be permanently affected. Parents who are too severe
lead the child to become *anally retentive* (controlling), but being too lax leads to *anal expulsiveness* (messiness). These two types of anal characters (retentive and explosive) are evident in Felix and Oscar, Neil Simon’s incompatible roommates in the play *The Odd Couple* (which also became a motion picture then later a television series a number of years ago). Felix is “tightly wound” and extremely fastidious whereas Oscar is “loose” and very disorderly in appearance and in his surroundings.

That such types exist should be obvious. If students walk into a professor’s office for help or advice with schoolwork they will often find one of two extremes. Some offices are just a mess of clutter whereas others are neat as a pin, with books carefully organized on the shelves and the desk looking clean and spare. (Readers can probably also rate themselves on a scale of, say, 1 to 10 of order versus disorder by surveying their own homes and workplaces.) But whether these traits are related to early parental potty training practices or not is controversial.

(I once worked with an office manager who claimed that a cluttered desk was the sign of a cluttered mind. So then, what would an empty desk tell us about an employee’s mind?)

**Phallic Stage (About 3 – 6)**

At this stage of development Freud believed that libido was centered on the penis (or phallus) in both sexes. This is the Oedipal stage that was illustrated in the opening section of this chapter with the case of Little Hans. At this age boys feel that they are in competition with their fathers over their affection for their mothers (and Freud included real sexual longings here, too). And likewise, girls are sexually attracted to their fathers and wish to displace or even do away with their mothers (though in both cases these desires are tempered by equivocation). The boy is threatened by fears of castration because he notices that females do not have a penis, so he imagines that girls have been castrated. He becomes fearful of his father’s wrath. These feelings can be compounded by threats from the parents in response to children’s masturbation (recall the case of Little Hans). On the other hand, the little girl notices that boys have penises but they do not; and as a result (according to Freud), girls develop
penis envy. For reasons not clearly specified, Freud believed that the girl blames her mother for her lack of a penis.

**Resolution of the Oedipus/Elektra Complex.** How do children get by these fears and jealousies? Freud declared that they do so via the dual processes of repression (of these sexual feelings) and identification with the same-sex parent (i.e., boys with father, girls with mother). The process of identification seems to include something like the rationalization that, “if I can’t beat him (or her), I will join him (her).” Note that this is not unlike Anna Freud’s concept of identification with the aggressor (or powerful person, in terms of the child’s perception of the adult). Thus boy becomes an ally of the father and girl of the mother. In a way, then, the boy comes to share his mother with his father, and the girl shares her father with the mother. But the Oedipal (Elektra) feelings don’t go away but are now largely repressed. Through these processes of repression and identification the development of the superego takes place in both sexes. By this Freud meant that the child incorporates the parents’ values as his or her own. The possession of the mother by the boy is now vicarious (and likewise the father by the girl). But getting to this point is not easy; the child is faced with strictures and disapproval and criticism and even punishment before this can occur. And part of this process is learning the ability to censure one’s own desires, thoughts, and feelings. But in resolving the Oedipal/Elektra crises that appear at this age, the child secures the love and acceptance of both of her or his parents.

If the reader wonders why Freud called this the phallic stage as opposed to the phallic/vaginal stage the answer is fairly obvious: Freud saw the penis or lack of a penis to be the crucial element in this psychodrama for both the boy with his castration fears and the girl with her phallic envy. (Perhaps it seems odd that Freud did not see the vagina as simply a different type of structure, which is a physiological marvel in itself, as opposed to a lack of something else: a vulva, after all, is not “nothing.”) But crucial the phallus was in Freud’s thinking because he believed that the boy’s resolution of his oedipal crisis was more complete than the girl’s. That was because the girl had “less to lose” (so to speak) by conforming to the parents’ controls and
authority. The girl fears merely the loss of her mother’s love while the boy fears his father’s wrath and the seemingly terrible physical consequences as well. As a result, he thought that women were always fixated to some extent at the phallic level whereas boys could move on. And to the extent that the female resolution was less complete, so was the woman’s sense of morality: she has, in effect, a weak (or at least weaker) superego. Yet Freud by his own admission did not understand the psychology of women well, as in the statement often attributed to him: “What do woman want?” (Or more exactly, he asked: “What does a woman want?”; Gay, p. 501). Needless to say, Freud’s ideas on women’s development raised the ire of many.

Freud also thought that men sought women who were like their mothers, but if a woman was too much like her, a man could suffer impotence because of unconscious Oedipal guilt. On the other hand, he thought that women with an unresolved complex sometimes became overly competitive, aggressive, and masculine.

The Latency Stage (About 6 years to Puberty)

Freud believed that sexual development entered a period of dormancy in this pre-teenage stage of life. This dormancy, he believed, was due to repression of sexual desires in the typical child by parental restrictions. Sexual desires don’t just disappear, however; rather, they are redirected (sublimated) into socially constructive activities such as school learning, learning social skills, and athletics. Because so much happens developmentally during this period – the interval between childhood and the sexual maturation of the teenage years – the term latency might seem a misnomer: a great deal happens in the child’s development! It may not seem surprising, then, that so many of Freud’s successors (the neo- and post-Freudians) took exception to his insistence on the sexual nature of all human enterprise.

The Genital Stage (Teenage Years)

Because of the physical changes that occur with sexual maturity, libido returns in full force during these years. The adolescent’s concern is once again on the genitals and on sexual activity
Psychoanalysis and the Feminine: Horney Had a Different View

Karen Horney (HORN-eye) was a trained psychoanalysis who was herself analyzed by Karl Abraham. Horney was one of a number of neo-Freudians who de-emphasized the importance of sexuality in childhood and the pervasive influence of the id in psychological development in favor of cultural factors. She left Germany in 1932 for a position at a psychoanalytic institute in Chicago, but moved on shortly thereafter to the New School for Social Research in New York. Eventually she founded her own influential organization, the Association for the Advancement of Psychoanalysis. She found her own voice in writing a number of books on the childhood origins of neurosis. She developed a theory of neurosis due to parental abuse or neglect that led (via repression) to a condition she called basic anxiety.

Horney (1939) believed that men and women in her contemporary society were often in competition, but that this competition was due to social forces to a much greater extent than biological ones. Women of her time often believed they were inferior to men because this is what they were taught, a belief, incidentally, that was shared with Horney by Alfred Adler. Female feelings of inferiority were thus socially based rather than being attributable to a universal, biologically based penis envy. If women strove to be like men and competed with them it was because they were denied male privileges in society. For example, women were seldom allowed into professions like medicine and law. Women’s career choices (if they chose to have careers outside the home at all) were usually limited to occupations such as teaching, nursing, and child care. In short, Horney was both a strong culturist and a feminist. If penis envy did exist in some girls, however, Horney also believed that boys could
sometimes exhibit envy of women’s unique ability to bear children; a condition she described as “womb envy.”

Both boys and girls desire independence from their parents during this period, yet this goal is not yet entirely attainable. Both desire sexual relations with persons of the opposite sex, but societal restrictions prohibit such unions prior to the legal age of consent. This is a difficult period of life in which the teen often feels controlled by hormonally driven sexual desires. Oedipal conflicts once again appear as well as both girls and boys must learn to separate themselves from their same-sex parents and assume adult identities of their own. In some ways this task is never complete – many people have particularly strong parental dependencies that continue well into adulthood – and overcoming these dependencies in many cases involves psychotherapy.

Anna Freud on Adolescent Coping

Many psychologists agree with Freud that adolescence is a time of “storm and strife” that fairly erupts following the quiescence of the pre-adolescent stage (Freud’s latency period) which precedes it. Freud’s daughter, Anna Freud, was one of the first to write extensively on this period and on the ways in which teens learn to cope with the struggles caused by their budding sexuality and desires to achieve independence. Some of the coping strategies she identified (A. Freud, 1958) were:

- **Escape from/disdain for parents:** Sometimes escape literally means running away from home, but more often it takes the form of avoiding one’s parents as much as possible. This is due (in Freudian terms) to oedipal feelings, or (in other terms) the simple desires for independence coupled with a feeling that associating with one’s parents is terribly embarrassing, especially in the presence of one’s peers. Sometimes teens shut themselves up in their rooms while at home, adopting what Anna Freud termed “a
border attitude” (or “pardon me, it seems I must live here, but I don’t have to put up with my parents while doing so”). If an attitude of disdain or even contempt is noticeable this merely reflects a desire to be one’s own, independent person; hence the attitude is one of self-distancing.

- **Asceticism:** This is the denial (that oft-used defense mechanism) of desire. A teen may turn instead to physical fitness, dieting, vegetarianism, religious philosophies, or other means of becoming “pure” while denying sexual feelings.

- **Intellectualism:** This is a kind of sublimation (and once again a defense mechanism) in which sexual feelings are turned into abstractions. Such ideas often have to do with the nature of love and relationships. Crain (2005, p. 263, citing A. Freud, 1936) notes that “While such theories may be brilliant and original, they are also thinly disguised efforts to grapple with oedipal issues on a purely intellectual level.”

---

**Evaluating Freud and Psychoanalysis**

**Freud’s Influence on the Field of Psychology**

*Psychodynamic Approaches to Therapy.* Freud’s lasting contributions include his many ideas about psychotherapy and the therapeutic process, such as transference and resistance, countertransference, and insight. These are all phenomena that tend to occur in psychotherapy. But many newer forms of therapy (see, for example, the methods of Carl Rogers in Chapter 16) stress the client’s current state of mind, personal adjustment problems, thoughts and feelings, or perhaps address specific problem behaviors, usually without focusing on one’s childhood traumas and on the identification of unconscious processes. Freud should be remembered as perhaps the greatest influence in the study of unconscious feelings and motives, even if he was not the first to undertake such studies. But without Freud there might never have been any form of relational
psychotherapy, or what Breuer called “talking therapy.” Though Breuer was the originator of that concept he failed to fully develop the method; it took Freud’s special genius to shape Breuer’s discovery into an effective form of therapy.

**The Dynamics of Development.** Today the psychodynamic approach to development includes an emphasis on the importance of early childhood experience on individual development and, to at least some extent, the role of unconscious motives and feelings in personality and neurosis. But in contrast to Freud, most contemporary psychodynamic therapists place little or no importance on childhood sexuality. Although few psychologists today agree with Freud’s emphasis on the sexual nature of the developmental stages of personality, most still credit him for his many useful observations about the developing child during these periods of life. For most, the Oedipus complex is simply not a realistic way of viewing the path of children’s development, even though many of Freud’s observations still seem to hold regarding children’s ambivalent feelings about their parents, sibling rivalry, identification with same-sex parents, “puppy love” for the opposite sex parent, and the like. Freud’s recognition that a child (or adult) can experience an entire range of emotions toward the same person – from love to anger to hostility – also defied the conventional wisdom of his time. Of course different explanations can be given for the dynamics of the so-called phallic stage of development (e.g., role identification theory per Chapter 11), and the universality of ideas like castration fears and penis envy is no longer assumed, although these phenomena may have been widespread during Freud’s own era for the reasons discussed earlier.

In defense of Freud’s Oedipal views, Kaufmann (1980/1992) states that merely finding counterexamples (e.g., per the cross-cultural studies of Malinowski, discussed below, or children reared in single family environments) is not enough to invalidate a psychological theory, which might still be true in many or most cases. Kaufmann further states that “The Oedipus complex is often misunderstood as if Freud had suggested that boys at about the age of four desired to have intercourse with their mothers. In fact, he said explicitly that children at that age have no clear understanding of sexual intercourse….What
they want, according to Freud, is sole possession of their mothers, while they experience their fathers as rivals” (p. 113). Kaufmann himself recalled a personal incident when at approximately this age he said “If Daddy goes to prison, I’ll marry Mommy” (p. 113) which he saw as a typical childhood fantasy.

One might refer to the following example as “Elektra-Lite”: developmental psychologist Kathleen Stassen Berger (2001) states that “As a woman, and a mother of four daughters, I have always regarded Freud’s theory of sexual development as ridiculous, not to mention antifemale” (p. 291). But she admits that her view of Freud became modified after not one, but all four of her daughters (at different times) made statements like “When I’m grown up I’m going to marry Daddy” (p. 291). When Berger replied “But Daddy’s married to me” little Bethany replied “That’s all right. When I grow up, you’ll probably be dead” (p. 291). Another daughter, Elissa, sent her father a “cute,” illustrated valentine card which read: “To Pop – Dump Mom and have me – I love you” (p. 291). Berger concludes: “I still think [Freud] was wrong on many counts. But Freud’s description of the phallic stage now seems less bizarre than it once appeared to be” (p. 291).

Perhaps all of these anecdotes will bring to mind once again that old punchline: “Oedipus-shmoedipus – as long as you love your mother!”

**Neo- and Post-Freudians.** Erik Erikson (next chapter), while not overtly rejecting Freud’s ideas, expanded them considerably by placing more emphasis on the social nature of personal development and elaborating on the kinds of developmental challenges that are presented to each individual during these stages; Erikson also identified stages of personality development that extended throughout the entire life span and not just through adolescence.

Freud lost some of his early followers – for example, Jung, Adler, and Steckel – because they had trouble accepting his pervasive emphasis on the sexual basis of development. Adler and Jung formed their own schools of psychology, but the Freudian influence on these is unmistakable. Many neo-Freudians were known as *ego psychologists*. They accepted some but not all of Freud’s ideas. As
with Jung and Adler, they rejected Freud’s strong emphasis on infantile sexuality, but stressed instead the importance of social relations on the developmental stages. Among these were Karen Horney, Harry Stack Sullivan, Erik Fromm, and Heinz Hartmann. These psychologists downplayed the importance of the id and stressed instead the role of the ego in personality development. Unlike Freud who, it may be recalled, saw the ego as a component of personality that grew out of the id and acted in its service, these later psychodynamic theorists viewed the ego as more autonomous.

Freud’s strongest influence today can be seen in what is known as object relations theory and in attachment theory. Drew Westen and Glenn Gabbard (1999, p. 63) state that “…object relations theory stresses the impact of actual deprivation in infancy and early childhood, the importance of self-representations and representations of others (called “object representations”) in mediating interpersonal functions, and the primary need for human relatedness that begins in infancy.” This definition covers a lot of ground – it includes the importance of social relations, especially early ones (per the ego psychologists), and emphasizes the attachment bonds between child and caregivers. Object relations theorists are also very concerned with development of self-concept (self-representations) and the cognitive processes inherent in forming one’s view of others – and even one’s world view. Melanie Klein was a pioneering figure in the formulation of early object relations theory; Margaret Mahler became known as a leading figure later on.

The attachment theorists also place importance on early childhood social experience, the attachment bond between mother and child, and the role of separation anxiety on development. These theorists, which include John Bowlby and Mary Ainsworth (see Chapter 13) were also very strongly influenced by ethologists (scientists who study animal behavior in the natural environment) in addition to psychoanalytic influences.

**Role of Defense Mechanisms.** The defense mechanisms of the ego identified by Freud are still recognized as important ideas, but today psychologists do not see them in quite the same light as did Freud. Freud believed that defense mechanisms were responses to
anxiety and that they were largely repression and displacement of sexual and aggressive tendencies. Instead most psychologists now think of these as methods of protecting or enhancing one’s self-esteem (e.g., Baumeister, Dale, & Sommer, 1998), although anxiety is still a motivating factor, or more specifically the threat of loss of esteem.

The Unconscious Mind in Psychology Today

Freud viewed the unconscious mind using the analogy of a submerged iceberg representing a vast store of feelings and motives that were sexual and aggressive in nature, a “seething cauldron” of emotion, all of which lies beyond conscious awareness. In one sense it is difficult to disprove such an assertion, for how can one carefully study that which is unseen, and only shows itself indirectly through one’s dreams? But consider once again the times in which Freud lived as compared to today. People today are probably much more self-aware or one might even say “psych-aware,” due in no small portion to Freud’s own influence. Could it be that psychology courses and self-help books have put people more in touch with themselves and people simply have a better grasp of who they are or today? Also contemporary society is less “repressive” (actually suppressive) of sexuality – it seems as if no subject is any longer taboo.

Cognitive neuroscientists view the unconscious in a different light than did Freud. They emphasize not the dark continent of repressed desires that Freud addressed. The unconscious mind is not even close to being such an autonomously functioning force that drives behavior which is motivated by repressed desires. Rather, the role of the unconscious can be seen as facilitating many “automatic” processes that are beyond our awareness. These processes are not conscious simply because they do not demand our undivided attention. The unconscious as seen from the perspective of modern cognitive neuroscience is discussed more fully in Hassin, Uleman, & Bargh (2004). Kihlstrom (1999, p. 437) who conclude their chapter on research on the psychological unconscious with the following summary: “This body of research has revealed a view of nonconscious mental life that is… kinder, gentler, and more rational – from the seething unconscious of Freud.” In Kramer’s (2006) harsher
view, “Our understanding of the unconscious is about where it was before Freud began to write” (2006, p. 208, emphasis added).

**Freud’s Method of Clinical Observation**

Freud utilized one primary research method, which is that of clinical observation or the case study in formulating his theories. These observations came mostly from his interactions with his patients. The strength of this method is its ability to discover new insights about behavior, but a crucial weakness is that one can all too easily fall prey to the **confirmation bias** in which one tends to see only things that confirm one’s existing theoretical ideas. In this sense it might be helpful to compare Freud to Piaget. Piaget’s major bias seems to have been his notion that a child is a “little logician.” He was interested in cognitive development and wished to see how children’s cognitive processes worked through observation of their behavior. In the small scale experiments he did he presented children with certain challenges, but otherwise did not try to influence their actions or responses. On the other hand, Freud came to the consulting room with many pre-existing ideas about the influence of sexual and aggressive motives. Think of the case of Little Hans, for example, and how the child’s behaviors nicely fit into Freud’s ideas about the Oedipus complex. Under such conditions it may be all too easy to find confirmation of one’s biases. But a telling criticism is given by Kramer (2006), who unearthed the little known fact that **Hans had in fact witnessed an incident in which a horse fell down in a carriage accident**.

To what extent can Freud’s observations be generalized to other individuals in other times and other places? Erik Erikson found that early toilet training (in the anal stage of development) is far from a universal practice. Other anthropological (Malinowski, 1927) studies also show that the conditions deemed necessary by Freud for the Oedipus complex do not occur in all culture, due to the absence of the nuclear family as known in Western culture.

Drawing conclusions about human behavior based on the presumed latent content of their dreams and interpretations of free associations is at best a very difficult task, which is also tied to problems of measurement and the reliability of the measures. The fact
is that different psychologists evaluating or diagnosing the same individuals can reach radically different conclusions when objective criteria are not available (Meehl, 1954), and there simply were no objective tests for diagnosis in Freud’s time. Even today it is extremely difficult to make diagnoses based on presumed unconscious tendencies that are just not directly observable. Projective tests that were designed to do so, such as the Rorschach and the Thematic Apperception Test are really quite unreliable (refer to the evaluation of these tests in Chapter 14). Not only did Freud lack such tests when he was formulating his ideas but no measuring instruments for assessing the contents of the unconscious – objective or otherwise – existed at the time in which he formulated his basic theory.

Peter Kramer, one of the most recognized names in American psychiatry today and a man who received training in classical psychoanalysis, today takes a very critical view of Freud as a scientist as well as a practitioner. He argued that “[Freud] had altered fact to fit theory, conducted therapies in ways that bore scant relationships to his precepts, and claimed success in treatments that had failed” (2006, p. 2).

**Further Critiques of Freudian Psychoanalytic Theory**

*Is Psychoanalytic Theory Scientific?* Critics claim that Freud’s theory can be stretched too far, so as to explain almost any outcome. For example, suppose it is assumed that a child’s parents were too severe with toilet training. The outcome can be a person who is overly controlled, like the “Felix” character in Simon’s *The Odd Couple*. But on the other hand, if the child strongly rebels against this training, he could become like the “Oscar” character who is impossibly disorganized. But parents with more than one child often realize that two children can be remarkably different – a little Felix *and* an Oscar can sometimes appear in the same family environment, given essentially no difference in parenting practices. In any case the fact that siblings – even fraternal twins – can sometimes be so different suggests that other explanations (most notably genetic inheritance) might at least in part account for such differences.
Unfortunately psychoanalytic theory tries to explain so much of human behavior that it over-reaches its goal. Much of it is descriptive, based on a limited number of case studies, and it is difficult to put the theory to the test of scientific scrutiny. The philosopher Karl Popper (1959) stated that good theories in science must be falsifiable, at least in principle. In other words, there must be some way to be able to disconfirm a scientific hypothesis if, in fact, it is untrue. Popper (1963) did not believe that psychoanalysis was a science at all, for if opposite outcomes can both be seen as confirmation (as in the case of the anal character, above), where is the falsifiability?

Although Freud came from a respectable scientific tradition in medicine and neurology, he himself questioned whether psychoanalysis was truly a science. Indeed, Kaufmann (1980/1992) goes so far as to call Freud’s psychoanalysis “poetic science.” But perhaps one problem is that psychology in general and psychoanalysis in particular in those early days were so different from the physical sciences. Freud believed that science begins with description (as in the case studies of psychoanalysis), and proceeds from that point. Granting that this is so then Freud made a truly remarkable beginning.

But not all of Freud’s ideas are untestable. For example, Weston & Gabbard (1999) cites research conducted in the 1940s and 1950s by the “New Look” psychologists who studied perception, discovering that what is seen and reported is affected by one’s defenses and motives, suggesting that we see the world to a great extent as we are, rather than as it is. Much of this early work, according to Weston, has been forgotten (probably because it didn’t fit in with the behavioristic influence that was so strong in American psychology at the time). In other words, New Look psychologists argued that unconscious motives and feelings can and do influence our perceptions. In a tradition at least as old as the experimental work of Frederick C. Bartlett (1932), cognitive psychologists have argued that memory is a reconstructive activity – people do not recall complex events as they were so much as they reconstruct the past in line with present perceptions without conscious awareness that they are doing so. Other findings in support of the existence or workings of unconscious processes are also discussed by Weston.
Lack of Universality of Developmental Phenomena. Clearly the Oedipus complex is not observed in all cultures, as anthropological evidence suggests. For example, Malinowski (1927) documented family life in Trobriand Islanders in which children do not live exclusively with father and mother but are, rather, wards of an extended family constellation. But the Oedipus complex may even be less general than Freud thought. Castration anxiety and penis envy may be strictly a product of the cultural practices of Freud’s own time and place, where threats issued in response to masturbatory practices were common (leading to castration anxieties) and women’s diminished power in Victorian society was probably the real force behind so-called penis envy (vide Horney and Adler). It is probably true that many little girls develop fantasies of marrying their fathers, and that a parallel situation exists in the case of little boys. Ambivalent feelings toward both parents and sibling rivalry are also common, as Freud noted. But the mini-drama that he so carefully described in the case of Little Hans does not seem to hold for all children. Remember, too, that Freud based his ideas on a very small number of case studies; that his psychoanalytic patients were generally considered neurotic and therefore not typical of the average person; and finally that many of his ideas— including that of the Oedipus complex— were based partly on his self-analysis.

As for child rearing practices generally, children in Freud’s day were probably more likely to have endured strict toilet training practices than are typical of today’s families. Also, as previously mentioned, Erikson found that some cultures do not enforce strict toilet training practices. Lakota children, for instance, learn such habits on their own, through observation of adults.

Gender Bias. Freud clearly failed to adequately address the psychology of women, as Horney and many others (e.g., Chodorow, 1978; Gilligan, 1982; Thomson, 1943) have also noted. In stating that the resolution of the Elektra complex in girls was incomplete in terms of superego development, Freud was no feminist! Yet Freud himself did not discriminate against women in his own field, as many intelligent and talented women, including Freud’s own daughter
Anna, became accepted members of the psychoanalytic community as practitioners.

Freud also believed that there were two types of female orgasm, one that is induced by the external stimulation of the clitoris and another that is induced by stimulation of the vagina by the penis during intercourse. Immature women with an incomplete resolution of the Elektra complex, Freud believed, preferred the former whereas mature, well-adjusted women preferred the latter, which was also thought to be more intensely satisfying. The psychological implications of Freud’s ideas about orgasm are obvious: once again the presence of a penis (and the necessity of a man) is required for greatest sexual and emotional satisfaction in women. Alas for Freud, later physiological research strongly suggests that there is only one kind of female orgasm, which may be induced by either external or internal means (Masters & Johnson, 1966). Emotional satisfaction depends more on a woman’s state of mind than on the specific method of inducing orgasm.

A Final Word on Freud

Freud clearly had his detractors in his own day, and today many of his ideas, particularly concerning the Oedipus/Elektra complex, the almost exclusively sexual nature of human development, the primacy of the id over the ego, and the extensiveness of people’s unconscious awareness, have all been questioned and in many cases, abandoned. Further, many (though by no means all) of his theoretical ideas seem to be incapable of being empirically tested through the research process. Why, then should Freud be considered a great name among psychologists, if so many of his ideas have been rejected or have waned in their influence?

To adequately address this question several points should be considered. To begin with, Freud achieved a major personal goal in taking the taboo out of the open discussion of sex. Freud also popularized in psychology a new way of dealing with psychological disorders – his psychoanalytic “talking therapy.” Although the number of practicing therapists who literally follow all of Freud’s original ideas and procedures for psychoanalysis is extremely small, his basic format for therapy sessions is still employed by many
practitioners, though in modified form. And even though most people reject the literal interpretation of Oedipal dynamics, Freud focused an interest on family dynamics in an innovative way, introducing concepts that still have validity, such as sibling rivalry and feelings of ambivalence toward family members. Further, if erogenous zones and the so-called libidinal cathexis to them are disregarded, his observations on stages and problems of development were still original and many people regard them as at least descriptively valid (cf., Erikson’s theory in the following chapter, or Freud’s influence on the attachment theorists per Chapter 13). Also, most of his defense mechanisms of the ego retain a kind of validity of their own when taken out of the classic psychoanalytic context. Finally, Freud must be remembered as a very original thinker and gifted writer whose works are readily accessible to lay persons as well as to professional psychologists – one needs no advanced degree to study them.

****
For Thought or Discussion

1. Think back to your very early childhood. (Some people can do this, others cannot. If you are in the latter category don’t worry that you may have repressed your memories. Often people simply forget!) If you can, try to remember the first time that you became aware of the anatomical differences between boys and girls or between men and women. What were your thoughts or reactions? Did they confirm or disconfirm Freud’s ideas about castration fears or penis envy?

2. To continue the above exercise, can you recall ever being jealous of your same-sex parent over the affection of your opposite-sex parent in your childhood? Or, if you have children of your own, did they ever say anything that would reveal such jealousy?

3. Finally, can you think of any examples of cases of sibling rivalry in your family involving yourself, or your own children?

4. Does Freud’s explanation of the symbolism (horse representing father; muzzle as father’s glasses) seem reasonable as an explanation of the phobia he observed in Little Hans?

5. As was seen, Freud had a rather pessimistic view of human nature. Do you agree with him, or would you align yourself with more optimistic philosophies, such as those of Rousseau or perhaps Piaget? More broadly, what is your own view of human nature?

6. Which defense mechanisms characterize the following situations:
   a. An unscrupulous businessman incorrectly believes his accountant is trying to cheat him.
   b. A child reverts to bed wetting following the birth of a younger sibling.
   c. In a famous advertisement from many years ago, a man becomes a body builder after a powerful man kicks sand in his face at the beach.
   d. Due to extreme fatigue and stress, a soldier develops amnesia and for a time cannot recall his recent events in combat.
   e. A young man has a frustrating argument with a female friend. When his mother tries to sympathize he yells at her for interfering.
   f. Prisoners in a hostage situation who are treated badly begin to adopt the attitudes of their captors.
g. A woman sets a new swimming time record in crossing Lake Erie. She experienced extreme abdominal pain but mentally blocked it out and continued.

h. A teenage boy develops strong physical feelings for a girl of the same age. He tells her (and also convinces himself) that what appeals to him most about her is her intellect.

i. A woman asks a man to attend a weekend event with her. He coldly refuses, so she calls her second choice, who accepts her invitation. She confides in a friend that the first man was not as likeable or physically attractive as the second, who is, after all, the man desired by most of the women she knows.

j. A small girl keeps telling her mother how much she just loves her new little sister.

k. An older, unmarried woman is critical of most of her friends. She thinks that they are always obsessed with sex.

l. A child who loved to throw eggs at people’s windows on Halloween becomes a “spatter” painter as an adult, in the style of the artist Jackson Pollack.

7. Describe someone you know who is very “anal” (neat and compulsive). Describe someone else you know who is quite the opposite. Are you, yourself, excessively neat or, at the other extreme, messy and unorganized?

8. Despite the many criticisms of Freud in this regard do you think it may be true that, in some sense, children have a sexual nature? If so, what can be said about such sexuality?

9. What do you make of the quote by Freud at the very beginning of this chapter in contrast to the following one by Peter Gay? What does it reveal to you about his personality and character, in light of the other information given about him in this chapter?

****
Notes

3. Whether or not Freud actually said this is, unfortunately, unclear. (Perhaps if he did not, he should have!)
4. This account is taken mainly from Gay (1988).
5. Jung appears to have thought of Freud as a father figure, and was himself greatly disappointed at Freud’s rejection of his own ideas—so much so that he went into a deep depression which was due to a significant degree to their falling out (Jung, 1961; also see Chapter 15).
6. Time and again in the history of psychology (or indeed, in other fields) it seems that prejudice in the form of anti-Semitism militated against the acceptance of the ideas of some very notable thinkers. As was already seen (chapter 5), this was true of Vygotsky in Russia. An eminent American psychologist, Harry Harlow, even changed his name (it was Harry Israel) because he believed it would keep him from achieving success in academe—and he was not, in fact, even Jewish!
7. The fact that Nietzsche regarded himself as a psychologist (“Who among philosophers was a psychologist before me…?” Nietzsche, as translated by Kaufmann, 1980/1992, p. 15) has often been overlooked by historians of psychology. Nietzsche also believed that psychology should be recognized as “the queen of sciences” (Kaufmann, 1980/1992, p. 79). Also see Ellenberger (1970) on pre-Freudian notions of the unconscious mind.
8. Freud claimed that the break with Breuer was over the latter’s refusal to recognize the sexual origins of hysteria. Demorest (2005) notes, however, that Breuer did in fact acknowledge that repressed sexual feelings underlay many cases, just not all of them.
9. The list has grown over the years; see, for example, 101 Defenses: How the Mind Shields Itself, by Jerome S. Blackman (2003).
9. Erikson’s Psychosocial Developmental Stages

I came to psychology from art, which may explain, if not justify, the fact that at times the reader will find me painting contexts and backgrounds where he would rather have me point to facts and concepts. I have had to make a virtue out of a constitutional necessity by basing what I have to say on representative description rather than on theoretical argument.

–Erik Erikson

I have nothing to offer except a way of looking at things.

–Erik Erikson

Erikson and Personal Identity: A Biographical Profile

Understanding Erik Erikson’s own story of personal development facilitates and illuminates an understanding of the development of his psychology. And it was a remarkably individualistic life that he led. Erikson was an illegitimate child, born near Frankfurt, Germany in 1902, of a secret romance between his Jewish mother and an unknown Danish man. His mother married when he was three years old, but Erikson took after his biological father in appearance. His blond, Nordic appearance made him stand out among his young Jewish friends. In Germany and other parts of Europe at the turn of the century, anti-Semitic attitudes were quite pronounced (as was seen with Freud), and Erikson must have felt that he failed to fit in with either the majority culture or the Jewish minority. Because of these unusual circumstances, he had an obvious “identity problem,” which surely influenced not only his unconventional lifestyle, but also his ideas about the crises that each person encounters at each stage of his or her life.

As a young man Erikson became a wanderer – almost a nomad – as he traveled through Europe. He also became an artist, and unsurprisingly given his independent nature, was largely self-trained. Erikson lived a bohemian lifestyle during these years, rebellious, but also confused (Freidman, 1999). But he began teaching art to the
children of Americans who came to Vienna to study psychoanalysis with Freud and his circle, specializing in children’s portraiture. He also became a Montessori instructor. It was at this time that he began studying psychoanalysis with Anna Freud, as well as being analyzed by her. Through his studies and associations with the psychoanalytic community he became one of the few psychoanalysts who practiced and was certified without a medical degree, specializing in child psychiatry.

In 1933 Erikson, now married to Joan Mowat Erikson (née Serson), migrated to America to escape European fascism. Joan Erikson became Erik’s editor and research collaborator; they had four children and remained married for 64 years, until his death in 1994 at age 81.

Erikson’s real surname was Homberger, after his physician stepfather, but he changed it legally to Erik Homberger Erikson in 1939. Although he gave no formal reason for this change, some have suggested that this name symbolized a personal transformation, that he literally created himself, or gave himself his own identity, as “Erik’s son,” suggesting that he was the “son of himself.” Erikson taught at several prominent universities and institutes, including Yale, Berkeley, the Menninger Foundation, Mount Zion Hospital in San Francisco, and Harvard. More than once his socio-political views caused him to move on from one place to another. He left Yale for Berkeley because of the anti-Semitic attitudes he encountered there. Later he left Berkeley for the Austen Riggs treatment center in Boston because he objected to signing loyalty oaths – this was during the McCarthy era – even though he was not himself a Communist, it was a matter of principle for him.

In addition to psychology, Erikson was also very interested in cultural anthropology, and he lived for a time among the Lakota Sioux in South Dakota and the Yurok tribe in California. He wrote on a wide variety of psychological and cultural themes, including combat stress in Veterans (his term identity crisis came from research on war veterans[^3]), cross-cultural child rearing practices, the dangers of nuclear war, racial tensions (he conducted lengthy conversations with social activist and Black Panther leader Huey Newton; Erikson, 1973), and juvenile delinquency. Among his books are Childhood and
Erikson’s Psychosocial Emphasis

Erikson extended Freud’s work by describing stages of development to include all of the human lifespan, from infancy through old age. Freud had little to say about stages beyond his genital stage (adolescence), although Erikson quotes him as stating that the important tasks of adulthood are “to love and to work” (Erikson, 1950/1985, p. 265). By contrast, Erikson’s stages of young adulthood, and the middle and later years, are well developed and offer many insights into the kinds of tasks presented to each of us by life itself as people mature and grow older.

As with many other psychologists whose work is based in the psychoanalytic tradition following Freud, Erikson can be called an ego psychologist because he thought of the ego as something more than a check on the demands of the id and a moderator between id and superego. Rather, the ego has a life of its own. Although partly conscious and partly unconscious, the ego more clearly represents the total personality than does the id. Also, along with other ego psychologists, Erikson stressed the importance of social interactions in development, as opposed to Freud’s emphasis on development as a psychosexual process. The role of sex was indeed downplayed by Erikson, as it was by most post- or neo-Freudians in the psychodynamic tradition (including Jung, Adler, Horney, and Sullivan). Although he did not overtly deny psychosexual phenomena such as oral fixation and Oedipus complex, Erikson not only downplayed the role of sex but also even the unconscious mind, focusing more on interpersonal, social, and cultural influences.
The Stages of Development

Erikson saw that each stage of development presents its own unique challenges, which he called crises. Erikson believed that these crises of the ego presented challenges to one’s individual identity. Successful development of the personality (or psychosocial development) depends on meeting and overcoming these tasks or crises. As can be seen from Table 9.1 (based on Erikson, 1950/1985), Erikson’s stages up until young adulthood parallel Freudian stages, and include Freudian concepts, but also greatly expand on them.

For Erikson, development proceeds according to the epigenetic principle. This term was originally used in embryology to denote physiological development as a kind of natural unfolding of the developing embryo into a fetus, then a child. If something disturbs the development of the embryo (an arm, for example) at the critical time in which that limb must develop, then the arm will never develop properly.

The counterpart to the limb in psychosocial development is some aspect of the personality, such as the sense of basic trust in his first stage. As with Freud, Erikson believed that successful development at each stage was requisite for successful development at later stages. The analogy with biology breaks down somewhat, however, as Erikson was a great optimist: he believed that one could, through psychoanalysis (for example), deal with and resolve earlier conflicts later in life, although this was not an easy task.

At each stage the developing child or adult is confronted with a conflict of opposing forces – basic trust versus mistrust in the first stage is an example. The child must experience both aspects of these conflicts; he or she must experience both trust and mistrust in order to come to a proper resolution. The child who trusts too much (is overindulged) becomes passive and dependent, whereas the child who mistrusts becomes cynical.

Notice in Table 9.1 that, in comparing Freud’s psychosexual stages with Erikson’s, the latter expands the scope of the so-called erogenous zones. For example, in Erikson’s first stage of Basic Trust Versus Basic Mistrust the oral zone is expanded to also include respiratory, sensory, and kinesthetic functions. In general, the trend
with Erikson is not to see these so much as zones of libidinal cathexis, but more simply as just parts of human physiological functioning that are especially important in the developing person at that stage. The brief descriptions of the stages in Table 9.1 also stress the social aspects of development over sexual aspects.

For each stage, Erikson specified a **basic strength** that arises from successful resolution of the identity crisis that the developing person faced at that stage. For Erikson, psychological growth is indeed growth of the ego. The opposite of a basic strength is called **core pathology**.

Table 9.2 summarizes these as well as the sphere of social interactions that characterizes each stage.

It can be argued Crane (2005) that Erikson’s theory qualifies as a stage theory in the same way that Piaget’s or Kohlberg’s theories do because once again the stages refer to qualitatively different behavior patterns; they concern general issues; they unfold in an invariant sequence; and they are thought to be culturally universal. This may work as a generality, but one must also consider that life’s difficulties, such as divorce or loss of a job or loved one, can set a person back (regression).

**First Stage: Basic Trust versus Basic Mistrust**  
**(Psychosexual Mode is Oral, Respiratory, Sensory, Kinesthetic)**

The crisis the child faces at the first stage concerns basic trust versus basic mistrust. The basic strength of the first stage is **hope**, or the expectation that difficulties in life, presenting whatever challenges they may, will eventually result in a positive outcome. This sense of hope is, in turn, needed to meet the challenges presented at later stages of development. The antithesis of hope is a lack of hope and **withdrawal**.
The successful adoption of self-regulation depends on a complex interplay of factors, including:

1. **Understanding of Self-Regulation (Consciousness of one's own thoughts and feelings)**
2. **Developmental Readiness (Physical and cognitive maturity)**
3. **Environmental Support (Parental and peer influence)**
4. **Previous Experiences (Early positive experiences)**

Successful self-regulation requires a combination of these factors, which are interrelated and interact with each other. The development of self-regulation is a lifelong process that begins in infancy and continues through childhood and adolescence.

---

**Table 4.1 Comparison of Freudian Stages of Development**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infancy</td>
<td>Impulses and drives are directed towards the mouth, with pleasure associated with oral gratification.</td>
</tr>
<tr>
<td>Toddlerhood</td>
<td>Focus shifts to the genital area, with the development of sexual interests.</td>
</tr>
<tr>
<td>Early Childhood</td>
<td>Development of the oedipus complex, which involves the struggle for dominance and submission.</td>
</tr>
<tr>
<td>Latency Stage</td>
<td>A period of stability and preparation for the genital stage.</td>
</tr>
<tr>
<td>Adolescence</td>
<td>The genital stage is fully developed, and individuals are ready to explore and express their adult sexuality.</td>
</tr>
</tbody>
</table>

---

**Figure 4.2 Freud's Psychosexual Stages of Development**

- **Infancy**: Pleasure from oral activities (e.g., sucking) leads to increased self-awareness and control.
- **Toddlerhood**: Development of the anal stage, focusing on control and delay.
- **Middle Childhood**: The phallic stage, where children explore their sexuality and develop a sense of identity.
- **Adolescence**: The genital stage, characterized by the development of mature sexuality and relationships.
Table 9.2 Basic Strengths, Core Weaknesses, and Spheres of Social Interactions for Erikson’s Stages

<table>
<thead>
<tr>
<th>Stage</th>
<th>Basic Strength</th>
<th>Core Weakness</th>
<th>Sphere of Social Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Trust vs. Mistrust</td>
<td>Hope</td>
<td>Withdrawal</td>
<td>Mother or surrogate</td>
</tr>
<tr>
<td>Autonomy vs. Shame and Doubt</td>
<td>Will</td>
<td>Compulsion</td>
<td>parents</td>
</tr>
<tr>
<td>Initiative vs. Guilt</td>
<td>Purpose</td>
<td>Inhibition</td>
<td>Family</td>
</tr>
<tr>
<td>Industry vs. Inferiority</td>
<td>Competence</td>
<td>Inertia</td>
<td>School, Neighborhood</td>
</tr>
<tr>
<td>Identity vs. Role Confusion</td>
<td>Fidelity</td>
<td>Repudiation</td>
<td>Peers</td>
</tr>
<tr>
<td>Intimacy vs. Isolation</td>
<td>Love</td>
<td>Exclusivity</td>
<td>Partners (sex, friendship, cooperation, competition)</td>
</tr>
<tr>
<td>Generativity vs. Stagnation</td>
<td>Care</td>
<td>Rejection</td>
<td>Divided labor and shared household</td>
</tr>
<tr>
<td>Integrity vs. Despair</td>
<td>Wisdom</td>
<td>Disdain</td>
<td>“Mankind” or “My Kind”</td>
</tr>
</tbody>
</table>
The crucial social interactions are with the mother or mother surrogate. What must be emphasized is that, through these interactions, the child learns both trust and mistrust, but in the right proportion: a healthy sense of mistrust is also necessary for successful dealings with others in social relations. As with Freud, Erikson recognized that problems will develop not only if the infant’s basic needs are neglected, but also if it is overindulged. With Erikson, however, the child’s needs are not merely oral, and are not primarily sexual. In addition to experiencing pleasure from breast or bottle, the child needs physical contact and consistency in attention. The child’s sense of trust grows along with the development of the ego: it senses that its needs will be met in an orderly fashion while also learning the importance of delay of gratification. An important example of ego development and trust building is when the child learns to accept its mother’s absence without undo anxiety. Later theorists, picking up on Freud and Erikson, stressed the importance of successful attachment bonding between mother and child (Chapter 13).

The child must not only learn to trust in its mother but also to trust in itself. This comes with learning of self-regulation, as when the child acclimatizes to teething and learns to suckle at the breast more gently.

Erikson believed that the mother or mother figure plays an important part in the child’s development of trust, not only by meeting the child’s basic comfort and nurturance needs, but by having confidence in herself. He believed that an anxious mother transmitted this anxiety to the child, which he saw as unhealthy: a mother’s tension causes a corresponding state of tension in her baby, resulting in a feeling of insecurity and lack of trust.

Second Stage: Autonomy versus Shame and Doubt (Psychosexual Mode is Anal, Urethral, and Muscular)

That the toddler struggles to gain a sense of autonomy or control of bodily functions, large, and small motor skills, should be quite obvious to the parents of such children. Walking, talking, and later
dressing and feeding oneself, as well as learning to control bowel functions, are all tasks that the child learns during this stage. And increasingly, she or he wants to do these things without adult help. But adults realize that the child is not always capable of doing these things herself, and patience with letting her have her own way can wear thin. The child, in turn, seems at times to be at war with her parents. She wants to do things on her own, yet can’t – a very frustrating situation all around! The child often feels ashamed of his or her lack of control when, for example, sitting on a potty trying to control urinary or bowel functions. The parent also risks increasing the child’s shame, either unintentionally (by a lack of patience, for instance) or intentionally (by exhibiting anger or ridicule). Shame and doubt are the natural opposites of childhood autonomy.

How is a parent to handle such conflicts? There are, unfortunately, no easy answers to the dilemma of the willfulness seen in the “terrible twos.” Will is indeed the basic strength of this stage, compulsion the negative core weakness. The parents must be patient with the child, but not to the point of sainthood. Parents must establish – and children desperately need – rules or standards of proper behavior. The child must learn the meaning of the word “no.” But often the willful child learns this only too well – she frequently defies parental requests using this same word. Here Erikson, like Kohlberg (Chapter 7), stresses the learning of “law and order.” But parents who over control their children risk increased shame and lack of a sense of autonomy: such over controlling behavior can break the child’s will and (Erikson believed) lead to the kinds of “anal” neuroses (extreme compulsiveness or messiness) described by Freud.

Erikson also noted that different cultures have different standards of parental expectations for children’s behavior. The Lakota Sioux, for instance, do not try to force children to learn how to control their toilet behavior; instead, children learn naturally in time through imitation. By contrast, the standards for children in the United States today may seem much more restrictive; Erikson (even back in his time) thought that our society was very restrictive and “sanitized.”

In recapping, Erikson expanded Freud’s ideas about the so-called anal stage in several ways. First, he expanded the notion of the child’s need for control or autonomy beyond just toilet training, to a number
of physical challenges such as walking, learning to do things for him or herself, and so forth. Second, he emphasized the role of the development of the ego here as in other stages, as opposed to Freud’s developmental psychology anchored in id impulses. And third, rather than see the challenges of childhood from the limited standpoint of a given culture, he noted that these challenges and the way they are handled by parents and society differ across cultural settings.

Third Stage: Initiative versus Guilt (Psychosexual Modes are Genital, Locomotor)

Here again Erikson does not break away from Freud – he does acknowledge oedipal factors in development – but yet at the same time he expands and broadens the description of this stage by increasingly recognizing social factors. On the more traditional side he states that “Infantile sexuality and incest taboo, castration complex and superego all unite here to bring about that specifically human crisis which the child must turn from an exclusive, pre-genital attachment to his parents to the slow process of becoming a parent, a carrier of tradition” (1950/1985, p. 256). But notice that this Freudian endorsement also contains the notion that the child identifies with the parent, and by doing so learns to adopt and internalize the role of the same-sex parent through observation and imitation. Initiative is implied in these attempts at imitation, but guilt occurs when the child’s developing conscience feels in competition with the parent (i.e., oedipal feelings). The parents are viewed by the child as big, powerful, and threatening – and the truth in these perceptions is evident even if one discounts the Freudian notions of castration anxieties or penis envy.

Initiative is actualized through the child’s expanding repertoire of capabilities. Children at this age are extremely active and mobile, or in Erikson’s terms, locomotive. They are talkative, and they experiment and learn through imaginative play. (The latter idea seems likely to have been inspired by Erikson’s training in the Montessori method; notice, too, the parallel with Piagetian theory.) The child’s conscience can put a damper on this very active development, however, if parents instill guilt feelings by insisting too strongly on
“good” behavior. Thus while the basic strength associated with this period is a sense of purpose, the core weakness is inhibition.

Fourth Stage: Industry versus Inferiority (Psychosexual Mode is Latency)

According to Erikson, the child has at this stage (per Freud) sublimated oedipal impulses and “now learns to win recognition by producing things. He has mastered the ambulatory field and the organ modes…He develops industry – i.e., he adjusts himself to the inorganic laws of the tool world…His ego boundaries include his tools and skills: the work principle…teaches him the pleasure of work completion by steady attention and persevering diligence” (1950/1985, p. 259). The basic strength of this stage is therefore competence. The child that is ill prepared for school or lacks the tools for learning from life’s experience will despair. Successful resolution of crisis at this stage stems largely from preparation at earlier stages. Erikson used the term inertia (as in inert, or passiveness) to define the core pathology, the antithesis of competence. But for most children, this is a period of relative calm, as it was in Freud’s exposition. Inner conflicts give way to increased learning and mastery of the skills needed to succeed in later life.

Fifth Stage: Identity versus Role Confusion (Psychosexual Mode is Puberty)

Adolescence is a time of great change: the body and the sexual organs mature, new expectations for social and academic adjustments arise with the transition to middle school, self-image typically suffers, and life can be very stressful, especially in the earlier transition stage. The basic task of this period is to separate oneself from one’s parents – especially the same-sex parent – and to assume an identity of one’s own. The latter is a very difficult task; many people do not fully succeed in it today until they are well beyond their teen years. Oedipal conflicts again return with full force (in agreement with Freud), but the child who is no longer quite a child must now learn to displace the sexual feelings for his or her opposite sex parents onto others. In the
later phases, this is done partially through ritual courtship practices traditionally known in our own society as “dating.”

Teens not to merely learn “who they are,” they must at the same time learn to define and invent themselves. Identities are tried out like new suits of clothes. Role models may be parents, teachers, coaches, film stars, athletes, or “outlaws.” Parents can rightly guess that the latter is a potential nightmare. But parental perceptions can be distorted too; teen rebelliousness sometimes takes a “dark” turn, but this doesn’t mean that the youngster has lost her or his core set of values. “Metallic” or “Goth” appearances and piercings are usually just experiments (though tattoos are permanent), and the worried parent can usually get through these stages with the mantra that “this, too, shall pass!” But there are times when the wise parent must put his/her foot down and assume a more authoritarian role: teens, like small children, sometimes require the imposition of rules and limits, especially where their activities border on danger – as in the cases of drug experimentation, permissive sexual behavior, or hanging out with the “wrong crowd.” The conflict for the parent, then, is how much freedom to grant, and how much control to assume, over the young person who is at once both a child and an adult. The fostering of mutual respect and appreciation of the positions of both parties is the key.

The teen years are indeed a time of identity crisis, or in Erikson’s terms “a turning point of increased vulnerability and heightened potential” (1968, p. 96). The basic task is, in Erikson’s terms, fidelity or truthfulness and consistency to one’s core self or faith in one’s ideology. The core pathology is repudiation of the assumption of a healthy role formation. Repudiation can take the form of defiance of authority or of resignation and despair, which Erikson termed diffidence.

Some of the coping mechanisms for the teen who is confronting his or her identity that Erikson discusses (also see Kroger, 2000) are:

- **Foreclosure:** In order to suppress the anxiety that attends lack of identity, some adolescents prematurely assume an identity of convenience; someone else’s value system, such as that of one’s parents, without giving the matter very much thought or
consideration. **Example:** “My father was a dentist – I know that’s what he has in mind for me and that is what I shall become.”

- **Moratorium:** A “time out” or suspension of the search for oneself while exploring different options. **Example:** Erikson himself used this strategy in his youth as he wandered through Europe before committing himself to a career.

- **Diffusion:** This essentially represents a kind of apathy in which the youth lacks any kind of passion or commitment. **Example:** “I don’t really feel committed to anything – I do what I can to get by in school.” As another example, from Arthur Miller’s (1949/1976) play, *Death of a Salesman*, the character Biff states: “I just can’t take hold, Mom, I just can’t take hold of some kind of a life” (cited in Erikson, 1959/1980, p. 97).

- **Positive role identity or identity achievement:** This is the sense of really knowing who one is and in general, where one is headed in life. **Example:** “I know that I value justice – I intend to study law and do my part to make a better world.”

- **Negative role identity:** This refers to the rebellious denial of the expectations of parents or society; the opposite is instead chosen. **Example:** The son of a police officer decides to join a gang of drug users and petty thieves.

**Sixth Stage: Intimacy versus Isolation (Psychosexual Mode is Genitality)**

Erikson viewed **intimacy** or closeness and mutual sharing with another as the basic strength of this stage, **isolation** as its core pathology. Erikson believed that intimacy between two people as a couple was only possible when each had developed a strong sense of identity separately. Unfortunately, many couples in his day married at a very young age, so this was by no means always the case. The dilemma is that it is difficult (though possible in rare cases) for two people to grow and mature together unless they have first matured.
separately. Not surprisingly, divorce is a common outcome for couples who marry while still quite young and immature.

Young adults often still have not advanced in maturity from adolescence. Although some have achieved a level of maturity by the early twenties, many others do not arrive at this level until well into their thirties – and still others never do attain full maturity. In today’s complex world, attainment of maturity and relative independence seems to take considerable time. Perhaps it is fortunate, then, that people tend to marry somewhat later than they did in the 1950s.

By *genitality* Erikson referred to sexual intimacy. This is the physical correlate of psychological intimacy. Good sexual relations depend on the ability of each partner to share and care, not to exploit or hurt the other. Sexual love must be unselfish.

**Seventh Stage: Generativity versus Stagnation (Psychosexual Mode is Procreativity)**

To a great extent both Freudian and Eriksonian psychoanalysis emphasized the normalcy of traditional morality. At the times they were writing conventional social standards called for young men and women to marry and produce children. The man was expected to have a career or profession, which for the woman was optional. Times have obviously changed, as today marriage itself is seen by many people as an option, even if they are engaged in a long-term relationship and have children. Homosexual marriage is now accepted by much of society. And homosexuality itself, once seen as a psychological disorder, is no longer considered such by psychiatrists and psychologists.

When Freud and Erikson were writing, sexual intercourse culminating in mutual orgasm in a marital relationship was considered the ideal expression of complete fulfillment between a man and a woman. Since the pioneering work of Masters and Johnson (1966), ideas about sex and love have changed. The combination of sex, love, and commitment (whether or not people are married) still resonates with many people as an ideal kind of relationship. But other options – for instance, protected sex for its own sake between consenting adults prior to or without marriage – are now also acceptable to many
people. Variations in sexual practices that go beyond standard intercourse are also now widely accepted by sex researchers and by the public as valid and welcomed alternatives in promoting mutual satisfaction to sexual partners.

With these changing mores in mind, some of the earlier psychoanalytic writings may seem quaint to today’s reader. Freud in particular, for all his talk about sexual repression, would today be seen as a bit prudish in his ideas, and in his own life. But Freud began a trend of openness about sexual matters that continued well into the twentieth century, and changes in attitudes toward sexual practices were only beginning to be felt at the time the first edition of Erikson’s *Childhood and Society* first appeared in 1950; thus this context must be considered when evaluating his work. Remember too that Erikson was breaking new ground by extending the stages of development into the adult years and throughout the remainder of the lifespan. His writings on the later stages of development were highly innovative, if somewhat sketchy.

Erikson’s ideal of *generativity* thus includes what many see as old-fashioned notions about conventional sex between married adults. But he also went beyond this: generativity in its broadest sense refers to creative and productive activity through work (recall Freud’s purported dictum on the importance of “love and work” from above). Generativity is about much more than sex and procreation. Erikson’s concept embraces a sense of caring for the future; caring for the next generation. Indeed, Erikson included working for a better world as part of his concept. He recognized that fulfillment in life can be achieved without necessarily having children (or *procreativity*). But it does require the ability to care for and about others. The opposing concept to generativity is *stagnation*, or the loss of self in self-absorption.

Erikson also realized that, though generativity is a dominant theme in the middle years (thirties, forties, and fifties), this kind of caring concern for future generations has its seeds in early adulthood – the childbearing years – and continues throughout the remainder of the lifespan. A sense of connectedness of one generation with another is implied in the concept, and generativity is, in the broadest sense, a symbolic link to immortality through acts and works that will survive
the individual. Based on his own research as well as that of others, Dan McAdams (2001) stated that “Highly generative adults tend to express a more spiritual understanding of life…than do less generative adults. Generativity is also positively associated with volunteerism, community involvement, and voting. Social institutions such as schools, churches, and government agencies depend on the generative efforts of adults.”

**Philanthropy as a Form of Generativity**

Erikson’s concept of generativity implies not simply having children but to giving back or contributing to society and future generations. In the case of philanthropy, giving consists of donating money and time to worthy causes. The Biblical adage “For of those to whom much is given, much will be required” (Luke 12:48) applies. Or as another saying has it, “You can’t take it with you.” Thus, in the nineteenth century, great money givers included men who made enormous wealth in the industrial revolution, such as Andrew Carnegie (founder of U. S. Steel) and John D. Rockefeller (Standard Oil). These were joined in the twentieth century by billionaires such as J. Paul Getty (oil industry) and Howard Hughes (aircraft and tools). Vast portions of their wealth was used to establish libraries, museums, educational endowments and for medicine and scientific research.

Now in the twenty-first century one of world’s richest men, Warren Buffett, has joined another very wealthy man and his wife, Bill and Melinda Gates, in their efforts to fight worldwide disease (including AIDS and malaria) and famine, and to promote educational and scientific research enterprises. Although less wealthy by comparison, the rock artist Bono uses his influence to raise money and lobby governments to advance similar causes. So at a time in which corporate greed and corruption has been making headlines, it is refreshing to see this all of this industrial capital being put to use for such noble causes. And although these names are making news today due to the magnitude of their contributions, many other wealthy and successful business people have contributed large sums to worthy causes in recent years, including Ted Turner, Walter Annenberg,
Davie Koch, and John D. and Catherine T. MacArthur. Former President Bill Clinton and his foundation raised an incredible seven billion dollars for treatment of AIDS in African countries. Contributors included Gates and Buffett, but also media personalities such as Barbara Streisand and media giant Rupert Murdoch.

Carnegie believed that the man who died rich died in shame. Much of his fortune went to financing the arts and education. Rockefeller, though he did die a very wealthy man, was a devout Baptist who gave away vast portions of his wealth. “Rockefeller raised the quality of training doctors in America and found a vaccine for yellow fever. [His foundation] also drove the ‘green revolution’ in agriculture that ended famine in much of the world and, by some estimates, saved 1.5 billion lives” (*The Economist*, 2006). In the same article it was noted that Gates’ mother taught him the importance of giving back, and that Buffett didn’t believe in dynastic fortunes (though too be sure, his descendents will not be left impoverished). It will be interesting to observe the progress of the Gates Foundation in improving the quality of life for both the underprivileged as well as the rest of us over the ensuing years because according to *The Economist*, their combined projected contributions of well over sixty billion dollars dwarfs that of Carnegie and Rockefeller combined (in adjusted dollars). The possibilities are astounding! But the lesson for the rest of us is that we each can do something to contribute to making the world a better place, be it in monetary donations to favorite charities, or in volunteering our time to help others.

Eighth Stage: Integrity versus Despair (Psychosexual Mode is “Generalization”)

*Integrity* in the later years of life implies acceptance of a life that was well-lived. It does not mean that life is over, for these can often be very productive years. But by this age a person begins take a reflective and evaluative look back at his or her life. A person may ask questions like “Was my life fulfilling?” or “What was I able to accomplish?”
Life is full of choices and there are always many roads that were not taken by all of us. Everyone makes mistakes, including some major or even tragic ones. To be fulfilled does not mean that one has led a perfect life. But if one has managed life reasonably well and come to grips with one’s shortcomings, practiced meaningful self-forgiveness where called for, and taken into account both positive and negative factors from one’s past, then a positive sense of integrity ensues. **Despair**, however, implies a lack of further hope. Despair can result from unfulfilled potential or a feeling that one has wasted one’s life, without hope for personal redemption.

Despair is often disguised by an outward attitude of contempt toward others. Such contempt, according to Erikson, really reflects contempt for the self, projected outward.

After a lifetime of living and learning, Erikson stated that **wisdom** is the basic strength associated with later years, based on the well-lived life. **Disdain** is the core pathology of this stage.

**Joan Erikson: The Ninth Stage**

Joan Erikson was Erik’s partner in thinking and in authorship, though sometimes a silent one – yet they worked as a team for over sixty years. In *The Life Cycle Completed* (Erikson, 1997) much of what is seen in this final revision of an earlier book came from Joan’s hand, including final chapters written by her alone. Yet Erik’s voice is there, too. When the earlier (Erikson, 1982) version first appeared, Erik Erikson “…left no page free of underlining, exclamation marks, and notes. Only an artist would be so daring and forthright,” according to Joan Erikson, in her preface to the extended edition (1997, p. 5). In fact, it could be said that neither of the Eriksons were ever quite satisfied with their achievements, because they were both, in fact, living and experiencing the life cycle first hand while at the same time observing themselves and others. And the truth is that they first wrote about the eighth stage before they had even come close to experiencing that stage for themselves. Clearly, the Erikson’s came to believe, “…the role of old age needs to be reobserved, rethought” (J. Erikson, cited in E. Erikson, 1982/1997, p. 62).
The Life of Integrity and the “Unbearable Lightness of Being”

How ought a person to live the “good life”? This is a question that philosophers and theologians have grappled with for centuries. A person has only one life to live, right? Perhaps, but Buddhists and Hindus believe in reincarnation.

Friedrich Nietzsche posed an interesting thought experiment. Suppose time and the universe were (as was then thought) infinite in magnitude and eternal with respect to time. Would this mean that ultimately by random chance atoms would rearrange themselves at some time and place in such a way that our world would be replicated exactly? And in fact, if one really thinks about it, wouldn’t this same recurrence happen over and over in the course of infinite time, where all people and all things would then exist in exactly the same configuration? (The argument is similar to that of a roomful of monkeys randomly banging away on typewriters over the eons, eventually reproducing Shakespeare’s works.) Nietzsche (1882/2918) called this concept the eternal return.

In the novel The Unbearable Lightness of Being Milan Kundera (1984) considers this possibility and its moral implications. He asks:

“What does this mad myth signify? Putting it negatively, the myth of eternal return states that a life which disappears once and for all, and does not return, is like a shadow, without weight, dead in advance, and whether it was horrible, beautiful, or sublime, its horror, sublimity, and beauty mean nothing. We need to take no more note of it than a war between two African kingdoms in the fourteenth century, a war that altered nothing in the destiny of the world, even if a hundred thousand blacks perished in excruciating torment…how can we condemn something that is ephemeral, in transit? In the sunset of dissolution, everything is illuminated by the aura of nostalgia…” (pp. 4-5).

But on the other hand: If the French Revolution were to recur eternally, French historians would be less proud of Robespierre “…There is an infinite difference between a Robespierre who occurs
only once in history, and a Robespierre who eternally returns, chopping off French heads” (p. 4).

The first scenario – what happens just happens, then passes and in time is forgotten, Kundera believes carries no weight – instead, it calls for a “lightness of being.” But the second is “heavy” – the consequences are in a sense “eternal.” He asks the reader “What then shall we choose? Weight or lightness?” The novel then proceeds with four characters, two of whom seem to embody “lightness” – a lifestyle of living in the present and seeking pleasure whenever it can be found; and two whom represent “ heaviness” – a way of life that looks to the past and to the future and weighs the consequences of their actions. The plot takes place in Czechoslovakia during the time of the uprising of the people against the Soviet Union, in Prague, 1968. The moral implications of the characters and their actions, and their implications for personal integrity, are wisely left to the reader.

This rethinking led Joan Erikson to formulate a ninth stage of very old age – for most people, this occurs in the eighties or in the nineties (for those who are fortunate enough to live so long). It is a time when physical health begins to deteriorate, when one has lost many close friends and family members, and when death itself becomes a much closer reality. In doing so she recognized (as Erik also had) the always close connection between culture and identity. In our own culture, she observed, old people are often isolated from the rest of the community. She quoted Erik as saying “Lacking a culturally viable ideal of old age, our civilization does not really harbor a concept of the whole life” (p. 114). As a result, she noted that “aged individuals are often ostracized, neglected, and overlooked; elders are seen no longer as bearers of wisdom but as embodiments of shame” (p. 144). She believed that “Something is terribly wrong. Why has it become necessary to send our elders ‘out of this world’ into some facility [such as retirement communities and assisted living facilities] to live out their lives in physical care and comfort?” (p. 118). Such treatment runs quite counter to traditional cultures, in which elderly people are cherished and valued for their wisdom and their connectedness with the past, and their contribution to and connections with the younger
generations (generativity again). More positively, she believed that “… people can and do maintain a grand-generative function” (p. 63; as in grand-parenting).

Among the challenges of the ninth stage is the loss of autonomy (per the second stage of development) due to increasing loss of physical (and sometimes mental) independence. Loss of self-esteem is a common result, and reduced hope and trust (or regression back to the first stage) may result.

Joan Erikson promotes Lars Tornstam’s (1993) concept of gerotranscendence toward the final stage of life, which consists of these changes in perception:

1. A feeling of “cosmic communion” with the universe (or spiritual connectedness),
2. Time being circumscribed (the future is limited),
3. Reduced mobility, implying a narrowing of personal space,
4. Death being seen philosophically as “the way of all living things,” and
5. A sense of self expanding to include “a wider range of interrelated others” (J. Erikson, in Erikson, 1997, p. 124).

She also offers a number of constructive suggestions on how our society could improve on its regard for, and care of, its elderly (e.g., hospice is good, but isolation from others – especially the very young – is not).

It seems appropriate to end this section with this quote from her final chapter (p. 128):

*To grow old is a great privilege.*

**Evaluating Erikson**

**Erikson’s Positive Contributions**

Erikson’s quotations cited at the chapter’s beginning suggest a kind of modesty – Erikson brought his artistic sense and sensibilities to his writing and offers a new way of looking at things. But his modesty belied his major contribution to psychology.

245
It is true that the days of the “Grand Theories” in psychology – those attempts to unite the many threads from extant research findings and isolated observations into a tightly woven fabric of theoretical “silk” – seem to be a thing of the past. Piaget, Freud, Erikson, and some of the humanists (Rogers and Maslow) were all theorists in this grand sense. There is much more demand today for hard data to support more modest models and mini-theories, without the speculative gaps that existed for these earlier theorists.

But Erikson’s perspective has achieved several worthy ends. He not only expanded Freud’s theory to later stages of life, but he also broadened it considerably, by emphasizing cultural differences and by his stressing the development of the ego through identity challenges that were more psychosocial than strictly biological. In couching his theory in terms of these identity crises, he provided a broad (and yes, artistic) framework for viewing development throughout the lifespan. Although based largely on personal observation and intuition, including reflections on his own life, many of these observations were indeed insightful, and have led to many new and fruitful research studies (e.g., de St. Aubin, McAdams, & Kim, 2003; McAdams & de St. Aubin, 1998, on generativity). Erikson’s belief that couples who married young were most likely to succeed when each of the individuals has achieved a degree of identity themselves has also received support in empirical research (Helson & Pals, 2000; Pals, 1999), at least in terms of women’s self-identity. And Marcia (1966; 1980) has studied adolescent identity formation according to Eriksonian principles.

**Critiques of Erikson**

If Erikson’s artistic, prosaic style has inspired many people it can also be criticized for its vagueness and subjectivity. Erikson himself accepts this criticism implicitly in affirming that he was guided by his artistic sense, not by scientific training or methodology.

Erikson also wrote in the male voice, as was typical of psychologists (and indeed, most scientific writers) of an earlier age. But beyond that, Carol Gilligan (1982) believed that he also portrayed a masculine psychology in his stages of development. She noted that
Erikson (1968) recognized a somewhat different pattern of development for girls and women – one that depends more on intimacy and relationships with others and less on autonomy, separateness, and independence – but that Erikson failed to update his stage descriptions accordingly.

How many male writers in the past have had “silent partners” in their wives or muses? Maybe the wife got a note of acknowledgement or appreciation in a dedication of a footnote; yet we can only speculate on how many of these women were deserving of co-authorship. But this was once a common practice because the wife’s “duty” was to aid in the advancement of her husband’s career. Joan Erikson seems to have been short-changed in this regard; but even so, the professionals who knew them both recognized and respected Joan’s contributions. This was no secret. But “The genius of women has always been easy to discount, suppress, or attribute to the nearest man” (Hustvedt, 2016, p. 334).

Erikson was also writing in an era that predated more recent social movements and change, including not only the influence of feminist thought, but also gay rights. The social “ideal” of his age was that young adults would marry someone of the opposite sex, become established in a career (in the case of men) and raise a family of children (especially relevant in the case of women). To appreciate Erikson requires an accommodation in perspective today. Think, for example, that today many women have careers and do not wish to have families; or that gay and lesbian couples may adopt children rather than necessarily conceiving them. Readers may need to adjust your understanding of Erikson accordingly.

Putting Erikson in Perspective

Though the criticisms of Erikson seem valid, Erikson seemed to want to be taken “as is” rather than to address them through revision. Perhaps, then, it remains for others to update Erikson, both in terms of the need to differentiate girls’ and (women’s) developmental paths from boys’ (and men’s) and in the more general need to fill in the conceptual gaps in his theory with new research findings.

Erikson will no doubt be remembered as a great synthesizer as well as an original thinker; and as a one who provided a valuable
conceptual framework for understanding human personality development through personal identity, yet still within the psychodynamic tradition. There is also little doubt that his ideas will continue to guide research in human development for many years to come.

****
For Thought and Discussion

1. In the first stage of development – Basic Trust Versus Basic Mistrust – Erikson believes that an anxious mother can transmit her anxiety to her child, with negative consequences for that child’s development. Suppose a correlational study was conducted in which a correlation was indeed found between mothers’ and babies’ anxiety. Correlation, of course, does not imply causation. What alternative explanations might be suggested to account for this finding?

2. If you have (or have had) children at the second stage of development (Autonomy Versus Shame and Doubt), think of the kinds of conflicts of will you have had with your children. Make notes on these and share with the class.

3. Pick any two of Erikson’s eight stages. Think of someone you know who seems to fit into each of these stages in a positive or negative way. Describe them (share with the class).

4. Class discussion: Erikson and Freud were both very traditional in their ideas about sexual adjustment. Think about how times have changed, and discuss alternative ideas.

5. Erikson thought that anxious mothers transmitted their anxiety to their infant children, resulting in feelings of insecurity and lack of trust. What alternative explanations might account for such insecurity in babies? (Consider again the “nature/nurture” antimony).

6. Think about your own life and where you are going. What kind of an old age would you like to have? (For class sharing.)

7. How does the treatment of elderly people in our culture differ from that of traditional cultures? How might the treatment of elderly people be improved in our society?

8. To what extent do you think that Erikson’s framework applies (or fails to apply) to women as well as to men? To what extent do you think it would work or not work with other cultures?

*****

249
Notes

2. Erikson (1950/1985, p. 359. Both this and the previous quote suggest a kind of modesty in Erikson regarding his contributions. In a sense, both quotes are accurate, yet taken at face value they belie his true genius. There always has been and hopefully there always will be a place for the keen perspective of the artful eye in psychology. See especially my remarks on this at the end of Chapter 17.
3. Today psychologists would recognize the connection of these symptoms to post traumatic stress disorder (PTSD).
Part IV:

Personality and Social Development:

Learning and Social Cognitive Perspective

Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I’ll guarantee to take anyone at random and train him to become any type of specialist I might select – doctor, lawyer, artist, merchant-chief, and yes, even beggar-man thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors.

–John B. Watson

An experimental analysis shifts the determination of behavior from autonomous man to the environment . . . . But environmental contingencies now take over functions once attributed to autonomous man, and certain questions arise. Is man then “abolished”? Certainly not as a species or as an individual achiever. It is the autonomous inner man who is abolished, and that is a step forward.

–B. F. Skinner

The Behavioristic Paradigm for Learning Theory

The Dominance of Behaviorism in American Psychology

The history of academic psychology in America in the early to mid-twentieth century is largely the story of learning theory, and underlying this emphasis on learning was the paradigm of behaviorism. Psychologists of this period who studied learning processes were mainly concerned with learning through conditioning. They studied both classical conditioning, as formulated by Ivan Pavlov, and operant conditioning, which is closely associated with B. F. Skinner’s work. Before defining and elaborating on these two kinds of conditioning, a very brief history of psychology traces some important trends in psychology. In particular, it is interesting to see how psychology became so centered on learning theory, and also on its rather narrow, behavioristic framework for studying the dynamics of learning. What psychology was in its earliest years, what it became from there, and where it may
go next as a field, are all important considerations for putting things in perspective, because psychology as a field has undergone several identity crises in its brief history: Its very definition has changed more than once – and that definition in itself has radically altered what psychologists think about and the phenomena that they study.

**A Very Brief History of Early Psychology**

In its early days as a scientific discipline, psychologists in the tradition of Wilhelm Wundt began measuring human behavior in laboratories. Wundt founded the first major experimental psychology laboratory in 1879, in Leipzig, Germany. This is considered a landmark date in psychology, but even before this, in 1862, Wundt devised an instrument he called a “thought meter” (Gregory, 2013). Gregory described this contraption as a device that “was a calibrated pendulum with needles sticking off from each side. The pendulum would swing back and forth, striking bells with the needles. The observer’s task was to take note of the position of the pendulum when the bell sounded…Wundt thought the difference between the observed pendulum position and the actual position would provide a means of determining the swiftness of thought of the observer (p. 5).” Although Wundt was concerned with the search for general laws in psychology, he also acknowledged that individual differences could be found in sensation and perception. Gregory notes that psychologists at the time, which he called the “brass instruments” error (because many lab instruments such as the thought meter were made of brass), mistook the ability to accurately detect the simultaneity of these two events as a measure of intelligence. In a similar way, most other so-called brass instrument devices measured reaction time in some form.

The mid to late nineteenth century was a productive era for psychological science in many areas. Gustave Fechner, working in an area called *psychophysics*, was studying human sensation – how varying the intensity of physical stimuli such as sound, light, and skin pressure, affected detection of sensory input (sensory threshold detection). For instance, psychophysicists study how many decibels a musical note must be increased before a subject perceived the increase (the “just noticeable difference,” or “jnd” unit). During this
same era, Hermann Ebbinghaus pioneered techniques on studying recall in memory using lists of “nonsense syllables,” which were three letter words which included a vowel sandwiched between two consonants (e.g., DAK, BUP, NOP, KEZ). Because both the psychophysicists and those studying memory and forgetting could map out mathematical curves and functions, psychologists began to feel that their field was moving away from the realm of philosophy, and becoming a respectable physical science in its own right.

In England, Sir Francis Galton was busy studying individual differences in numerous areas of human functioning, including measures of reaction time, the aesthetics of beauty, physical differences among people (such as height and weight), personality, intelligence, and so on. Galton believed that all human traits on which people differed could be measured objectively. Galton was considered the father of mental testing.

**Francis Galton: Genius, or Dilettante?**

Wundt was fortunate in one sense – German universities began to recognize the importance of the new field of psychology as a scientific discipline. But in England, universities did not support psychology. How, then, did Galton manage?

Galton was not a psychologist, but a man of many interests. Morton Hunt (1994) described him as “A genuine polymath, he was a successful inventor, award-winning geographer, authoritative travel writer, meteorologist, developer of the first workable system of identifying fingerprints, pioneer in the use of twin studies to tease apart the influence of heredity and environment, and inventor of correlational analysis, one of the most valuable tools of psychology and other sciences” (pp. 209-210). [Although Karl Person worked out the mathematical details of correlation, Galton originated the general concept.] He devised a number of scorable tests of human abilities, including intelligence, making him the “father of mental testing.” Galton attempted to measure every kind of human attribute, from strength to intelligence – even psychological states such as
boredom, and he went so far as to propose quantifying the power of prayer. Yet his visage was narrow when viewed from today’s perspective. The grandson of scientist-philosopher Erasmus Darwin, he was Charles Darwin’s cousin. Perhaps, then, it is not surprising that he came to believe that genius ran in families. Lacking support from government and university, but with a strong intellectual background and family wealth, Galton pursued his interests on his own.

His belief in the inheritance of most psychological and physical traits, including intelligence, must have made him feel that he, himself, was one of the elites. He was a founder of the eugenics movement which advocated social engineering based on hereditary endowment. Those with better genetic endowment – the more intelligent – should be allowed to have bigger families; those at the lower end of the scale should perhaps not be allowed to reproduce at all! His ideas were also decidedly racist: He believed black Africans to be inferior in mental ability to white Europeans, for example. His notions about eugenics were misused by misguided researchers later on. For example, in testing immigrants to the United States at Ellis Island in the early twentieth century, central and eastern Europeans, such as Italians and Poles, as well as Jewish immigrants, were “found” to be mentally deficient as a group (although mainly they couldn’t pass the tests because of poor English language skills; Gould, 1996). Again, the presumption was that these lower scores were due to the genetic inferiority of these peoples rather than to differences in education or culture.

Shortly after the turn of the century, Alfred Binet and Théodore Simon (1905) created the first standardized intelligence test in France. French psychologists Janet and Charcot were studying hypnosis as a treatment for hysteria, works that influenced the great Viennese psychoanalyst, Sigmund Freud.

In America, William Bradford Titchenor and James McKeen Cattell, both former students of Wundt, became established in American universities, Titchenor at Cornell, and Cattell at Columbia. Cattell was the first psychologist to use the term “mental testing”
(Gregory, 2013). He became very interested in studying individual differences in reaction times for many kinds of mental tasks. By contrast, Titchenor was not interested in the mental testing tradition of mapping out individual differences in various abilities, but rather emphasized the experimental study mental activity. More in the spirit of Wundt, Titchenor was searching for general laws of psychology. But his focus was on mental processes, not external behavior. Much later on, Lee Cronbach (1950) would refer to these approaches as “The Two Disciplines of Scientific Psychology” (i.e., the study of individual differences, per the mental testing tradition, and general processes, per the experimental tradition).

Titchenor’s psychology became known as structuralism because he attempted to analyze the structure of consciousness using a technique known as introspection. This method required that highly trained observers report on their mental activities: Sensations, feelings, images, and the like. Unfortunately, this method proved fruitless; it was simply impossible for people to make meaningful scientific advances by studying the workings of the mind in this manner. However, another American psychologist, William James (1890/1950), viewed consciousness differently. James’ approach, based on the Darwinian idea of adaptation, was called functionalism. James believed that consciousness, including perception, thought, and feelings, had all evolved to serve in the survival of the human species, and therefore, that all must in this sense be functional. Consciousness for James was like a stream or flow of thoughts and images, which he called the stream of consciousness; conceptually it was nothing like a static structure whose content could be captured and analyzed at some particular time point. James was a highly educated and very well-rounded man, who was one of the developers of the philosophy of pragmatism. He was also the first major psychologist to study the psychology of the self, including the self-concept.
Introspection and Structuralism:
How Did Titchenor’s System Actually Work?³

Titchenor wanted to study conscious experience objectively. To do so, he trained others to be diligent observers. To learn how one perceived an object, say a desk, the observer attempted to objectively describe the object as mentally experienced. To call it a “desk” was considered a “stimulus error,” because it was based on one’s prior knowledge of the object. Instead, the observer would describe things like the shape, the intensity of the color and so on.

The structuralists were interested in three aspects of conscious experience: sensation, images, and affectation (emotional experiences), but the major effort was spent on studying sensation. Sensations were described in terms of qualities (e.g., hardness; coldness), intensity (e.g., degree of loudness or redness), and duration (how long the sensation lasts). In addition, observers had to report on the clarity of the conscious experience.

If all this sound odd, consider that the observer’s tasks were not particularly easy to carry out. Although structuralism did not survive as a school of psychology, Titchenor did at least make a strong impression on the field with his insistence on objectivity and on the use of the experimental methods in psychology.

Conditioned Learning: Thorndike and Pavlov. Edward L. Thorndike, a student of both James at Harvard and Cattell at Columbia, was an experimental psychologist with an interest in animal learning. He was obviously influenced by functionalism, and the adaptive nature of behavior in particular. Thorndike was also influenced by Locke’s associationism because he believed that learning of complex behaviors was built upon a foundation of simpler learned behaviors, and that the building blocks of behavior were the connections of responses with reinforcements (as discussed below). Thornkike as well as the behaviorists who followed him in
this tradition also believed that studying the way in which animals learn was considered an acceptable way to discover how humans learn: The principles of learning ought to be the same in higher animals because of our common evolutionary foundations. This follows from C. Lloyd Morgan’s famous canon, “In no case is an animal activity to be interpreted in terms of higher psychological processes, if it can be fairly interpreted in terms of processes which stand lower in the scale of psychological evolution and development” (Morgan, 1903, p. 59). This assumption justified the use of comparative (animal) studies, especially because in studies of conditioned learning and forgetting, human and animal learning curves have essentially the same shape. Indeed, as strange as it may seem today, many psychologists deemed it unnecessary to consider the role of human thought in formulating the basic principles of learning considered by the theorists in this particular era of psychological history.

Thorndike studied trial-and-error learning in animals. Placing cats into box-like cages, he observed that their seemingly random behavior eventually led them to discover a means of escape. Escaping from Thorndike’s boxes required a complex series of movements in which the cat accidentally unlatched a locking mechanism. After a number of trials, the cat learned the movements that allowed it to escape, and of course, tended to repeat them every time it was returned to the cage. This perfectly illustrates Thorndike’s law of effect, which can be stated in various ways; perhaps in its simplest form it can be said that behavior which is followed by favorable consequences (later called a reinforcement) tends to be repeated, and that which is followed by unfavorable consequences (or punishment) tends not to be repeated. Thorndike believed that all learning was built upon the associations (he preferred the term “connections”) made between particular behaviors and the resulting reinforcements. The law of effect became the principle underlying a form of learning called instrumental learning, or later (due to Skinner), operant conditioning (because the animal or person actively operates on the environment via trial-and-error learning; as opposed to Pavlov’s classical conditioning, considered next, in which the organism is essentially passive).
Ivan Pavlov was a Russian physiologist who was interested in the physiology of digestion. In studying salivation in dogs, Pavlov discovered classical conditioning by the vigilance of his observations. He collected saliva in tubes from the salivary glands. In his experiments he noticed that dogs salivated not only when food was presented, but even before that, at the mere sight of the food dish, or of the person bringing the food to the animal. Salivation was not only a basic reflexive, biological process, but it could also be a learned response.

Pavlov studied such learning systematically, by isolating dogs, placing them in harnesses, and removing extraneous stimuli (such as handlers with food) that might affect their conditioning. Then he proceeded to introduce stimuli designed to elicit the salvation response, such as a light going on or a bell ringing just before feeding. Just placing food in the mouth without any such stimuli he called the unconditioned stimulus (UCS), and the resulting salivation he called the unconditioned response (UCR). A previous neutral stimulus (e.g., ticking metronome, light, or bell) was then introduced and paired with the unconditioned stimulus just prior to the feeding. Pavlov called this the conditioned stimulus (CS). After a number of trials, the conditioned stimulus itself triggered the salivation, which Pavlov called the conditioned reflex or conditioned response (CR), as it is better known today.

Classical conditioning can be observed in many ordinary circumstances. People often observe this phenomenon operating in their own pets, when feeding time is preceded by certain rituals, such as opening the food cupboard. Although salivation may not be obvious, the enthusiastic wagging of tails (in the case of dogs), or other signs of excitation are. In other words, the animal has learned to associate this conditioned stimulus (opening bag of cat or dog food, for example) with dinnertime!

If reinforcement is removed (by the experimental psychologist in the lab, or by circumstances in the natural environment), extinction of the response occurs. In other words, if a conditioned stimulus such as Pavlov’s bell, is no longer followed by the presentation of food, the conditioned response disappears after a few trials. But
conditioned responses can be quickly relearned if the reinforcement is reintroduced. This phenomenon is called *spontaneous recovery*.

Also, in both types of conditioning *stimulus generalization* sometimes occurs, in which a broad range of stimuli will evoke the conditioned response. Thus, if the original stimulus in Pavlov’s classical conditioning was a bell with a given tone, some dogs may respond to other tones that are much higher, lower, or louder, and not just the original bell tone. The opposite of stimulus generalization is called *stimulus discrimination*, which refers to the limiting or narrowing of the range of stimuli that will elicit a response. Pavlov’s dogs, for example, could be conditioned to salivate at a tone of a particular pitch – but not a different pitch – simply by rewarding only the first; the dog soon learns which will be rewarded!

### Thorndike and Pavlov: Their Similarities and Differences

Is it true that great minds think alike? In his classic *History of Experimental Psychology*, Edwin Boring (1950) begins with his reflections on *zeitgeist* – the “habits of thought that pertain to any region and period” (p. 5). Another translation of *zeitgeist* is simply the “spirit of the time.” Do people make history, or do the times themselves call forth great minds? Perhaps the era of the late nineteenth and very early twentieth century were ripe for the young science of psychology for the insights of Pavlov and Thorndike – if neither man had done his research, would other brilliant minds have stepped forth with ideas similar to theirs on learning and conditioning? Perhaps these were ideas whose time had come!

Both Pavlov’s classical and Thorndike’s instrumental (or operant) conditioning depend on reinforcement (or reward; or as Thorndike put it, a “favorable consequence”). Pavlov’s “law of reinforcement,” as it is sometimes called, is not very different from Thorndike’s law of effect. But Thorndike (1898) published his ideas first, in dissertation form, about four years ahead of Pavlov (Woodworth, 1948). According to Woodworth, “It took many years before the
identity of these two laws was recognized. The two discoveries were as independent as possible. Thorndike...was following up the evolutionary interest in animal intelligence. Pavlov...came upon the ‘conditioned reflex’... in the course of his investigations of digestion...(1948, p. 50).” Pavlov received the Nobel Prize in 1904 for his research on digestion. Later, on learning of Thorndike’s results, Pavlov acknowledged Thorndike’s priority. But Pavlov always believed that physiology and not psychology (then largely considered the study of mental processes, per Titchenor’s structuralism) was the key to understanding behavior (Woodworth, 1948). Thorndike’s doctoral dissertation remains the most influential of any ever produced in psychology (Myers, 2004).

Yet despite the commonality of reward in both systems, classical and operant conditioning represent two different kinds of processes.

**Watson’s Behaviorism**

In the discussion of the history of psychology to this point, it should be obvious that the subject matter of this field included the studies of both mental processes (per Titchenor’s structuralism as well as James and the functionalists) as well as behavior (as seen in Pavlov’s classical conditioning and the animal learning theories of Thorndike). John B. Watson, however, wished to narrow the definition of psychology to only the study of observable behavior. Watson was quite strongly influenced by Pavlov’s studies of conditioning. Pavlov disdained psychology because he did not believe that there could be a true science based on the study of mental activity. Titchenor’s structuralism, with its fruitless method of introspection, was discouraging enough to psychologists of the time, but Watson also felt that functionalism of James and others was a dead-end street for psychologists. For Watson saw in the study of consciousness a kind of dualistic nonsense whereby mind and body were seen as separable, interacting entities (Heidbreder, 1933). Thus for Watson, there was only one reality, which was that was what could be observed directly and objectively; namely, overt behavior.
Watson’s concern with behavior also led him to a rather extreme environmentalist’s position: What a person was, or who he or she could become, depended almost solely on what was learned in life, or even more narrowly, on their conditioning. Watson’s bold proclamation (quoted at beginning of this chapter) was that he could mold any “normal” child into any type of person one could imagine, ranging from professional to artist, or from genius to fool. The one caveat in this statement seems to be that the infant he would condition should be “well-formed,” presumably meaning that the child had no major physical nor mental defects (e.g., was not retarded). With this one exception, then, heredity played no role for Watson; including one’s intellectual capacities, but excluding certain very extreme cases. By implication, of course, one’s intelligence is therefore almost entirely a function of one’s experience (contrast this with the notion of heritability of intelligence, discussed in Chapter 6).

Following Pavlov in particular, Watson used classical conditioning as his model for a psychology based primarily upon the principles of learning. Looking to Morgan’s canon, he also believed that the laws of behavior could be understood though comparative psychology, through the laboratory study of animals. Research with animals also had the advantage of laboratory controlled environments, which could not be so readily imposed upon human subjects.

Watson is also known for his famous (or infamous) “Little Albert” experiment, conducted with his associate, a graduate student named Rosalie Rayner (Watson & Rayner, 1920). They wanted to demonstrate the effectiveness of Pavlovian conditioning on humans; specifically, they conditioned a kind of fear response in an infant (Albert) who was only nine months old at the time. Albert was initially unafraid of a tame white rat (or of other furry animals and objects) at the beginning of the experiment. Watson and Rayner used an unconditioned stimulus – a loud clang of a steel bar struck with a hammer – introduced along with the white rat. They were quite successful; after only a few pairings over a couple of weeks, poor Albert demonstrated a very strong fear reaction at the sight of the rat. But he also became fearful of other furry animals and fuzzy objects, even a Santa Claus mask. Albert was, fortunately or unfortunately,
adopted shortly after this experiment, so the experimenters never had a chance to extinguish this fear response.

Interestingly, another associate of Watson’s, Mary Cover Jones, applied classical conditioning to another young boy – Peter, aged three – who had acquired fears of furry animals and furry objects through the course of experience. Jones (1924) pioneered a therapeutic technique that later came to be known as **systematic desensitization** in which fears or phobias are treated by a kind of **exposure therapy**. In this case, a caged rabbit was placed in the same room as Peter, but at quite a distance away. Each day the rabbit cage was moved closer and closer to the child. To shorten the story, eventually Peter was able to not only tolerate the presence of the rabbit, but also was able to touch and pet it. Additionally, Peter lost his more general fear of furry objects (another case of stimulus generalization). But it was not until much later that the technique of systematic desensitization became widely used as a method of treating phobias. This method was more fully exploited by Joseph Wolpe (e.g., Wolpe, 1969). (Wolpe combined incremental degrees of exposure with relaxation and anxiety reduction methods.)

### Watson’s Success on Madison Avenue

Watson’s personal (as well as his professional) life were certainly interesting. A married man, he had an affair with Rayner, who at the time was a single graduate student. When this affair became public, Watson and his wife divorced. He later married Rayner, but he was dismissed from his academic position as a result of the scandal.

Watson joined the J. Walter Thompson advertising agency where he began a new and very successful advertising executive. He was known for his use of psychological principles in creating advertising campaigns. Earlier in his career, Watson (1919) had identified three basic emotions that he believed were innate: fear, rage, and love. He used appeals to these, as well as to sex (à la Freud), in his ads. In other words, he wanted to either scare the heck out of people, make them mad, appeal to their best nature, or catch their attention with sexy advertisements. In classical conditioning terms, the product that
he wanted to sell became associated with these basic human tendencies. These methods worked, and of course, are still widely used today. If we worry about bad breath or perspiration stains, or love the fresh feel and softness of a brand of tissue paper – or if men want to drive the sports car endorsed by a beautiful model – remember that it was Watson who pioneered such ideas.

Watson on Parenting

Watson (1924) believed in a no-nonsense approach to parenting. Parents should put the infant on the parent’s schedule, not the other way around. Neither did he believe in excessive displays of emotions toward the child; hugging, kissing, fussing, cuddling – these were all to be avoided. Don’t be “mawkish and sentimental” with your children, Watson advised. He also wrote articles in popular magazines urging parents to follow such practices.

Watson’s actual influence on parenting practices is difficult to gauge, but probably other writers such as Benjamin Spock (1946/1968) and Arnold Gesell (e.g., 1946/1954) were both more moderate in their views, and also more influential with parents.

B. F. Skinner’s Operant Conditioning

Skinner like Watson believed that the purpose of scientific psychology was the prediction and control of behavior. Like Watson, Skinner believed that psychology needed to be purged of mentalistic concepts, internal states (or “explanatory fictions,” in Skinner’s words), and considerations of psychological histories, heredity, or instincts. And also like Watson, Skinner was an articulate spokesman for the behaviorist cause. They differed in some respects, however. Whereas Watson worked more with classical (Pavlovian) conditioning, Skinner – though he recognized that classical conditioning had its place – stressed mainly the importance of operant (or instrumental) conditioning. If Watson’s great influence was Pavlov, Skinner’s was Thorndike. But between Watson and Skinner, Skinner was by far the better scientist.
Operant conditioning is thus concerned mainly with the influence of environment on behavior. The organism operates on the environment (by seemingly random or trial and error behavior). Behavior that is reinforced (“rewarded”) tends to be repeated, so if the scientist wishes to understand behavior he/she must study the environmental conditions that foster the behavior – in particular the circumstances that immediately precede it. Thus it is the environment controls behavior; or to put it slightly more accurately, behavior is controlled by its consequences.

Operant conditioning differs from classical conditioning in that the latter assumes a certain stimulus (UCS or CS) that is associated with a given response (UCR or CR). This Pavlovian model is sometimes known as S – R psychology (for stimulus – response). Skinner referred to this as respondent conditioning because the organism responds to the presence of a stimulus. In contrast, with operant conditioning there need be no specific stimulus that is associated with a response; rather, the response is controlled by what follows, namely the reinforcement.

Skinner believed that most everyday behaviors can be explained by operant rather than by respondent conditioning. While it is true that the sight of a box of chocolates might cause one to literally salivate, or that the scent of night-blooming jasmine might elicit a pleasant, nostalgic memory, most of what people (or animals) do does not depend on such specific stimuli – rather, behavior is much more a function of past reinforcements. Operant behavior for most of us is likely to include rising at a certain time on weekdays, preparing for work or school, and going about one’s business in an ordinary way throughout the day. All of our routines are mainly shaped by past consequences, which include both reinforcements and punishments.

Skinner’s learning paradigm is best illustrated by his use of the **Skinner box**: A literal box housing the animal (typically rat or pigeon) with a water spout for drinking and a lever that the animal learns to press (or peck as the case may be). In response to the bar pressing the animal is reinforced by the automatic release of a food pellet (or perhaps a piece of corn). In a simple learning experiment the animal (e.g., rat) learns to press a bar because it is reinforced for
this behavior with the release of the food. After many such trials, when the behavior becomes established, learning is said to have occurred, as with Thorndike’s cats. But to Skinner this learning is nothing more than the lawful relation of response to reinforcement; there is no necessity to posit any sort of motivation or need, or perception of the situation by the animal.

However Skinner did go so far as to state that deprivation of food or water created a state of increased activity which in turn could lead to quicker learning. He might even use the term “hunger,” though not as a description of an internal state, but rather as operationally defined as hours of food deprivation.

**Basic Principles of Operant Conditioning**

The phenomena of extinction, spontaneous recovery, and stimulus generalization and discrimination occur in operant conditioning just as they do in classical conditioning. In the case of the rat in the Skinner box, extinction of the bar pressing behavior occurs when the animal ceases to be receive the reinforcement (food) over many trials. But relearning is quicker (spontaneous recovery) when the reinforcement is reintroduced.

A pigeon can learn to peck at a colored disk for which the bird is reinforced. Suppose the original disk is red in color. If the experimenter next introduces a disk of a different color and the pigeon continues to peck it, this is a kind of stimulus generalization; but if only rewarded for pecking a disk that is red, the pigeon soon learns that more specific behavior (stimulus discrimination).

**Types of Reinforcement and Punishment**

For Skinner a **reinforcement** is anything that increases the probability of the occurrence of a behavior (or in his terms, of an operant response being emitted). **Primary reinforcers** satisfy basic biological needs, such as food, water, and sex. **Secondary or conditioned reinforcers** are learned. Examples of the latter include many social needs, such as a child being praised, hugged, or patted for good behavior. Money, status, and property are typical secondary reinforcers for adults.
Positive reinforcement can be primary or secondary; positive reinforcement occurs when a person or animal emits a response (acts in a certain way) such that the action results in the increased probability of that behavior being repeated. (Recall that Thorndike used the term reward rather than reinforcement, defining it as “a satisfying state.” Skinner, however, found this term too mentalistic.) Examples of positive reinforcement are quite easy to come by: If a student studies hard her positive reinforcement is a good grade, or if a child does his chores on time he gets an advance on his allowance.

Contrary to what many people believe, negative reinforcement does not pertain to behavior that leads to negative consequences: That state of affairs is known simply as punishment. In punishment the performance of a certain behavior reduces the probability of that behavior being emitted in the future. Examples of punishment are also easy to think of, such as when a football team is penalized a certain number of yards on the field when a player is off-sides, or when a teen is grounded for staying out too late. In contrast, negative reinforcement occurs when performance of a certain action results an aversive outcome being avoided or removed. A good example is taking a pain medication (e.g., an aspirin) to make a headache go away: The action is swallowing the pill, the positive result (reinforcement) is the elimination of the pain. Note that it is the removal of the aversive consequence which results in (using Thorndike term), a satisfactory state of affairs; but again Skinner would avoid such a value-laden term.

Like the philosopher John Locke (per Chapter 3), Skinner believed that the most effective way to control or shape behavior was through reinforcement, especially positive reinforcement. For Skinner aversive conditioning or punishment should be reserved for short-term, temporary use, and only then when no other effective method is available. For example, it is not easy to teach a young child not to dash into the street, a behavior which is extremely dangerous. A parent might resort to a quick swat to the behind to discourage this behavior (the punishment) rather than attempt to explain to the child why this behavior is dangerous when such an explanation is beyond the child’s level of comprehension.
Like Locke, Skinner recognized that punishment has many disadvantages. Although punishment suppresses behavior the cessation of the undesired behavior may just be temporary. For example, the child who is punished for aggressive behavior (hitting, biting, and so on) may continue to exhibit such behavior toward other children when adults are not present. Locke also noted that harsh punishments can result in excessive shame resulting in what today would be called low self-esteem.

Schedules of Reinforcement

A pigeon may be rewarded for pecking at a colored disk, but only after eliciting a certain number of responses (e.g., after pecking ten times). Skinner used various schedules of reinforcement to see which led to stronger or more rapid learning. This example illustrates a fixed ratio schedule, in which the bird is reinforced only after a given number of responses have occurred. By contrast, a fixed interval schedule is one in which the pigeon is rewarded for pecking, but only after a specified time interval (say 20 seconds) has elapsed. In both cases reinforcement is intermittent rather than continuous and immediate. As one might reasonably guess, learning is faster when the reinforcement is constant and immediate; however, it is generally stronger with intermittent reinforcement, and extinction is also slower in that case.

In both the fixed ratio and fixed interval schedules there is a drop-off in responding right after the reward. It is not that the animal “knows” that it isn’t going to get rewarded again right away, but rather that it has simply learned this association between delay of behavior and reinforcement. But if the reinforcement schedule is made variable this kind of drop-off can be avoided.

Variability in the schedules of reinforcement leads to two other types. In a variable ratio schedule the animal or person is rewarded after so many responses are given on the average, but with a certain degree of variability around that average. For example, the pigeon is rewarded after every 10 pecks on the average, implying that sometimes the reward will follow 8 attempts, sometimes 12 or 15, and so on. In the variable interval schedule the reinforcement
likewise comes after a certain average length of time – but not exactly on that time.

Common examples of schedules of reinforcement that people experience are shown below. (Remember that ratio always refers to the number of responses, interval refers to time).

- **Fixed ratio:** A young person works in the garment industry and is paid piecemeal, for every 100 dresses stitched.
- **Fixed interval:** A journeyman carpenter gets paid a fixed amount for each hour worked.
- **Variable ratio:** A slot machine pays off, on the average, after 20 attempts.
- **Variable interval:** A person fishing makes his or her catch only after an indefinite time interval transpires (if at all) yet keeps at this effort for several hours.

**Shaping and Modifying Behavior**

Skinner advocated the control of behavior. He believed that for the betterment of society, scientists or those policy makers informed by scientific findings, could help make the world a better place by implementing appropriate behavior controls. Skinner might thus seem something of an idealist in his lofty goals for a better, utopian society. But he was following a tradition of American socio-political progressivism that was popular in the early twentieth century, as “[b]oth the Progressives and the social scientists believed that science should serve the good of society, where good was defined primarily in terms of material comforts and success. Both groups also believed that it was possible to develop social technologies to shape human beings to serve the ends of society, as defined by an elite with access to objective knowledge of the ultimate purposes of society” (Mills, 1998, p. 19). In defense of this position Skinner wrote a novel, *Walden Two* (Skinner, 1948/2005), which describes his ideal society.

**Shaping** involves teaching complex behaviors through operant conditioning – by reinforcing successive approximations, first by rewarding gross approximations, then later by rewarding only those that are progressively closer to the final desired behavior. Skinner
used shaping to teach skills to pigeons that seemed amazing, considering this bird’s relatively small cortex – but Skinner would be the first to note that thinking was not at all a part of the process. As an example, Skinner conditioned his pigeons to make a 180 degree turn when a “TURN” sign appeared above their feeding apparatus. This can be done by first reinforcing a partial turn (say 30 degrees) when (and only when) the sign is flashed. Later the behavior is rewarded only when the pigeon extends the turn a few degrees more, and so on, until the complete turn is negotiated and the bird’s behavior is firmly shaped. To the naïve observer, the pigeon appears to be reading the sign!

The application of behavioral techniques to therapy – particularly operant conditioning – is called behavior modification. As with other forms of therapy, behavior modification attempts to help people with psychological disorders, such as phobias or the acting out behaviors that are sometimes seen in mental patients. But rather than changing people’s attitudes about themselves directly (as in cognitive therapy) or looking into a person’s medical and psychological history, the behavior therapist concentrates solely on observable behavior. The idea is to reinforce normal, healthy behaviors (e.g., calmness during crisis) and extinguish unhealthy ones (e.g., fear of flying).

One of the more interesting applications of behavior modification was in mental institutions where patients were rewarded for pro-social or helping behaviors (helping themselves or others) by awarding them tokens (plastic chits, similar to coins) whenever they performed according to expectation. Token economies were tried and found to be successful in the 1950s, before the widespread use of psychotropic drugs. As an example, a depressed patient might be rewarded for simply being active: Rising early from bed, making his/her own bed, and so forth. After collecting a number of tokens, these are redeemable for more tangible rewards, such as sweets or gift items. As advocated by Skinner, positive reinforcement is used the most, punishments only as a last resort. Behavior therapists refer to this system as a token economy. These procedures were discontinued, however, because of the ethical issues that they raised concerning basic patient rights (Comer, 2019). In other words, the
courts ruled that these patients were entitled to certain privileges that shouldn’t have to be earned by acting in conformity with the dictates of the clinicians.

Evaluating the Behavioral Approach
to Learning and Development

Early psychologists working in the tradition of learning theory from the time of Thorndike contributed enormously to the understanding of human and animal learning. But ultimately not all of the important issues in psychology could be understood through the study of overt behavior only. Behaviorism reached its zenith somewhere in the middle of the twentieth century. By the 1960s psychologists began to run out of interesting phenomena to study by observing rats in mazes or Skinner boxes. The field of psychology was getting stale. In Robert Ornstein’s (1976, p.22) accounting of his first experience of a psychology class he states:

I arrived at my psychology class with my impossibly idealistic freshman expectations: with the perspective of evolution integrated, after all, and with the scope provided by [William] James, psychology had had seventy years or so to apply the various developments in hard science to a complete science of man.

When we were all seated, our professor arose. I recall…his appearance: a man in a gray-brown suit, quite overweight, with a large nose, and short sandy hair combed forward. My very thought was that he looked like a giant rat. [He] began, “I know that many of you are here because of an interest in your experience, a desire to find out what goes on in your thoughts, to understand abnormal consciousness and schizophrenia, and because of your interest in learning about ways in which your mind can operate.

“I want to tell you that psychology as you will learn it does not consider those questions as proper subjects of scientific evidence, and how a fact becomes worthy of science.”
Save for the first part of his invocation, I would have been sure I had simply made a mistake: Had I entered the wrong room perhaps…or the wrong department? Perhaps I had entered Statistics 347B, or Introduction to Methodological Analysis 665F. For the remainder of the semester, we studied rats and taught them to do tricks which they did not want to learn and which we did not care to teach. And, gradually, my impression of my professor deepened: academic psychology was a discipline fascinated with its technical achievement, which had lost its primary focus, and was content to treat Man as if he were a Giant Rat.

If psychology went wrong during this era, where did it begin to lose its direction? Not with Thorndike – though his contribution to learning theory was enormous and entirely original (Skinner built his operant conditioning on Thorndike’s foundation). But Thorndike did not consider himself to be a strict behaviorist. His career following his early experiments with trial and error learning took many different and creative pathways.

It was Watson who initially steered the field of psychology into the path of strict behaviorism, but Skinner who picked up the theme in his classic book *The Behavior or Organisms* (Skinner, 1938). Skinner was a more eloquent spokesman for behaviorism than Watson and was also a superior scientist. By then psychology “had surrendered (without regrets) the mind to philosophy, the body to biology, and personality to the clinicians” (Robinson, 1995, p. 347).

The story of how psychology regained these lost domains is told in the next chapter.

****
For Thought and Discussion

1. A charming man met a woman in an airport café. He asked her for her phone number, which she gave. Later, after several calls to the woman who was always “too busy” to meet with him, he gave up on calling. Which learning principle describes this situation? (Hint: the same answer applies whether considering classical or operant conditioning.)

2. Your puppy wags its tail every time you put on your sweater. Why might this be?

3. If you are a parent, whose advice for child rearing do you prefer, Watson’s, “Dr. Spock,” or do you prefer relying on your own experience?

4. Why can playing the slot machine be so addictive? Explain using Skinner’s schedules of reinforcement.

5. Behavior modification has been a standard treatment for autism in children. Why do you think this is so effective?

****
Notes

3. My source for Titchenor and structuralism is Heidbreder’s (1933) classic text.
4. But it should be noted that Thorndike, at this stage of his career, was interested in animal psychology for its own sake. His later worked in many areas of psychology, including intelligence and educational psychology.
5. Unfortunately, no Nobel Prize is given for psychology or for related fields in the social sciences. Psychologists have received Nobel prizes, but mainly because their work touches on other areas, such as medicine or economics. The latest example is Daniel Kahneman, who in 2003, shared a Nobel prize in economics with Vernon L. Smith for their work on human judgment and decision making under conditions of uncertainty.
6. Watson never actually attempted to make good on his boast.
10. Bandura’s Social-Cognitive Learning Theory

In the agentic sociocognitive view, people are self-organizing, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by external events… The capacity to exercise control over one’s thought processes, motivation, affect, and action operates through the mechanism of personal agency.

— Albert Bandura

Monkey see, monkey do.

— Old saying

Learning Aggression through Observation: A Brief Introduction to Social Cognitive Learning Theory

Social Cognitive Learning Theory and Socialization Processes

Socialization refers to the processes by which people in a given society learn socially acceptable patterns of behavior. Included among these behaviors are approved forms of aggression (e.g., sports; hunting), gender-roles (i.e., which behaviors are considered appropriate for males and which for females), and forms of pro-social behavior (e.g., helping behavior; volunteerism). Among other things, social cognitive learning theory (SCLT) addresses how human learning takes place in socialization processes. In particular, a special kind of learning called observation learning takes place through observing the behavior of others who serve as models for the behavior. A very good example of observational learning comes from Albert Bandura’s studies of learned aggression in children in a now famous series of experiments involving the adult modeling of aggressive behavior directed toward a child’s toy known as a bobo doll. These experiments are described next.
An Example of Observational Learning: The Bobo Doll Studies

A bobo doll is a child’s toy. It is an inflatable clown-like figure that stands a bit taller than a small child with a base of sand to keep it weighted and standing. Knock it down and it pops right back up again. In a truly insightful series of experiments Albert Bandura and his colleagues (Bandura, 1965; Bandura & others, 1961) studied four-year olds’ aggression in response to observing adults’ treatment of this doll in a film. The adult model – a woman – repeatedly kicked, punched, and even sat on while punching, the bobo doll while repeating phrases like “pow,” “sockeroo,” and “hit him down.” The adult appeared to enjoy this seemingly harmless yet highly aggressive behavior. Three experimental conditions were as follows:

- In one of these experimental conditions (reinforcement condition) the model was verbally rewarded by another adult for this aggressive behavior and also given sweets.

- In another the adult was verbally reprimanded and called a “bully” by another adult (punishment condition).

- In a third condition the adult was neither rewarded nor punished (no consequences condition).

The interesting research question concerned what the children would do after observing the adult’s behavior when placed in the same room with the doll and other toys, but in particular, under which circumstances, if any, would they mimic or adopt the observed behavior?

The answer was that in both the reinforced and the no consequences conditions the children tended to mimic the behavior of the adult – often with great enthusiasm and creativity. But in the punishment condition, by contrast, they tended to avoid performing such aggressive behavior. Then in a follow-up experiment the children in each condition were asked if they could demonstrate the behavior of the adult, for which they would rewarded with “goodies” such as sweets. All of the children were able to mimic the adult’s
aggression when asked to do so under this condition. Note also that many of these specific forms of aggression were novel and had not been previously learned by these children just from watching the film.

These results might well have been predicted by the reader, or perhaps by almost any unbiased observer based on common sense. Yet they did not fall in line with the traditional learning theory’s (TLT) paradigm of learning by association, for the several reasons that follow.

- **Number of trials:** TLT assumes that learning requires many trials. But Bandura referred to his results as “no trial” learning because the children learned these aggressive acts without having to first perform them, even once. In observational learning behaviors are learned simply by observing another person who serves as a model for that behavior.

- **Necessity of reinforcement:** TLT assumes that learning only takes place *after* the behavior is reinforced (or rewarded). In this experiment the children were not explicitly rewarded after performing the aggressive acts; rather –

- **Role of cognition:** The children were able to *imagine* the consequences of behavior, and even mentally test them out, which are cognitive acts – Bandura called the imagined consequences *vicarious reinforcement*. But recall that behaviorists like Skinner claimed that cognition is *irrelevant* to learning.

- **Learning in the absence of performance:** Children can learn behaviors *without actually performing them*, as seen in the punishment condition, in which the children learned the behavior yet did not perform it for fear of the consequences. Proof that they really did learn these behaviors came in the second experiment, when the children were offered a reward for their performance and had no fear of punishment.

Note, too, that children in the no consequences conditions could imagine being reinforced simply by the enjoyment of performing the
aggressive acts, without having seen the adult being explicitly rewarded by another adult. They needed no extrinsic reward such as candy to motivate them.

Learning a behavior, then, does not necessarily require that a person first perform that behavior even once (much less several times), and it can be enough that a person envisions or imagines a reward (rather than actually receiving one) in order for that person to perform the behavior.

In more general terms Bandura’s experiment demonstrated that aggressive behaviors can be learned by children who merely observe someone else (a model) performing the behavior and that they may tend to perform that aggressive behavior if they are not otherwise discouraged from doing so. The implications of these finding go well beyond the Bobo doll experiment, and an understanding of these findings are crucial to parenting practices. For example, should parents allow young children to watch violent movies or television programs without adequate supervision? (Further research findings into the issues of aggression, violence, and the media will be considered later.)

It is also important to note that the children did not simply copy the model’s aggressive actions. They created their own forms of aggression as well. As an example, whereas the model used a hammer to beat the bobo doll, some children also pointed a toy gun at the doll or hit it with this gun, and also invented other means of abusing this object. In abstract modeling people learn behaviors (e.g., aggressive acts modeled by others) and make up their own new but related forms of behavior.

The Processes in Observational Learning

Observational learning was illustrated in the bobo doll studies in which children learned aggression through observation of a model. Bandura identified four processes that were requisite for such learning. These were:

1. **Attention.** It should be obvious that learning cannot take place unless the learner pays attentions to the model. Attention is partly a function of the characteristics of the learner, which include such
variables as interest in the subject and general arousal level, and also of the characteristics of the model, such as distinctiveness, attractiveness, or novelty. Bandura (1977) noted that television has a powerful attraction for both children and adults – it is very capable of drawing us in and grabbing our attention!

2. **Retention.** Learning cannot take place unless one retains (remembers) the observed situation. This ordinarily means remembering an entire sequence of actions, including mental images and possibly verbal descriptions. Young children rely more on images, so learning can often be facilitated by providing verbal cues or descriptions, as when the model in the bobo doll studies used phrases like “hit him.”

3. **Motor Reproduction.** The learner must be capable of performing the learned act. With children this is partly a function of developmental readiness. Sports heroes can make good role models for children, but if a basketball is too large for a small child to pick up then effective learning cannot take place.

4. **Motivation.** As was seen from the punishment condition in the bobo doll studies, a person can learn a behavior yet not be motivated to perform it. Motivating factors include past reinforcement (per TLT), or imagined or vicarious reinforcement (per the other two conditions).

People are social animals, and much that both children and adults learn comes from interacting with and observing others, and by making social comparisons of one’s self to others. The very fact that people can imagine the consequences of their behavior (vicarious reinforcement or punishment) speaks to the importance of cognition in human learning. But beyond this, Bandura recognized that humans can and do regulate their own behavior. They do this by monitoring (observing) their behavior, getting feedback from others, making self-judgments about how they are doing, and adapting or changing their behavior based on these self-observations, judgments, and comparisons. Indeed, the notion of the self and therefore the self-concept are central ideas in SCLT even though these concepts were ignored by TLT.
These and related concepts of SCLT are developed more fully in subsequent sections. Although Albert Bandura is not the only psychologist who has influenced SCLT (others are discussed later), he has probably done more than anyone else to advance theory in this area; hence his ideas are highlighted in this chapter.

**Bandura’s Social-Cognitive Perspective On Psychology**

**Agency and Autonomy in Human Behavior**

Per the first opening quote to this chapter Albert Bandura viewed people as proactive, self-organizing, self-regulating, and generally agentic (i.e., people are active agents in their lives, and are concerned with individualistic attainment and personal control; cf., Bakan, 1966).

Bandura’s view of human nature is thus a world apart from B. F. Skinner’s. Skinner viewed the human mind as an epiphenomenon and thought any belief in individual freedom or control illusory. The “self” to Skinner was a superfluous, meaningless concept. Yet Bandura’s training, like Skinner’s, was in learning theory, and he began his career with the notion that all human behavior could be explained by principles of learning.

**The Causes of Behavior: Associations or Anticipations?**

Bandura came to doubt the explanatory power of associationistic views on conditioning, which simply paired stimulus and response (classical conditioning) or response with reward (operant conditioning). While such associations might explain certain types of simple or rote learning, Bandura thought that simple association was insufficient as an explanation for most complex learned behavior. Instead he believed that human learning was mediated by cognition in the form of anticipation or expectation. Take, for example, a child the author knew when himself a small boy who learned to come home from play when his mother rang a large bell mounted on her back porch that could be heard all over the neighborhood. In classical conditioning terms (just as with Pavlov and his dogs) the bell could be
associated with a reward (eating) or perhaps with a punishment for not promptly returning home in response. But Bandura would no doubt say that the boy actively anticipated the thought of eating, or perhaps the fear of punishment, as consequences for his behavior. It really was thinking about the consequences that mediated his behavior. What the boy had learned was not a mere association but an expectation. Thus Bandura included cognitive elements in his psychology that were anathema to Skinner and the earlier behaviorists.

Now if one were to ask this boy why he hurried home in response to the bell he would probably say “because it’s time to eat,” or “I’ll catch heck if I don’t hurry home,” just as one might expect. In other words, the little lad probably had a very good understanding of psychological principles! To many people this explanation seems just a matter of common sense. Why, then, did earlier psychologists have such a problem with such an interpretation?

The answer may be partly because in the simplest cases people (or animals) are truly not aware of the reasons for their behavior. Perhaps Thorndike’s cats simply did learn to escape from their puzzle boxes because they built more complex response patterns on a foundation of simpler ones, without actually “anticipating” any consequences of their actions – if it can be said that a cat anticipates (and who, for that matter, can really understand the minds of cats anyway?). And perhaps the same may be said for Skinner’s pigeons, which learned the most complex behavior patterns based on, if Skinner was correct, the shaping of behavior over a long period of trials using appropriate schedules of reinforcements.

Arguably, Pavlov’s dogs and Thorndike’s cats did anticipate their future rewards. According to Raymond McCall (1983, p. 115):

There has been a widespread tendency among behaviorists to overlook the fact that the ‘conditioned response’ itself (for example the dog’s salivating in response to the ringing of the bell which has been associated with feeding) is only a small part of the total reaction, and this total reaction appears to be dominated not by the small amount of salivation involved, but by the dog’s cognition of the ringing bell as a signal of appropriate food…Just
because we have no direct experience of the dog’s awareness is little reason for us to act as though the dog was unaware, and we can only do so by elaborate pretense. From the behaviorist’s own behavior we can tell that he knows that the dog hears – a form of cognition – so why should he find it necessary to ignore or deny the obvious truth that the dog can recognize certain sounds as indicators or signals of other events, the appearance of which he then anticipates? It is certainly not a dog’s behavior that requires this pretense, since his muscular tension, his turning of his head in the direction of the bell, the cocking of his ears, all fit in nicely with signal recognition; and the small amount of salivation may itself be regarded as preparatory or anticipatory.

In other words, there is more going on in the dog than can be easily observed in just its overt behavior – some important “inner events” are present as well that correlate with the outward, observed learning pattern.

But in the author’s view there is another reason that behaviorists like Watson and Skinner did not accept such a simple and common sense explanation for human behavior. Mainly, they wanted psychology to be scientific and respectable, and took the physical sciences as a model – but especially Newtonian mechanics (which, in fact, was quickly becoming obsolete at the very time they were formulating their ideas). There was also the obvious failure of Titchener’s structuralism in attempting to deal with mental phenomena (although today psychologists see William James’s functionalistic ideas as much closer to the mark). Stimulus-response or response-reward principles provided psychology with similar mechanistic and deterministic explanations for natural events (in this case, behavior). In other words, psychology as a field suffered from “physics envy.” Viewing behavior as both mechanistic and deterministic simply made psychology seem more scientific.

SCLT and the Cognitive Revolution in Psychology

Around the end of the 1960s interest in behaviorism and traditional animal learning studies declined and the field of psychology was to change dramatically as the specialty of cognitive psychology emerged as a major force in what has come to be known as the cognitive revolution in psychology. As was the case with
behaviorism, cognitive psychology is an experimental, scientific discipline. One definition of cognition given by Ulric Neisser (1967, p. 4) is as follows: “[C]ognition refers to all the processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used.” It is not that psychology in the past ignored sensation, perception, thinking, memory, and the like, but these were not studied by the dominant behaviorist school within the academy. A related recent trend is the study of cognitive neuroscience, which studies the nervous system and the psychophysiological correlates of behavior.

Bandura himself is, of course, a pioneering figure in this revolution. His ideas have evolved considerably since his behaviorist beginnings. The conceptual framework for psychology as he currently sees it is considered next.

**Triadic Reciprocal Causation**

The phrase *triadic reciprocal causation* sounds like a mouthful but it’s not. This is, rather, a scheme for representing the scope of psychological research as Bandura saw it. Let $B$ stand for behavior, $P$ for person (and all the person’s attributes; attitudes, cognitions, perceptions, biology, and so on), and $E$ for environment – including the social milieu. Given these, it can be said that Skinner, Watson, and many of the other behaviorists ignored the person and studied the effects of the environment on behavior, i.e., $E \rightarrow B$. This was not true of all early psychological theorists, however. Kurt Levin’s model was that $B = f(P, E)$, or in other words, behavior is a function of the environment *and* the qualities of the person. But the fact that $B$ was studied as the outcome or dependent variable definitely reflects the influence of behaviorism from the time when psychology was considered *only* the study of behavior.

Bandura rightly noted that much of psychology had advanced to the interactive study of the person and environment (cf., Kurt Lewin’s, 1977, field theory) on behavior. But his range of study is much broader; behavior also influences people and environments, for instance. Various predictive schemes involving the three classes of variables are shown in Figure 10.1. Fig. 10.1a indicates the prediction of behavior from both personal and environmental factors, as some
personality and social psychological studies. In a typical experiment an individual difference variable – a trait for example – is crossed with an environmental predictor – varying the situation, for instance. In Fig. 10.1b the relationship between the personal and environmental variable is explored in a bidirectional pattern, with two-way arrows indicating the mutual influence of these two factors on one another. But the most general scheme for representing the domain of psychological discourse is given in Fig. 10.1c, in which the relationships among persons, environments, and behaviors are treated as mutually influencing one another. This is what Bandura means by the term triadic reciprocal causation. (Bandura earlier used the term *reciprocal determinism* synonymously with triadically reciprocal causation.)

Of course it isn’t likely that any given study would examine all of the possible directions. Indeed, Bandura (1999, p. 157) noted that “Efforts to verify every possible interactant simultaneously would produce experimental paralysis.” Some limited, special cases of one-way causation are:

- **P → B**: A cognitive psychologist looks at the way in which differing perceptions (person differences) mediate behavior.

- **E → P**: In social psychologist studies the ways in which environmental experiences influence attitudes (person variables).

- **P → E**: In social psychology person characteristics such as race, gender, or appearance may influence the social environment – they may elicit characteristic reactions based on prejudiced perceptions.

### Self-Regulation of Behavior

As was seen, socialization is a very important concept in CSLT. As children mature they become more socialized and increasingly they learn to regulate and control their own behavior. They become more intrinsically motivated and less dependent upon external contingencies or what Skinner would call environmental reinforcers (rewards and punishments). Put differently, people learn to reward
and punish themselves based on internal, rather than external, standards.

Bandura identified three steps in the way that people regulate their behavior:

1. First, people are self-monitors. That is, they watch themselves and observe their own behavior and they watch the reactions of others to their behavior. Part of the process of self-regulation, therefore, is self-observation.

2. A second part of self-regulation involves making judgments about ourselves by comparing our performance to social standards or to our own, internal criteria for success.

3. And third, people reward or punish themselves by making a self-response or self-reaction.

Consider a couple of examples. One is a social gathering, such as when a business puts on an annual party for its employees. Although people go to such functions to enjoy themselves, they are also aware of the impressions that they make on others – in fact this is often more true than would be the case with a group of strangers. Everyone from the boss’s wife to the executive vice president to people in the sales force, marketing department, and so forth, is motivated to make a favorable impression on their coworkers (or at least to avoid making an unfavorable impression).

Self-observation in such a situation could take many forms. For example, people in the sales force might tend to talk about clients or recent successes. A typical salesperson might wish other to know that she or he has been productive and successful, yet not to brag too much or appear too competitive. Judgments can come into play at every point in their social interactions, but perhaps on the ride home a person will think back in reflection and find cause to feel good about these encounters, or conversely, find reasons to fault him/herself. The recollection itself can provide the reward or punishment, but one may give oneself a psychological pat on the back (“Good going, Jerry”), or thinks “Wow, I really talked too much about myself. That must’ve left a bad impression! Next time maybe I should stop at one cocktail . . .” And perhaps these observations after the fact will lead to greater
success at next year’s party.

For another example, consider a shortstop on a baseball team who commits an error that causes the other team to win the game. The reader can readily construct an imaginary inner dialogue in which the player reflects on his performance then chastises himself (or perhaps finds an excuse or rationalization for the mistake). A professional player uses these observational, judgmental, and reactive processes to adjust his behavior in future circumstances.

Notice that evaluative judgments can be made comparatively, by seeing how one measure’s up to someone else’s performance, or strictly internally, where a person must measure up to her/his own personal standards. Or in fact, many performances can be judged by both criteria. As an example of a very internal evaluative process, the author knew a musician who received a rousing ovation following a performance, yet he could do nothing except rail against his own perception of being inadequate. He reasoned that the audience members were not musicians and they could not therefore appreciate how bad his performance had really been!

In Bandura’s words, “Motivation based on personal standards involves a cognitive comparison process between the standards and perceived performance attainment. The motivational effects do not stem from the standards themselves but rather from several self-reactive influences” (1999, p. 167). Foremost among these influences is Bandura’s concept of self-efficacy, considered in the next section.

**Self-Efficacy and Performance**

*Self-efficacy* refers to people’s perceptions of their competence in various areas of functioning. One can feel efficacious (having a strong sense of self-efficacy) in athletics, for example, but not in academics. A school child may believe she is “good at” history but not math, or in other words, the child has relatively high self-efficacy in the first subject but very low self-efficacy in the second. Bandura states that belief in self-efficacy motivates success in that area. Thus children who believe that they are not good spellers (as an example) won’t work as hard to achieve success in that subject. Conversely, children with high self-efficacy in an area (e.g., geography) will study even
harder to succeed in the face of failure. In short, self-efficacy, or belief about one’s capabilities in a given domain, is associated with higher motivation in that area, and therefore, greater success. Bandura believed (and research shows) that self-efficacy is a much better predictor of academic achievement than is self-esteem (or how good one feels about oneself). The lesson for parents and educators is clear. If children are motivated with a “can do” attitude in a given area they will likely succeed; if not, then they will likely fail.

Efficacy Appraisals. A person makes an efficacy appraisal whenever they reflect on their likelihood of success at a given endeavor. These appraisals lead directly to self-efficacy beliefs. Some sources of efficacy appraisals are (Bandura, 1999):

1. Actual success, or mastery experience, at some task (e.g., a test of ability to convert fractions to decimals and vice versa). In short, nothing succeeds like success!
2. Vicarious experience, or observing the success of others. (“If she can do it, so can I!”) The idea of vicarious success, of course, relates directly to Bandura’s observational learning and modeling.
3. Social persuasion, or being convinced by someone else that one can succeed. In particular the person doing the persuading can help by facilitating more than by simply cheering a person on. A teacher can do this with a class in many ways. For example, in setting a series of sub-goals by dividing a complicated task into a sequence of simpler tasks.
4. Fatigued physical state, negative emotional states, and other misinterpretations of somatic sources of information. Being tense or anxious can affect self-efficacy beliefs. Being tired can as well. One must come to understand that these states are only temporary and should not affect self-efficacy under normal circumstances.

Realistic Self-Appraisals and Self-Efficacy. Bandura stated that “In appraising situations, people who are assured in their efficacy focus on the opportunities worth pursuing rather than dwell on the risks…They take a future time perspective in
Efficacious people set realistic goals for themselves and do not set their expectations too high, which sets one up for failure; nor do they set goals so low as to be underachievers. Bigger challenges can be met by focusing on sub-goals, or smaller steps that can be achieved along the way to achieving the larger goal.

People who are self-efficacious have positive yet realistic views of their abilities. In terms of self-regulation, they tend to use self rewards much more than punishments; they celebrate their successes without dwelling on their failures.

**Collective Self-Efficacy.** Many cultural psychologists (e.g., Triandis, 1995; Markus & Kitayama, 1991) distinguish between individualistic and collectivistic cultures. Individualism, stressing independence and personal achievement is thought to characterize the United States and other Western cultures (e.g., Western Europe; Australia). Collectivist cultures emphasize interdependence and group harmony – some would say at the expense of the individual (e.g., Japan; China). But Bandura recognized that the concept of agency can apply to groups or collectives of any kind as well as to individuals. He believes that agency and self-efficacy do not oppose collectivism at all, “In fact, a high sense of personal efficacy contributes just as importantly to group-directedness. If people are to work together successfully, the members of a group have to perform their roles with a high sense of self-efficacy” (1999, p. 185). But “perceived collective efficacy is not simply the sum of the efficacy beliefs of the individual members. Rather, it is an emergent group-level property . . . The stronger the beliefs people hold about their collective capabilities, the more they achieve” (1999, p. 185).

So the lessons of self-appraisals and self-regulation can be applied to groups as well as to individuals. Consider the example of political action groups. If members hold negative beliefs (“you can’t fight City Hall”) then their lack of effectiveness becomes almost a self-fulfilling process. But a self-efficacious group – perhaps one whose members petition citizens and hold community rallies – is more likely to succeed in affecting change.
Bandura on Personality Development

Individual Uniqueness and Identity (Self) Structures

Bandura opposes the trait approach to personality, especially the five factor model (Chapter 13), which he sees as lacking in both a firm theoretical basis and in explanatory power for predicting ordinary behavior. He also opposes psychological dualism – mind and body are not separate entities. Yet he does see personality in holistic terms; he is not reductionistic as are the Freudians, Skinnerians, and some neuroscientists. Following Roger Sperry (1993) he sees thinking and choice as “emergent brain brain activities that are not ontologically reducible” (1999, p. 156). According to Bandura personality is an integrated self-system in which “People express their individuality and give structure, meaning, and purpose to their lives by acting on their beliefs about themselves, their values, personal standards, aspirations, and construals of the world around them. These multiform belief systems, self structures, and self-referent processes through which one’s ‘personality’ is manifested in its totality function in concert not isolatedly” (1999, p. 187).

Each person has a unique identity or self-structure that preserves itself over time. Part of one’s personal identity is constructed from the way in which one is viewed by others, though this is not the whole story of the person: “In keeping with the model of triadic reciprocal causation, a sense of selfhood is the product of a complex interplay of social and personal construal processes” (p. 187). On the other hand, individual identity is constantly changing throughout the lifespan. As has been seen, the concepts of agency and self-regulation figure strongly in Bandura’s view of the person. Identity formation and change is thus a complicated matter that depends on both the reflected appraisals of others and self-regulatory processes. Thus other people’s perceptions count, but so do our own self-evaluations.
Triadic Reciprocal Causation and the Nature/Nurture Dichotomy

On nature versus nurture Bandura takes a moderate position. He sees sociobiologist E. O. Wilson (1998) viewing biology as “having culture on a ‘tight leash’” (Bandura, 1999, p. 189). In Bandura’s estimation psychological evolutionists tend to see behavioral propensities (think of aggression and war, for instance) as cultural universals. Although he agrees that biology can set constraints on behavior he agrees more with Stephen J. Gould (1987b), that man is a highly adaptive species who is capable of a wide range of behavioral responses in different cultural environments. Once again his triadic reciprocal causation model allows for great flexibility, and Bandura reinforces the notion that the forces of nature and nurture are interdependent. Development of individual personalities must therefore be seen partly in terms of culture, but neither cultural context nor biological tendencies alone can account for the course of such development in a given person.

Observational Learning and Socialization Processes

Observational Learning of Gender Roles. In any culture socialization is a major part of psychosocial development. Earlier Bandura’s bobo doll experiment illustrated one aspect of socialization, namely, the learning of acceptable and unacceptable forms of aggression.

Learning of gender roles is another aspect of social development. Bandura does not dispute the notion that part of what is meant by masculinity and by femininity may be influenced by genetics, but he views the formation of gender roles as a process largely influenced by the learning of cultural norms. Thus, while men may in general be more aggressive than women, the particular forms of aggression and their acceptable expression for men and women are based on societal expectations.

Once again observation learning and modeling provide the basis for learning gender roles. Cultures specify behaviors that are acceptable and unacceptable for women and men, respectively; and what is true for one is often the reverse for the other. In many
cultures food preparation is seen as the domain of the woman. This seems to be changing in our own culture, yet it is still much more common to see a woman in the kitchen – but a man’s place seems to be at the barbeque pit. Men in our culture are not reinforced for being highly expressive, but especially with physical affection toward another male; yet such behavior is expected of women, but especially with other women and with children. In France or Russia, however, there are circumstances that permit and even demand men to be physically demonstrative toward other men.

Learning of gender roles is very much like other kinds of social cognitive learning in that rewards and punishments are provided, but these rewards and punishments are often vicarious or imagined, and self-regulation in line with social expectations also plays a part.

**Observational Learning and Morality.** Bandura sees moral development as a complex process. How a person behaves in a given situation is not a simple function of stage of development (per Kohlberg, Chapter 6). Behavior in practice does not always follow from learned principles of morality because real-life situations are complex (also see Turiel, 2006). This of course follows from Bandura’s basic model of triadic reciprocal causation, which interprets behavior as being the product of many individual factors (developmental stage being just one of these), as well as situational factors.

The complexity of moral judgments and moral behavior can be illustrated in many ways, but due to space limitations, only one is presented here. Consider SCLT and prosocial behavior (sharing, helping, or altruistic behavior). In an experiment on sharing with others conducted by Midlarsky and Bryan (1967) young girls watched an adult playing a game in which a portion of winnings were put aside for poor children (charitable condition) or put exclusively in a jar labeled “my money” (selfish condition). However, the adult model in the latter condition urged the children to put aside money for the poor, even though she did not. The children then played a game which allowed them win tokens
that could be traded for sweets and other rewards. Those in the charitable condition put aside more money for the poor children than did those in the selfish condition – which might also be termed the “do as I say, not as I do” or even “hypocritical” condition.

However, the possibilities can be more complex. A number of other experiments also illustrate the primacy of the actions (as opposed to the words) of the model; but there is additional evidence that even hypocritical behavior, in which the children are admonished to act altruistically even when the model fails to do so, has some positive effect in the long term in influencing prosocial behavior (Eisenberg, Fabes, & Spinrad, 2006; Rushton, 1975). Still, the crucial lesson in general for parents and teachers is definitely that actions speak louder than words.

Bandura versus Piaget on Cognitive Development

Piaget views cognitive development much differently than did Piaget. Bandura’s positions can be contrasted with Piaget’s as follows:

- Bandura is not, in the sense that Piaget was, a stage theorist. Though he believes that children can only grasp certain tasks at certain ages, he also believes that this reflects mainly level of maturation, which is a gradual process, rather than on attainment of a complete restructuring of cognition. For Bandura, the ability to solve conservation tasks, for example, comes mostly with age and increased brain development. Consequently,

- Piaget’s notions of accommodation and assimilation are not recognized in Bandura’s SCLT. Rather, he sees learning of schemes (e.g., gender schemes) as resulting from the influence of models in observational learning and abstract learning.

- It should also be obvious that Bandura stresses social aspects of learning whereas social interactions and observations of the behavior of others were of far less importance for Piaget. Piaget, it may be recalled, saw the child as a little logician, who learned
through interaction largely on his/her own with the environment. Bandura thought that children’s learning could be logical and rational, but they could also be irrational, depending on the model’s influence on their learning.

- Piaget believed that children were eager and natural learners who were intrinsically motivated. By contrast, Bandura thought children would not learn all they needed to know in order to be productive citizens on their own, although they might be motivated to learn in one or two areas of special interest to them. Moreover, he believed that so-called intrinsic motivation itself was not really intrinsic, but learned! By observing a model, for instance, a young person might become motivated to become a great scientist, artist, engineer, or athlete. Once the desire is present then the youngster’s motivation is spurred by the self-regulation process, including her or his efficacy appraisals. Needless to say, the educational implications of these two opposing points of view are quite different!

**Two Parts of the Same Elephant?** It is hard to argue that Bandura is strictly right and Piaget is wrong, or vice versa. Recalling the fable of the blind men and the elephant, it seems more productive to see that each theorist has hold of a different piece of the elephant. It was seen earlier (Chapter 3) that Piaget’s form of structuralism has its weaknesses: Children are not as egocentric as Piaget thought, they can learn certain concepts at an earlier age than he believed they could, and the phenomenon of horizontal décalage implies that cognitive growth can be spread out within each stage or period (as Piaget himself came to recognize). Also, the stages and periods may not be as invariant and universal as Piaget thought they were. Recall that Vygotsky (Chapter 4) first clearly demonstrated the importance of social factors in cognitive development. (Perhaps Vygotsky can be seen as a bridge between Piaget and CSLT.)

On the other hand many of Piaget’s observations, especially in very young children, argue for the crucial importance of children’s learning of very basic cognitive skills largely through
their own experimentation. Much motor and language learning is of this type, as are some more purely cognitive skills, which might be called *natural learning*, in contrast to social learning. But it is also true as Bandura implies that children are not naturally motivated to take on most school learning (the three “R’s”) but must acquire such a motivation through modeling and through the experience of self-efficacy. In other words, left on their own, children simply would not acquire the kind of education needed to succeed in today’s world.

On his part Bandura believes that “... in the field cognitive development, the bulwark of global structuralism [per Piaget] is being abandoned for more specialized cognitive competencies” (1999, p. 160). In terms of school learning Bandura (1986) argues that the skills needed to solve math problems are much more specific than those required for reading or writing; thus, he doesn’t see how Piaget’s global stages can really address these specific abilities. Yet once again it seems that the elephant of cognition can be seen from different angles – and the ways in which development progresses depend in part on the kinds of tasks the researcher examines. The many skills that come with Piaget’s formal operations, for instance, all require the ability to abstract and hypothesize – skills that are simply not available until a certain stage of cognitive readiness is reached. But yes, learning long division certainly requires an entirely different skill set than, say, written expression via essay writing. It is hard to see what these abilities, both of which are taught to children at Piaget’s concrete operational stage, have in common.

It seems that some kinds of learning can be understood best through Piagetian adaptation (accommodation and assimilation), other types through observation and modeling. And in some cases both kinds of processes may contribute. Bandura claims that using models can work in teaching Piagetian conservation skills. Two researchers, Rosenthal and Zimmerman (1972; 1978; Zimmerman & Rosenthal, 1974), found that children of five and six years can learn to solve a number of conservation problems by observing adult models, but the results were tentative with four-year olds. Piagetian theory suggests that the younger children were not
cognitively ready to handle the tasks. The older children can learn by observing a model, and Zimmerman and Rosenthal’s results do indeed suggest that Piagetians missed this point. It may in fact be that some children do learn by solitary experimentation, others by observation — but certainly readiness is an important factor in either case.

Evaluating Bandura

Traditional learning theory (TLT) and behaviorism reigned when Bandura began his career in psychology. Bandura was very interested in the psychology of learning but he believed almost from the start of his career that behaviorism overlooked the influence of social factors.

Clark Hull at Yale University, a strong advocate of TLT, became interested in reconciling learning theory with Freud’s psychoanalysis. He began a seminar of his graduate students who undertook this task. Among those attending were students who later distinguished themselves in academic psychology, including John Dollar, Neil Miller, Robert Sears, and O. Hobart Mowrer. Dollard and Miller (1950), for instance, believed that neurotic behavior could be learned — hence it could also be unlearned. They thought that much of learned behavior, including neurotic behavior, was acquired through observation. As an example of an acquired fear or phobia, think of how easy it might be for a child who observes a parent who always reacts to spiders or other large insects with fear and loathing to adopt the same responses.

In a similar way, Dollard and Miller (Miller & Dollard, 1941) began to see that children’s gender role identification with the same sex parent came about from observation coupled with rewards and punishments for appropriate or inappropriate role behavior, respectively. For example, a boy is reinforced for masculine behaviors when he imitates his father and is called “a chip off the old block.”

Bandura, studying with Kenneth Spence at the University of Iowa — Spence was a close colleague of Hull — perceived the import of this work. But it took Bandura and Walters (1963) in
their studies of aggression to show that observational learning really didn’t follow the TLT model; as was seen earlier, this learning did not require multiple trials and actual reinforcement.

While Bandura doesn’t stand alone among social-cognitive pioneers, his research – more than that of anyone else – has helped to define this perspective, and he remains its most eloquent and articulate spokesperson. Although SCLT has its roots in traditional learning theory, Bandura recognized the limiting nature of behaviorists like Watson and Skinner who wished to limited psychology to only the study of observable behavior. Bandura’s views of psychology are broader and more accommodating – and are less strident and insistent than theirs. And in an age in which grand theories of psychology are out of vogue, Bandura’s social-cognitive perspective can be seen as truly comprehensive in light of his reciprocal triadic causation, embracing as it were the nature of human beings and how they think, perceive, and learn, as well as how they grow and develop. And along with the humanists (Chapter 15) he helped put the person back into the study of personality, including his important ideas about the self (though his concept of self-efficacy differs with the Rogers and his emphasis on global self-esteem). His rational and soft-spoken style of presenting his work and ideas contrasts with, say, John B. Watson; he is not in any grandiose sense a self-promoter. Yet those who are familiar with his work do not doubt its importance and its impact on our field.

****
For Thought and Discussion

1. In Bandura’s bobo doll experiments, why did children in the “no consequences” condition act aggressively following the exposure to the model?
2. Can you relate a time you clearly observed a child learn a new behavior from simply observing another child or adult? Was the behavior in question socially acceptable, or otherwise?
3. To what extent do you think children’s observing television violence can contribute to their violent or delinquent behavior? Can you cite any examples from your own experience? What are parents’ responsibilities in monitoring children’s television viewing?
4. Try to think of a time when a negative efficacy appraisal (belief that you could not accomplish something) held you back from achieving a goal.
5. Can you recall, from your childhood, being discouraged or punished for gender-role inappropriate behavior?
6. Although not himself a stage theorist, Bandura would still agree with Piaget and Kohlberg, that children learn unselfish behavior very early in life. How would he explain this phenomenon?

****
Notes

2. I did not originate this term. I’ve seen it used by economists and biologists, as well as other psychologists, with similar intent.
Part V:

Personality and Social Development:

Ethology and Attachment Theory
12. Ethology, Sociobiology, and Evolutionary Psychology

So it came about, on a certain Whit Sunday, that, in company with my ducklings, I was wandering about, squatting and quacking, in a May-green meadow at the upper part of our garden. I was congratulating myself on the obedience and exactitude with which my ducklings came waddling after me, when I suddenly looked up and saw the garden fence framed by a row of deadly-white faces: a group of tourists was standing at the fence and staring horrified in my direction. Forgivable! For all they could see here was a big man with a beard dragging himself around the meadow, in figures of eight, glancing constantly over his shoulder and quacking – but the ducklings, the all-revealing and all-explaining ducklings were hidden in the tall spring grass from the view of the astonished crowd.

—Konrad Lorenz

If J. B. Watson had only once reared a young bird in isolation, he never would have asserted that all complicated behaviour patterns were conditioned.

—Konrad Lorenz

Ethology

“I wonder what you would think if, on a beautiful June day, you suddenly heard from the gabled roof of a high house a wild rattling noise and, looking up, you saw Satan himself, equipped with horns, tail and claws, his tongue hanging out with the heat, climbing from chimney to chimney, surrounded by a swarm of black birds making ear-splitting rattling cries…When I had finished the ringing, I saw for the first time that a large crowd of people had collected in the village street, and were looking up with expressions [that were] aghast,” stated Konrad Lorenz, the Austrian naturalist, in his popular book *King Solomon’s Ring* (Lorenz, 1952/2002, pp. 41-42). This anecdote and the one above (opening quote) illustrate some of the more embarrassing moments he experienced in the course of studying animals as close to nature as his home environment allowed. In the
latter case the young black birds were jackdaws that Lorenz had reared in his attic aviary. He feared the birds would become shy of him if he placed identifying rings on them, so to thwart this he donned a costume, which happened to be one of the devil!

**Critical Periods and Imprinted Learning**

Involving himself with birds and other creatures of the wild clearly was not typical of psychologists or other scientists of this period. While still a young man Lorenz discovered that newly hatched graylag geese followed him about as though he was their mother. Goslings have also been known to follow not just their mother or a person but even moving figures as varied as electric toy trains and boats. But Lorenz found that mallard chicks would only follow him, one behind the other, when he squatted and squawked in close imitation of their biological mothers.

Once the chicks began following him, a “parenting” responsibility he accepted with boyish enthusiasm, but also with a scientific curiosity. The tendency of water fowl to follow a mother or maternal surrogate is called the **following response**. Although this response can be observed in different species the details vary, as when, for example, the mallard chicks were more particular in whom they accepted then were the goslings, hence their behavior was **species specific**. This attachment to the mother figure is also enduring and permanent. This form of learning thus seemed “pre-programmed” into each species. **Imprinting** is the term ethologists such as Lorenz used to describe this kind of learning; in other words, the ducklings and goslings were imprinted on Lorenz once they began their following responses.

Imprinting can only occur during a brief time, or critical period after birth, and it can only occur in the presence of a **releasing stimulus** (in this case Lorenz as the mother figure provided the releasing stimulus). If this stimulus does not appear during the critical period, it was thought, the response could not be learned at all; in other words, the learning is all or none. The imprinted or following response itself is a **fixed action pattern** which characterizes all of the members of the species without variation. A releasing stimulus is
required to trigger the fixed action pattern. Notice how this stimulus (Lorenz’s movements) for goslings differed from other bird species.

For comparative psychology, imprinting is interesting because it raises the question of whether or not humans might also need to learn certain kinds of behavioral responses during critical periods of childhood. People tend to believe that humans are less dependent on instinct for their learning than other, presumably lower species in the evolutionary hierarchy. This question will be further examined in the chapter on attachment theory.

Ethology and Natural Selection

Niko Tinbergen defined ethology as the biological study of behavior (Burkhardt, 2005, p. 5). Ethologists typically (though not exclusively) study the behavior of different species in their native environs. Lorenz and Tinbergen shared the Nobel Prize in physiology or medicine, along with Karl von Frisch, for their original work in ethology. They were concerned as well on the ways in which species specific behaviors have been shaped by evolution. Ethology was thus strongly influenced by Charles Darwin whose theory of evolution stated that natural selection favored survival of the fittest members of each species in terms of their adaptability to their environments. Ethologists thought that experimental psychologists had “missed the boat” by studying animals in the laboratory where animals’ behavioral repertoire was severely restricted. How could they then realize that different species evolved so as to adapt differing kinds of instinctual behavior patterns, in each case enabling them to insure their survival?

Charles Darwin’s theory of evolution was based on a lifetime of his observing the natural world, but perhaps most significant was his voyage around the globe on the H.M.S. Beagle. The unique creatures Darwin found only on the Galapagos Islands provided him with convincing evidence that his theory was correct. Over millennia birds on different islands had evolved different beak sizes, to accord with the sizes of the seeds that were native to that environment. But he knew his conclusions would be controversial because they conflicted with biblical accounts of creation of an intact world. So unsurprisingly he waited for twenty years after initially formulating his theory to publish it, in the meantime working the theory in more
depth. He only did publish it when he learned that another researcher, Alfred Wallace, planned to publish a similar theory, so they co-published the first account. Then a year later Darwin finally published his famed *The Origin of the Species* (Darwin, 1859).

**Further Examples of Species Specific Behaviors**

Responses to releasing mechanisms, though instinctual, don’t always require a critical period to be effected. As further examples of species specific behavior, both Tinbergen and Lorenz studied the stickleback, a European species of fresh water fish, particularly with respect to aggression and mating behavior. These could be easily kept and bred in home aquariums. These fish are territorial, with each male establishing and protecting its own area for nesting and mating. The males would fight one another to defend their spaces. The male also builds the nest, and then entices the female to share his bubble nest by doing a zigzag “dance.” The male also cares for the offspring (Lorenz, 1952/2002).

In fighting with one another, Lorenz noted that the male closest to his own nest always wins the ritualized battle, which, unlike, say, the Siamese fighting fish, does not end with the death of either combatant, as the loser eventually retreats. The closer to the nesting area the stronger was the response, and vice versa. Evolution thus provided two different species, the sticklebacks and the fighting fish, with differing instinctual behavior patterns designed to insure their survival.

Tinbergen (1958; cited in P. H. Miller, 2016,p. 217) noticed that his aquarium sticklebacks became exceedingly aroused at around a certain time each day. That was when a red mail truck passed by a window, because, he reasoned, this very big “fish” had coloration matching the aroused male fish’s belly.

The characteristics of species specific behavior (Cairns, 1979) are:
1. It is stereotyped in form (has an unvaried sequence across individuals within the species).
2. It is instinctual.
3. It is universal (found in all members of the species).
4. Experience has relatively little to do with changing the behavior once it has been established.
However learning can also be a factor in acquiring species specific behaviors as infants become exposed to adult behavior. Examples include learning of bird songs that are unique to the species and territorial maps that guide migration.

**Sociobiology and Evolutionary Psychology**

“...any account of human psychological functioning that excludes evolution is ignoring an important piece of the puzzle about what it means to be human.”

—Bjorkland and Pellegrini (2002)

*The great evolutionary advantage of human beings is their ability to escape from the constraints of evolution.*

—Alison Gopnick (2009)

**Wilson and Sociobiology**

Recalling John Locke’s empiricism from earlier, he presumed that at birth the mind is a “blank slate” and that all learning came from experience. But contra Locke and later, the behaviorists, the ethologists demonstrated that this was not the case, at least with many species of birds and animals. Lloyd Morgan’s famous canon warned that, in the interest of parsimony, animal behavior should be described in as simple terms as possible, and that it was unseemly to attribute human characteristics to lower species on the evolutionary scale. But what about generalizing behaviors associated with animals to humans? In high school science classes students may have learned that “ontogeny recapitulates phylogeny,” or in other words, the development of individual traits follows from the development of lower species. So for example, at an early stage the human embryo appears “lizard like.” Does this imply the possibility of inheritance of behavior propensities as well as to physical features?

In 1975 E. O. Wilson published “Sociobiology: the New Synthesis” where he claimed as much: that, in the tradition of Darwin and the ethologists, human behavioral propensities—including social behaviors—can be inherited. In Darwinian terms, behavioral repertoires evolved through natural selection: those that increased the chances of survival of both individuals and species were retained. Both altruism and aggression, to cite just two cases, are exemplars.
This view was so radical to some scientists that it created a great controversy (previously discussed in Chapter 3; also see Allen and others, 1975). In today’s terms his work was not considered “politically correct.” Partly in defense of Wilson and sociobiology Stephen Pinker wrote his best-selling “The Blank Slate: The Modern Denial of Human Nature” (Pinker, 2002). Pinker argued that, not just the concept of the mind as a blank slate, but also the Rousseauian idea of the “noble savage” (discussed in chapter 3) were faulty in their conceptualizations.

Wilson believed that evolution favored not merely the survival of the individual but, more importantly, also of the group or “tribe.” To be more specific, sociobiology is concerned with the evolution of cultural behavior (Green & Piel, 2015). Sociobiology was strongly influenced by the work of Robert Trivers (e.g., Trivers, 1971) and William Hamilton (1964), and further advanced by Richard Dawkins (1976/1989), all of whom influenced the evolutionary psychologists (Bjorklund & Pellegrini, 2002; Buss, 2019). Evolutionary psychology has clear roots in Darwinism and evolutionary biology, ethology, and sociobiology, and in the pioneering work of those researchers just cited.

**Evolutionary Psychology**

Evolutionary psychology (EP) is the study of the ways that evolution has shaped human behavior—including social behavior—and the brain and its mental processes. According to Leda Cosmides and John Tooby (1997), our brains evolved as “wet computers” that are pre-programmed into specialized, often domain specific, modules that help us to respond in ways that are appropriate to survival of the individual and the species. But the problems our brains were programmed to solve evolved from our early ancestors are not always the same kinds of problems we face today. In other words, not all of the “programs” are ideally as suited to modern life as they were for hunter gatherers. Furthermore, behaviors which are adaptive for one species may not be so for another: a dung beetle is attracted to feces whereas humans are repelled by the odor, because the beetle lays its eggs in the dung pile whereas for people that is a place where harmful bacteria dwell. But unlike the computer, the human brain was not
designed by an engineer; rather, it evolved through the process of natural selection.

As with the psychoanalyst, for evolutionary psychologists consciousness is like an iceberg, with most mental processes found beneath the surface. But their focus is not on repressed sexual desires. What is unconscious are behavior and mental processes which are automatic. We don’t need to understand why we behave in certain ways in order for the behaviors to be adaptive; in fact, this would certainly require a lot of unnecessary circuitry, just as riding a bicycle doesn’t demand that we “think” of which muscles we should move. A couple of examples among potentially thousands of modules are a newborn’s innate ability to focus on faces and the taste we’ve developed for sweets. Sugars were needed by our ancestors but were in short supply in their times, so it is not surprising that we developed such a taste for sugars. But this propensity for craving sweets has arguably become maladaptive in our own times as such cravings can lead to obesity and other health problems. Ditto for fats and salt!

Robert (Bob) Trivers:
The Smartest Man You’ve Never Heard of? (Or the Baddest in Psychology?)

Robert Trivers, an acclaimed biologist, wrote several important papers on evolutionary psychology early in his career. One of the most original concerned reciprocal altruism; or the ways in which cooperation among species members serves to enhance the survival of others (Trivers, 1971). In a second work (Trivers, 1972) he considered mate selection, noting that females of the species tend to be choosy and focus more on quality in mate selection. For these and other works (discussed subsequently) he received the prestigious Crafoord Prize in 2007.

Trivers is a white man but he joined the Black Panthers and was close to its founder, Huey Newton, who became the godfather of one of his daughters (Bennett, 2005). “He was arrested for assault after breaking up a domestic dispute. He faced machete wielding burglars who broke into his home and stabbed one in the neck. He was
imprisoned for 10 days over a contested hotel charge. And two men once held guns to his head in a Caribbean club that doubled as a brothel” (Hutson, 2016, January, para. 2). Like a surprising number of geniuses, Trivers deals with bipolar disorder. He continues to work and write in his seventies.

Evolutionary psychology, though a young discipline, has generated a massive amount of research. Some aspects of it are more speculative than others and still subject to confirmation. It isn’t possible to review all of this research here, just some of the most salient, in the sections that follow. The ensuing discussions rely heavily on David Buss’s (2019) book, “Evolutionary Psychology, the New Science of the Mind.”

**Mating Strategies**

Although a lot of the EP research is relevant to marriage it must be noted that today fewer young people are interested in the formal commitment of wedlock, but the research on mating can apply as well to long-term committed relationships in which families still exist in a broad context: living together, sharing responsibilities in child rearing, and so forth. This caveat should be noted in evaluating the research on mating, as survival of the individual and passing on of one’s genes to future generations may still be assured in such arrangements.

In most species, including humans, females select mates that they judge to be reliable providers. This also implies that fitness is a requirement for a successful mating. In most bird species the males are more colorful than the females, and the attraction to the birds’ plumages as well as the way they exhibit in their strutting, play an important role in how they are “seen” in terms of their fitness. Although the female typically builds the nest in order to attract the male, this is not true of all species (vide the stickleback).

In humans men who are more physically attractive and perhaps athletic may be preferred, but more than that a man’s social position (status) and ability to earn plays a larger role. A man who is slightly
older, who is seen as dependable, who has qualities of kindness, relates well to children, has common interests, and is emotionally stable, seems to be the best choice (Buss, 2019, p. 104, Table 4.1).

It should surprise no one that men tend to be attracted to younger women. From an evolutionary perspective this makes sense, because younger women are more fertile and thus more likely than their older peers to produce children and carry on the species. A woman’s reproductive value declines with age. Not only physical beauty but also health is an important variable for the male in mate selection. Facial symmetry, lack of scarring, small waist-to-hip ratio, full lips, and lustrous hair are a few of the feminine features that males find attractive that seem to be culturally universal (Buss, 2019). But having more body fat is considered desirable in some cultures where food shortage is common (Sugiama, 2005). Clearly this factor is reversed in affluent Western cultures such as the United States where food resources are plentiful.

According to Buss, research shows that testosterone level in males plays an important role in mating strategy. The higher the level in a given male the more likely he is to pursue a sexual encounter with a female. From an evolutionary perspective, of course, the more such encounters the better the chances of reproducing one’s genes. But on the other hand, a male with such qualities is unlikely to be a good steady provider. If he is a father he is also less likely to be involved with the upbringing of his children. Testosterone levels typically decrease following marriage with children. High T men may be less likely to be faithful in a marriage or committed relationship. There are clearly evolutionary tradeoffs in the value of having high versus low T levels.

Online dating sites serve as one of today’s popular means for attracting dating partners. But is the motivation for people who use such services merely to have a good time, or for “hookups,” or for long-term relationships? The answer is that it depends upon the person. Men often seek short-term sexual relationships, presumably because evolution favors men having many sexual partners, whereas women, as noted, are more likely interested in long-term commitments. In our times women can feel safer about having a hookup or two due to the advent of the birth control pill and greater
acceptance of our sexual nature (thanks in part to the feminists). Yet woman on average still remain more cautious about who they will have sex with, and under what circumstances.

There are also sex differences in sexual fantasies with men having more variety of sexual activity and number of partners (often two or more) in their fantasies than do women (Buss, 1994).

Lastly, there is among males the problem of parental uncertainty. To put it bluntly, how does a man know that a child is really his? Evolutionary psychologists find this uncertainty to be the basis of male jealousy, and also partly as a source for male against male aggression: “Given an equal sex ratio, for each man who monopolizes a woman, another man is forced to be a bachelor” (Daly & Wilson, 1996, cited in Buss, 2019, p. 147). Unmarried men who are also of lower economic status are more likely to commit murder of other men, as well as other acts of aggression or violence (Buss, 2019).

**Familial Bonds**

We care for our own. It seems quite natural that parents should bond with their children. From an evolutionary point of view this is only natural for the survival of the species. Although the mother-child bond is important, so too the father has a role in caring for the child, and this is true across cultures. Grandparents also have a role in supporting the family’s children, as do aunts and uncles. The closer the relationship to the child, the more care goes into their nurturance. And this makes sense. Although a parent may care for a neighbor’s child, her own offspring take precedence. Caring for and protecting your own close family members, after all, helps insure the propagation of our “selfish genes” (Dawkins, 1982) for future generations. “Theoretically, if everything else is equal, selection will favor adaptations for helping kin in proportion to their relatedness” (Buss, 2019, p. 218). This notion is the basis for Hamilton’s (1964) inclusive fitness theory of altruism, or why we should care for others and not just our own survival.

If our genes only “care” for us as long as we can live to reproduce, why, then, do women today continue to thrive following menopause? The “grandmother hypothesis” (Lancaster & King, 1985) suggests that both grandparents live longer lives due to evolutionary forces
because they can help to care for their grandchildren, thereby helping, less directly, perhaps, to insure the continuation of their genetic endowment.

But not every child in a family necessarily gets the same degree of nurturance. Parents tend to have “favorites,” even though they may try their best to be even handed. The favored children are, according to Daly and Wilson (1995), those who are the most “fit” in terms of their survival and reproductive potentials. Hence children in a family may become rivals for their parent’s attention. (cf., Freud’s sibling rivalry, Chapter 8).

**Cooperation and Aggression**

How do cooperation and aggression, two seemingly contradictory motives, both characterize humans as well as certain other species? The answer, of course, depends upon the circumstances. Humans and other primates, and to a certain extent some other species, are social animals; and living in a social milieu requires cooperation. Complex societies require large brains. Think of the importance here of the development of language for facilitation of social relations among humans. How could we survive as a society without language skills? How else could we have advanced science, literature, and mathematics? And bigger brains also require much longer periods of infancy in order to develop, which in turn necessitates more extended periods of parental care than, say, our nearest primate relatives, the chimpanzees.

**Is Language a By-Product or an Adaptation?**

Is language a mere by-product of our larger brains? This argument has been advanced by Noam Chomsky (1991) and Steven Jay Gould (1987b). But Steven Pinker (e.g., Pinker, 1994; Pinker & Bloom, 1990) believes that language arose as a unique adaptation via natural selection. According to Buss (2019), Chomsky has “softened” on his stance, allowing for the possibility advanced by Pinker (Hauser, Chomsky, & Fitch, 2002).
But we are also tribal animals who are strongly bonded to our own groups; and tribes can be in conflict over food and territory with other tribes. Between-group competition can lead to extreme violence, such as warfare and even genocide.

But competition also arises among members of the same tribe (society). Who gets the biggest portion of the kill (or of closing a business deal)? To address such problems, rules and laws were formulated to help insure equitable sharing of resources. (Contrast the ways in which capitalism and Marxism conflict in their beliefs of how such matters of justice ought to be resolved. The first—in a democracy—pleads for the equality of opportunity [non-discrimination by race, gender, etc]. The second, for equality of outcome [“from each according to his abilities, to each according to his needs”]).

Humans and chimpanzees (or more specifically, the males) are the only species known to fight wars; chimps being our closest DNA relatives among primates. Men also overwhelmingly commit the majority of murders and the victims are also primarily other men; and this holds across all cultures (Daly & Wilson, 1988). Also, younger men are more prone to risk-taking and to violence: “Specifically, over the course of human evolutionary history, a young man seeking a wife had to display formidable physical prowess in hunting, tribal raids, tribal defense, and the ability to defend his interests. These displays were designed to impress not only women but also other men, to deter rival men from hindering the man in his quests” (Buss, 2019, p. 284).

As with Chimpanzees and baboons, our tribal hunting ancestors formed communities with hierarchies and rules. Cooperation among group members evolved to facilitate civility. Trivers (1971) extended Hamilton’s inclusive fitness theory to include not just family but also tribe. It only seems logical that survival of the species depends not only on survival of the individual and his or her family, but also survival of one’s community. But on the other hand, competition among tribes for territory and resources creates conflict, and conflict can lead to war. Humans evolved to be omnivorous, but a major part of the diets of our ancestors (before agriculture became a way of existence) consisted of meat; so the carnivorous aspects of our being
were at least at one point dominant. We evolved from “killer” apes; or in other words we are predators.

On one principal all social scientists agree: As with other primates, people are social animals. This is not merely a result of our lager brain but rather a product of continuing evolution. However, our larger brains do enable us to form more complex social bonds than other species; or even of our now extinct hominid brothers and sisters. Man is not the only animal to utilize tools, or even to fashion them; but the tools he creates are far more complex than other species. And the ability to create fire and cook his foods, and to more easily digest his food, compensate for his lack of fangs and smaller jawbones. Man is, indeed, the “naked ape” (Morris, 1967).

Would it be more correct to say that man is a toolmaker, or that he is a weapon maker? Man’s earliest tools were indeed weapons, such as axe handles, spears, and arrow heads. And consider how many modern technological developments, at least in the US, came about through funding by through the Department of Defense: the world’s largest employer.

Mankind and War:
Quotations Worth Pondering?

In his book African Genesis, Robert Ardrey, a playwright and science writer, cites the musical Westside Story as mirror on human nature:

“West Side Story is a supreme work of art for many reasons not the least of which is truthfulness. …On a stage laid bare, and in young hearts laid naked, we watch our animal legacy unfold its awful power. There is the timeless struggle over territory as lunatic in the New York streets as it is logical in our animal heritage. There is the gang, our ancestral troop. There is the rigid system of dominance among males within the gang, indistinguishable from that among baboons. There is the ceaseless individual defense of status. There is the amity-enmity code of any animal society: mercy, devotion, and sacrifice for the social partner; suspicion, antagonism, and unending hostility for the territorial neighbor. And there is the hunting primate contribution,
a dedication to the switch-blade knife as unswerving as to the antelope bone” (Ardrey, 1961, p. 290).

***

And this from Ardrey’s *The Territorial Imperative*:
“In all the rich catalogue of human hypocrisy it is difficult to find anything to compare with…the belief that people do not like war” (Ardrey, 1966, p. 260).

***

And finally, from Buss’s *Evolutionary Psychology*:
“…men appear to experience great excitement, glory, and sense of brotherhood at the prospect of war, a phenomenon that has frequently been reported by warriors…” (Buss, 2019, p. 295).

Most social scientists also agree that societies are organized in such a way that we balance amity (for members of our own group) with enmity (for “outsiders”). This also arises, according to evolutionary psychologists, from our tribal past, where competition for often scarce resources brought about competition between warring groups for territory.

Within a society, just as with the male sticklebacks and so many other species, fighting among males is primarily over territory (e.g., Ardrey, 1966; Lorenz, 1952/2002). Daly & Wilson (1985) identified a “young male syndrome” whereby young men act in risky and aggressive behaviors, as do many male mammals. This can serve to enhance a young man’s reputation as well as making him a formidable foe to other men within his peer group (Buss, 2019). Again, this is about territorial rights.

But cooperation among members within a social group also makes sense. Humans did not evolve to be helpful to one another in a vacuum, as other species—particularly primates—have also evolved to have altruistic tendencies. But Buss (2019) notes that “Reciprocal altruism can only evolve if organisms have a mechanism for detecting and avoiding cheaters” (p. 253). In their *social contract theory*
Cosmides and Tooby (1989, 1992) state five cognitive capacities required for successful cooperation among humans:

1. The ability to recognize different kinds of people (e.g., by their faces or the ways in which they walk or talk).
2. The ability to remember episodes of their interactions with specific others, or the history of those experiences.
3. The ability to make others understand your own values.
4. The ability to model the values of others. In order to do this one must be able to put oneself in another’s shoes, so to speak.
5. The ability to represent costs and benefits, independent of the particular items exchanged. “It is our general ability to represent costs and benefits of exchanges, not a specific ability tied to particular items, that has evolved in humans” (Buss, 2019, p. 254).

In summary, Buss concludes that: “…psychological mechanisms for providing benefits to nonrelatives can evolve as long as those benefits are reciprocal in the future. The most important adaptive problem the reciprocal altruist faces, however, is the threat of cheaters—people who take benefits without reciprocating at a later time” (p. 271).

**Sex and Gender**

Another issue that arises in considering the ways in which evolution has shaped us concerns differences between the sexes. This can indeed be a touchy subject. In the author’s opinion researchers differ, with some (to borrow some terminology from early perception theory) who might be called *sharpeners*—those who emphasize differences when they are found—and *levelers*—or those who tend to minimize gender differences. And here I believe that in general feminists tend to be levelers. Why? I believe this is because in the past, observing gender differences seems to have suggested that men are in some sense “superior”; for instance in spatial relations. According to evolutionary theory sexual specialization required men who were hunters to have a greater need for such abilities in order to find their ways while tracking game (e.g., Silverman & Eals, 1992)). On the other hand, women tend to be better in verbal skills (cf., the chapter on intelligence). Does it not make sense that the two sexes evolved to have separate, specialized roles in their communities?
Thus men became the hunters, who needed far-ranging game tracking abilities, and women, the child attenders, became the gatherers. (To put the gender difference controversy in perspective, gender differences are often indeed quite small or non-existent; [e.g., Spelke, 2005, on science and math] and mean statistical differences say nothing about a given individual’s capabilities.)

The preceding discussion only scratches the surface of the complexities and implications of the newer, burgeoning field of evolutionary psychology. For greater depth the reader is referred to Buss (2016), Buss (2019), as well as the other references cited above. The reader can watch for new developments, some speculative, some more solid. For instance, as this is being written one study has come to the author’s attention, and that concerns a theory that cosmic bombardment from supernovae caused a large number of forest fires which may have forced early hominids from the trees to the savannah; hence evolution favored bipedal locomotion for these folk. According to Merlott & Thomas (2019), “Evidence for increased wildfires exists in an increase in soot and carbon deposits over the relevant period.”

Implications of Evolutionary Psychology for Human Development

What is the “nature” of human nature? This question was posed earlier in this text. But by now (if you’ve read the chapters in sequence) readers probably agree with the evidence that the concept of the mind as a blank slate at birth, and of the natural innocence of mankind, have been properly debunked. It can never be stated too often that who we are is a function of both nature and nurture, and part of the “nature” aspect is that we are social animals with “natural” tendencies to be both cooperative and aggressive, depending upon circumstances. Therefore Bjorklund and Pellegrini (2002) call for a systems approach to evolutionary developmental psychology: “Developmental psychologists have—come to rephrase the nature-nurture issue, asking not “how much” of any characteristic is due to nature or nurture but rather “How do nature and nurture interact to
produce a particular pattern of development?…The developmental systems approach specifies how biological and environmental factors at multiple levels of organization transact to produce a particular pattern of ontogeny” (p. 335).

**Development of Gender Roles**

First, although all cultures have certain traditions regarding the differential roles of men and women, it is important to recognize that each is different. As an example, in many cultures women do most of the cooking and food preparation and wear facial makeup, yet men may do the barbequing. As another, in some cultures men paint their faces, dress in bright costumes, and do elaborate ceremonial dancing.

Gender roles are learned very early in life, as either they are taught outright or modeled by adults. But the fact that there are evolved gender role differences can be traced back to our ancient ancestors in which, as previously mentioned, men were hunters and women the gatherers. Some obvious examples are sex differences in aggression, mating strategies, and child care. As a consequence, in general boys enjoy rough-and-tumble play whereas girls seem to enjoy dolls and “playing house” (Bjorkland & Pellegrini, 2002). Boys, it seems, evolved such aggressive play from our ancestor hunters and fighters; girls because they were the primary caregivers to their children. Naturally, there are exceptions, and developmental psychologists today encourage parents to accommodate their child’s own natural proclivities, rather than force them into pre-conceived roles.

**Length of Time for Maturity**

Children take much longer to develop throughout childhood than do our primate cousins, or any other species for that matter. With our large brains there is much more that needs to be learned: “It was the confluence of a large brain, social complexity, and an extended juvenile period that set the stage for the modern human mind” (Bjorklund & Pellegrini, 2002, p. 337). So of course, parenting has become almost an occupation in itself. When considering marriage and raising children adults should consider what an enormous investment in time and energy they must be prepared to take on.
Adaptations in Children not Designed for Adult Preparation

Play, including role imitation, serves an important function in preparing children for adult life. However, play may also have evolved as an essential mechanism for adjusting to childhood itself: “Play provides exercise and knowledge of one’s current environment and serves as a safe venue for establishing a social hierarchy and learning ‘one’s place’ in the cohort” (Bjorkland & Pellegrini, 2002, p. 339). Learning of social roles beyond gender is also facilitated in children’s play. In other words play aids in some ways to insure the survival and health of the child during development. As does infant facial imitation according to Bjorklund (1987); which, in this form, later disappears. But at this stage of ontogeny it can help cement mother-child bonding.

Cooperation and Aggression

That children learn to cooperate, as suggested by evolutionary theory, is not at all a new finding. Neither is the observation that boys are more aggressive in their play than are girls. But the natural implications for the tendency for nations to engage in warfare may seem more shocking. From this knowledge people may come to learn enough about our own nature to better adjust to a global (as opposed to tribal) world; and just perhaps learn to apply more cooperation on a global level.

The Self Redux

In the start of the section on the self—in the section on Jung—the nature of the self was discussed, highlighting especially the work of William James. Now with their work on evolution and the brain, Cosmides and Tooby tell us that our behaviors are largely determined by domain specific modules that evolved over the eons. If that is so, then what of the self?

The philosopher David Hume did not believe that people have “selves;” whenever he tried to observe something specific in his mind he found only fleeting, impermanent perceptions. Daniel
Dennett (1991) even denies the existence of consciousness. This is in contrast to James, who observed his “stream of consciousness.” To reiterate, James described both self as an object (i.e., all that we identify with as “ours”) and self as a subject (i.e., the “experiencing” or “Knowing” self).

Antonio Damasio in his book “Self Comes to Mind: Constructing the Conscious Brain” (2010) was strongly influenced by James. First, Damasio is a monist (there is no mind or consciousness separate from the body). Second, he does take an evolutionary perspective to the problem of mind and self. He does not relegate consciousness entirely to the cerebral cortex, but stresses the role of the “humble” brain stem as well. Along with this, he believes that consciousness is not possible without feelings. His discussion of brain physiology and the experience of “qualia” cannot be simply summarized here, but he states that “There is indeed a self, but it is a process, not a thing and the process is present at all times when we are presumed to be conscious” (p. 8). But his main conclusion is that the brain evolved to create a conscious mind, and the self.

Mind, consciousness, self: Does Damasio’s account in any way invalidate Cosmides and Tooby’s views of their domain specific automatic patterns of responding? Not at all, but it does enrich them.
For Thought and Discussion

1. Have you ever kept small animals or fish you collected from nature in a home aquarium or terrarium? If so, share your experiences in observing them.
2. How does an evolutionary psychologist’s view of the unconscious mind differ from the psychoanalysts?
3. Do you have any experience with online dating (that you are willing to discuss with others)?
4. What is your view of human nature? Do you really believe Ardrey, that people “like” war?
5. If you live in a mixed marriage family, along with siblings who are half brothers or sisters, what kinds of experiences would you consider sharing?
6. If you have children, can you relate how they cooperate or compete in your household?
7. If you’ve lived in a group facility such as a dorm, can you share your experiences of cooperation versus conflict?

****
Notes

3. In formulating his theory of socialism, Marx bought into the Romantic Fallacy—he believed that our hunter gatherers lived in that sort of society. The situation with these ancestors, however, was much more complex.

****
Part V:

Personality and Social Development:

Ethology and Attachment Theory
13. Attachment Theory and Related Research
On Mother-Child Bonding:
Bowlby, Ainsworth, and Harlow

A child’s greatest psychological needs are for constancy and intimacy.
—Richard Mosier

It should not hurt to be a child.
—Popular slogan

Earlier in the text saw the critical importance of infancy in the child’s emotional development through the lens of psychoanalysis (Freud and Erikson), including certain parenting practices that are detrimental to child development (e.g., severe toilet training). But what about continuing patterns of neglect or abuse? Nadine Burke Harris is California’s first Attorney General (Loudenback, 2019). Her important work on adverse childhood experiences (ACEs; Harris, 2019) has inspired new lines of research and treatment into this thorny, often unrecognized problem, which, in certain economically deprived populations reaches epidemic proportions; yet is it also more widely spread in the general population than is ordinarily imagined. ACEs children are characterized by a history of verbal, physical, or sexual abuse, abject neglect, or drug, alcohol, or mental health problems of the parents. As adults these children experience mental and physical health issues; including a greater propensity for cancer, heart disease, pulmonary problems, suicide ideation, and early deaths.

Attachment theory relates to the ways in which early child-parent bonding affects later personality, including personality disorders. The theory began with John Bowlby, a psychoanalyst, who was open to ideas from other areas of psychology. “The theory naturally spans several usually separate areas of psychology; personality, social, developmental, clinical, and comparative” (Fraley & Shaver, 2008, p. 536). Ethology in particular stimulated Bowlby’s theorizing.
Bowlby’s Attachment Theory

Bowlby and Orphaned Children

John Bowlby’s, early work (1950/1995) for the World Health organization recognized the deplorable conditions of not only orphaned, but also homeless children in Europe following World War II. He studied the effects of these conditions on development. Bowlby, a British physician trained in psychoanalysis, stressed the importance of parental—but especially maternal—attachment to her children. Children of such neglect have problems forming appropriate attachments to others. They lacked the ability to love, and to be loved.

Attachment theory has its roots in ethology and evolutionary psychology. It is concerned with the emotional bond formed between an infant and its caregivers, but most especially to the mother. Children evolved to be “cute” in order to attract the attention of others, so smiling as well as crying aid in this endeavor. As with Lorenz’s goslings, there appears to be a critical period during which children learn to bond with their parents. Bowlby noted that toddlers will follow their mothers, paralleling that of the geese, although he was reluctant to label this “instinctual” behavior. They also experience stress when the mother or mother figure leaves them. This bonding is what is called infantile attachment. Laura Berk (2004) puts this nicely: “Watch babies of this age [infancy] and notice how they single out their parents for special attention. For example, when the mother enters the room, the baby breaks into a broad, friendly smile. When she picks him up, he pats her face, explores her hair, and snuggles against her. When he feels anxious or afraid, he crawls into her lap and clings closely (p. 185).” Note the role of mutual affection that is present in such bonding.

Bowlby believed that evolution played a part in this tendency to bond. Hunter-gatherers had a semi-nomadic existence in which they needed to move about in search of game and foraged food. And children of course had to be taken along with the adults. Attachment behavior insured that the children were never too far from their parents during such travels. For the child’s part, she needed to stay close to the mother; otherwise she would make an easy target for predators. So just as with chicks and goslings—and for the same
reasons according to Bowlby (1969)—the child learned to follow, or stay close, to the mother.

Assuming Bowlby was correct, is there sill reason enough for toddlers’ needs to stay close to Mom today? True, predators are not in abundance in our current environments, but who’s to protect the child from himself or from others; from the hot stove or the open window; the older sib, or the aggressive dog next door? Or from the well-meaning (or not so well-meaning) stranger?

**Bowlby’s (1969) Four Stages of Infantile Attachment**

Newborns for the first few months of life attend to the sight of human faces or the sound of their voices by moving their heads in the direction of the stimulus. This appears to be an inborn trait, which characterizes the *preattachment phase*, so called because the child has not yet bonded with mother or others. Yet the infant practices instinctual *signaling behavior*. Aside from smiling, they babble, reflexively grasp fingers and breasts, laugh, pout, and cry; all ways of signaling their needs to the mother.

After about six weeks they begin to exhibit a “*social smile*” in response to human faces. For approximately the next six months, during this *attachment-in-the-making* phase the child learns to focus on familiar faces and reacts with pleasure at their sight.

The next phase lasts for about the first three years, in which *true or clear-cut attachment* bonds are formed. During this time the young child experiences *separation anxiety* when the attachment figure is absent. There is a fear, whether conscious or unconscious, of being abandoned. This fear, too, is surely rooted in evolution, for the child at this age depends so much on the support and presence of its parents, who provide a *secure base*, allowing the child to wander and explore, knowing that the parent is never too far away. The infant now smiles mainly at familiar faces, accompanied by a *fear reaction to strangers*, which begins take place at around seven months.

In the fourth stage from about three years until the ending of childhood, under normal circumstances, the child begins to trust more when the caregivers are absent. The development of language helps to facilitate this understanding, as the parents are able to reassure the child that their absence is temporary and that they will return in due
course. This stage is one of partnership or reciprocal relationship between the parent and child.

**Homeostasis in a Broad Context: Stability vs. Thriving?**

If you took a basic biology course you are probably familiar with homeostasis. This refers to the body’s regulation of its own functioning. The analogy is often given of a rheostat for temperature control: too hot, turn on the cooler; too cold, switch the heater on. So it is that we eat when hungry, drink when thirsty, and so forth, but with little or no conscious thought about our needs and deeds. Our nervous systems, as well as our hormonal systems, do much of the regulating without any conscious awareness on our part at all.

Antonio Damasio (2019) has a broader view. He sees homeostasis not as stasis or balance “…but to a state in which the operations of life felt as if they were upgraded to well-being (p. 49).” For him the goal of homeostasis is not merely stability, but flourishing. This expanded view requires some conscious goal-setting. In Damasio’s view, culture itself is a form of homeostatic striving. Our feelings (feelings are stressed in Damasio’s theorizing) help us to identify our needs, and thus can direct our actions. And as social beings, we can foresee future needs, and therefore self-regulate in order to meet them. Tribes and later, whole societies, were formed on such a basis according to Damasio.

Given this framework it seems clear that children have not merely needs derived from deficiency, but also needs to thrive and flourish. The wise parent understands this implicitly.

Normal or secure attachment develops during his stages. In the third, when the child forms a strong and lasting bond with the mother or other primary care giver, she learns to depend on this bonding in order to feel safe and secure. But not all development proceeds normally, as Bowlby observed in his European study.
Ainsworth and Attachment Disorders

Mary Ainsworth was a protégé of John Bowlby who continued his work in attachment theory. His notion of separation anxiety played a major role in her psychology. Ainsworth considers three types of insecure attachment, based on her observations of children in her *strange situation* experiments. This ingenious methodology works as follows (Ainsworth and others, 1978; Berk, 2004) as a series of eight episodes.

First, the observer places mother and child in a room, then leaves. Next, the mother seats herself in a chair while the child plays with any of several toys surrounding her (“parent as a secure base”). Third (“reaction to an unfamiliar figure”), a stranger enters the room, takes a seat, and enters a conversation with the mother.

Fourth, the mother leaves the room and the stranger attempts to relate to the infant (“separation anxiety” is noted). Fifth, the mother returns and the stranger departs (“reaction to reunion” is observed). Sixth, the parent again departs (“separation anxiety” is again observed). Seventh, the stranger reappears and tries to give the child comfort (“ability to be reassured by stranger” is observed). And eighth, the mother returns and tries to comfort the baby, offer toys for her to play with, etc. (“reaction to reunion” is again observed).

So, what do these observations of the child’s behavior tell us? How well can we now assess the child’s security of attachment to the mother?

The *securely attached* child may experience distress when the mother leaves. She displays distress and may or may not cry, but she seeks contact comfort when the mother returns. But for children with attachment problems the pattern may be different, as follows:

1. **Anxious-avoidant attachment.** The avoidant child has learned that she cannot trust the parent to provide for her need for succorance. She fails to seek warmth from the mother-figure; she doesn’t cling, and is not particularly distressed by her absence. The child is not distressed by the presence of strangers, but may instead be indifferent to them, as well as to her mother’s return after some absence.
Alison Gopnik (2009, pp. 181-182; emphasis added) characterizes the avoidant child this way:

Some avoidant babies actively avoid interacting with the caregiver both when she leaves and when she returns. Rather than crying or celebrating, these babies simply look at their toys with extrastudious interest. You might think that these babies are simply less distressed than the secure babies. But it turns out that if you measure the heart rate during the separation the physiological signs indicate that inside the babies are miserable—*one of the saddest research findings I know*. These babies do notice that the caregivers are gone and are unhappy as a result, but they seem to have learned that expressing that unhappiness just makes things worse. They’ve learned that crying is more likely to lead to misery than to comfort, and so even at this very early stage they’ve learned to tamp down their emotions express them.

2. **Anxious-resistant attachment.** The child may be clingy and becomes angry when left alone. She may fail to explore the room and the toys. When the mother returns she is not easily comforted. She may aggressively act out by resisting or hitting the mother as “punishment” for her abandonment.

Still other “anxious” babies not only become very distressed when a caregiver leaves—they are also inconsolable when she returns. Instead of a quick return to calm happiness they continue to cling and cry to their caregivers. They may get mad, too, throwing away their toys and crying angrily at Mom even as they cling to her (p. 182).

3. **Disorganized-disoriented attachment.** This catch-all category includes children who are maladjusted, but who do not fit into the other categories of insecure attachment. Perhaps confused is an apt adjective for these children, who are clearly not securely attached but whose behaviors are inconsistent from moment to moment. For example, such a child may cry in one instance and appear detached or
depressed in another. Possibly some of these children suffered not merely neglect, but also abuse.

“Disorganized” babies are the worst off. These babies never develop a consistent set of expectations at all. Instead they veer unpredictably from one pattern of behavior to another. These babies are particularly vulnerable to later problems and difficulties (p. 183).

About 65 percent of US children are securely attached. About another 20 percent are avoidant, 15 percent are resistant, and 5-10 percent are disorganized (Berk, 2004). But attachment doesn’t cease with childhood; rather it is an ongoing process that extends through the lifespan (Ainsworth and others, 1978). As will be seen next, attachment styles formed in childhood can affect the way adults relate to one another later on in life.

### Attachment Style versus Temperament

Children are born with different temperamental dispositions, as was discussed in the chapter on traits. Could it be, as some have speculated, that attachment styles are merely another way of describing temperament? According to Fraley and Shaver (2008, p. 521), “…most studies that have examined measures of temperament and attachment classifications have found weak or inconsistent associations between them…” and that (p. 522) “…attachment classifications are not simply and alternative way of measuring temperament”; so they claim that these are indeed distinct phenomena.

However, Kagan and Fox (2006) state that “There is a lively controversy surrounding the contribution of inhibited of uninhibited temperaments to a child’s reactions in the Ainsworth Strange Situation and, therefore, to the classifications of secure or insecure attachment (Connell & Thompson, 1966)”, p. 210), and “…the empirical overlap between these behavioral domains [attachment
theory versus studies of temperament] is greater than might be anticipated” (p. 211). As is often the case in social science, further research on this controversy, particularly in terms of possible interactions between temperament and attachment style, appears to be needed. Also, more research into caregivers’ personalities and cultural differences in child rearing and their effects on attachment style could benefit from further study.

**Attachment Styles in Adulthood: Evaluating the Theory from the Standpoint of Development.**

How does a child’s attachment style influence adult development? Two opposing tracts have been studied: the positive and negative effects of secure versus insecure attachment. It seems useful here to look ahead toward some of the concepts from humanism (Chapter 16) concerning parents’ granting of conditional versus unconditional positive regard toward their children. On the positive side, Fraley and Shaver state ‘Research supports the claim that secure individuals are more likely to exhibit all of Rogers’s (1961) defining features of the “fully functioning person”: openness to experience, existential living, organismic trust, experiential freedom, and creativity’ (p. 535); and so on with generally positive individual and relational traits, including Maslow’s “B-perception.” These conclusions are gleaned from research by Mikulincer and Shaver (e.g., 2005), and others. Those who have experienced negative attachment styles, on the other hand, tend to remain insecure, with the associated consequences, such as inability to form close personal relationships, self-doubt, and in general with negative personality traits (psychopathology). Optimistically they Fraley and Shaver see attachment theory as:

In short, attachment theory offers a means to conceptualize a number of the qualities that have been emphasized in classical and contemporary research on personal adjustment and self-actualization. The theory does so within the same framework that is used to understand potential disorders of personality, thereby allowing the functional and dynamic aspects of personality
functioning to be understood *with a single set of concepts* (p. 536; emphasis added).

From the above quotation it seems to me that these writers are attempting to stretch their theory to do a little too much work. Granted, they are not claiming that secure attachment *guarantees* a well-adjusted adulthood; only that it may help to facilitate such an outcome, particularly when secure adults are contrasted with insecure ones. But their summary of the work of Bowlby and Ainsworth certainly is sound. This work stands the test of time: secure and insecure attachment styles have “securely” found their place in contemporary psychology by generating vast amounts of research (mostly) confirming the arguments and predictions of the attachment theorists.

---

### Effects of Child Neglect: The “Still Face” Experiments

What would your 2½ year child do if you placed her in a high chair, played with her, showed her lots of affection, and then for a period of three minutes or so you just looked ahead with a straight, expressionless face?

Edward Tronic and his colleagues (1975) tried such an experiment and the results were remarkable—and disturbing. The distress reactions of the child were heartbreaking. The baby becomes restless in attempting to attract the adult’s attention, but becomes increasingly upset resulting in crying, perhaps a tantrum. The child’s heart rate increases as does production of the stress hormone cortisol. The implications for child development and parenting are clear enough!

---

**Harry Harlow**

Unlike Bowlby and Ainsworth, Harry Harlow was a comparative (animal) experimental psychologist. He may seem a little out of place at this point in the text because he was not particularly interested in
ethology or evolution, but rather, he studied animals (rhesus monkeys) in a lab setting. However, his work is important for its influence on mother-child attachment and bonding, and especially on the problems of parental neglect on child development; albeit in monkeys rather than humans. But his results are easily generalizable.

Harlow’s (e.g., Harlow & Zimmerman, 1959) experiments involved separating young monkeys at birth, then studying their development under varying conditions of deprivation. While his work was considered very important in the history of psychology it was also, by today’s standards, quite unethical—some conditions were even cruel, such as raising some of these infant primates in total darkness and isolation.

His most important work, however, involved studying “love” or what should more precisely be called attachment. He referred to this as phenomenon as “contact comfort.”

Ingeniously, he created two artificial mother surrogates made of cloth, wire, and simulated monkey faces. The wire “mothers” had bottles for nursing attached to their breasts, and so they were the ones who supplied nutrition. Cloth mothers, however, provided warmth. When exposed to a frightful “fear stimulus” the infant monkeys invariably retreated to the comfort of the cloth mothers, clinging tightly to them. They only went to the cloth mothers for feeding. Thus he demonstrated that childhood attachment was not a function of physiological need, but rather something more fundamental.

In other studies he showed that, similar to the Bowlby-Ainsworth results, infant monkeys who were totally separated from either a real or a cloth mother became neurotic and unsociable. As parents themselves they could be abusive and cruel, even to the extent of crushing their baby’s skulls or biting off their toes (Blum, 2002). But what might this suggest to us about human abusive parents?

Part of the context for Harlow’s work was to demonstrate the problems inherent in the then popular behaviorist movement. Remember (Chapter 10 on learning theory) that Skinner and other did not believe that there was any place for emotion or cognition in psychology. And also there was Watson’s injunction, not to “spoil” children with excessive cuddling, not to be mawkish and sentimental, etc. Freud also thought cuddling to be narcissistic and unnecessary.
Cleary after Harlow, Bowlby, and Ainsworth, love (attachment) could no longer be overlooked in our field as a crucial variable in human development. Babies, whether human or otherwise mammalian, require more than milk to thrive. Oddly, in the thirties, many people in the US (partly under the influence of psychologists such as Watson) came to believe “spare the rod, spoil the child” ought to be their guiding principle. Fortunately, Harlow set out to prove them wrong.

“Love at Goon Park: Harry Harlow and the Science of Affection”

This book, a best seller in its time, was written by Deborah Blum (2002), a Pulitzer Prize winning science writer. Harlow’s lab address was 600 N. Park, which when handwritten was sometime mistaken for “Goon Park,” hence the title of the biography.

The book is a difficult read, especially when encountering the worst cruelties Harlow exposed his monkeys to. Yet he felt redeemed by his results; harming a few monkeys psychologically, he thought, justified the knowledge gained that could be applied to our own species.

According to Blum, Harlow himself was unfortunately a damaged man; a drinker, and a poor parent, at least with his first family. He offended feminists, too, by insisting the mother’s place was in the home, taking care of their children. Perhaps we can see how his own experimental results helped him to reach this conclusion.

However, he remains a seminal figure in the history of psychology whose work, though it could not be performed today, forever altered our field.
If attachment to a maternal figure is so crucial to a child’s developing personality, what happens when both parents or the mother or father in a single parent family, work outside the home?

Today this model of family life prevails in much of Western societies. In the mid-20th century the most common practice for a two-parent family was to have a bread-winning father and a stay-at-home mother, who attended to the growing children’s needs. But today for many families having both parents working has become an economic necessity. This means separation from the children at increasingly early ages. So either a surrogate parent (sometimes a grandparent) steps in or is hired, or the child is sent to a pre-school or daycare center while the parents are away at work. It is also increasingly common to find some families with a stay-at-home Dad who tends the housework and cares for the children. So how do these changing scenarios affect the child’s attachment needs?

My, How Families Have Changed!

Sometimes we may hear notes of nostalgia about the “good old days.” If you are a senior citizen you may recall them, fondly or otherwise, in the ways family life was presented in TV sitcoms from the 1950s. Examples include “The Adventures of Ozzie and Harriet,” “Father Knows Best,” “The Donna Reed Show,” and “Leave it to Beaver.” These all-American families were White and middle class. Father was the bread-winner and head of the household. His word was law (except when the rest of the family members found ways of circumventing him). The wife was responsible for housekeeping and raising the children. TV ads promoted sleek, modern appliances to make life easier and happier for “the little woman,” who perhaps greeted the kids when they came home from school with cookies and milk. Families with two working parents? This was unthinkable—and in that era it was un-American.

Problems in these shows were always situational: that annoying neighbor who wouldn’t return the tools; the car that needed
maintenance; those “bad hair” days, and so forth. Never themes about problems of alcohol or drugs, juvenile delinquency, or God forbid, mass shootings! Instead people lived carefree lives of suburban splendor, with a happy ending for each and every episode.

Today’s family situations feature minorities as well as White people, with themes ranging from single parenting and divorce, gay and lesbian romance, to student protests to whatever might be happening in the news. This is not to deny that some shows still promote “politically correct” cultural propaganda. But at least they have varied the venue to reflect some newer realities of everyday life. The “good old days” never existed except in fantasy land. So how realistic are today’s features? We may not know until the next generation arrives to tell us.

Role of the Father and Others

By tradition people think of the child’s mother as the primary care giver. But (with the possible exception of breast feeding) the child may, and often does, form equally strong bonds with the father. But in the US and in many other cultures, fathers tend to relate more playfully, even in a rough-and-tumble manner, with babies; whereas mothers are more likely to attend to physical needs and affection sharing (e.g., Lamb, 1987). As usual, however, averages do not speak to individuals, and it is not a good idea to stereotype fathers or mothers “across the board.” Bowlby (1969) himself recognized that infants may form multiple attachments to others, such as grandparents and siblings, as well to the mother.

Day Care and Pre-school

At an appropriate time (this various according to the child’s developmental level, including social skills—as well the possible need for both parents to work) pre-school or day care may take up a large part of the child’s day. It is imperative that parents be thoroughly familiar with the facility in which they place their child. They should get to known the owners, teachers, and volunteers, and their philosophy of child care, for abuse in such facilities is not unheard of. A really good facility with a knowledgeable working staff
can be a gold mine for both parents and children. Look for proper accreditation. In the US this could be the National Academy of Early Childhood Programs, or the National Association for Family Child Care (Berk, 2004). Of course word of mouth from other parents you know and trust can be a factor too.
For Thought and Discussion

1. Do you have a family of your own, with children? Consider sharing your experiences with the class regarding their attachment to you and others.

2. How has TV and the movies affected you and your family when growing up? Or today? Think primarily about how the role of families are or were portrayed.

3. This is a tough one: did you as a child experience parental abuse or having been abused by any other adults? If so, do you care to share your experience(s) with the class?

4. If you have very young children, can you share something about their temperaments (e.g., anxious, relaxed, aggressive, etc.)? If you have more than one child, how do they differ temperamentally?

****
Notes

2. Here is a link that demonstrates the Tronick “Still Face” experiment:
   Warning: You may find this video disturbing!

   ****
Part VI:

Traits, Types, and Temperament Perspective
...for my part I venture the opinion that all of the infrahuman vertebrates in the world differ less from one another in psychological functioning and in complexity organization than one human being does from any other.

–Gordon Allport

...the trouble with traits is that there are too many of them!

...The answer to this problem...is a statistical method called factor analysis.

–Raymond B. Cattell

Gordon Allport’s Psychology of the Individual

What’s in a (Trait) Name?

Grumpy, Bashful and Happy were three of the seven dwarves whose names also summarized their dominant personality traits. In life, there are probably few people who are so one-dimensional, but occasionally one does find an individual who exhibits some particular trait that makes him or her stand out in an exceptional way. Following are a few examples of such purported dominant traits in well-known historical figures.

Most readers will know immediately that Ronald Reagan was known as the “great communicator,” and that Lincoln was nicknamed “Honest Abe.” Former president Harry Truman was nicknamed “give-‘em-Hell Harry.” George Washington was known for his honesty and integrity. The legendary Don Juan was a “seducer,” or indeed, himself a “Don Juan,” as the term derived from his very name has come to mean. Similarly, “sadism” was derived from the name of the Marquis de Sade, who had a rather peculiar fascination with that subject. Another historical character whose name became an adjective
was Nicolo Machiavelli (as in “Machiavellian,” or given to the use of power and expediency).

Allport’s Dispositional Perspective

Gordon Allport (1961) claimed that very few people can be described well by a single characteristic, which he referred to as a cardinal disposition. However, most people can be described by a relatively small number of central dispositions (perhaps 5 to 10), which characterize their personalities in terms of characteristic reactions and behaviors that most of their acquaintances immediately recognize (e.g., thrifty, compulsive, ironic, hard-working, level-headed, flighty, big-hearted). Allport also recognized that people aren’t always consistent and predictable (far from it!), so he noted as well that people can be categorized by a larger number of secondary dispositions which are somewhat less consistent, but nonetheless, can be applied in particular situations. Thus, a studious introvert may ordinarily be arduous and intense (central traits) but might occasionally be magnanimous and exuberant (secondary traits) – not necessarily a “bookworm” in every situation. (See Susan Cain, 2013, “The Power of Introverts in a World that Can’t Stop Talking, for a more positive view of introverted people.)

Cardinal Traits as Media Labels:
Do They Reflect Subtle Biases?

Winston Churchill was known for his “iron-will,” but British Prime Minister Margaret Thatcher was nicknamed the “iron lady.” Marilyn Monroe was a talented actress – probably more so than is sometimes recognized – but like it or not, the term “sex goddess” resonates with many people of her era as an apt descriptor of Monroe.

Reflecting on these adjectives, the reader might ask: (a) Was Thatcher’s trait “label” more derisive than Churchill’s, and if so, was this deserved? Why or why not? (b) Was Monroe accurately described as a “sex goddess”? If you have any knowledge of her
background, would you suggest the same or a different name for her cardinal trait?

To what extent were these (and other) traits created or perpetuated by the individuals themselves, and to what extent by the public or by the media? Can you think of any examples where politicians have deliberately placed a label on an opponent where that label has come to be permanently (and perhaps unfortunately) associated with that person? If so, does this label truly represent a cardinal trait? To what extent do labels prevent a deeper understanding of the personalities of the individuals involved?

Allport (1961) also distinguished between common traits, which characterize most people (and can be often be found as descriptors in fortune cookies), such as “ambitious,” “pleasant,” or “helpful,” from what he called personal dispositions. He preferred the latter term to personal traits because a disposition represents a characteristic that is relatively stable and enduring, and predisposes a person to act in accordance with that characteristic. In other words, personal dispositions not only describe an individual’s personality; they represent behavioral tendencies as well – and they are peculiar to that individual. Personal dispositions can be placed on a continuum, ranging in salience from cardinal (rare in most people) to central to secondary dispositions. Personal dispositions also differ from personal habits (e.g., always starting the day with a cup of black coffee) in that dispositions are more generalizable than habits, the latter referring to very specific behaviors in rather specific situations.

A Psychology Focused on the Person

Allport believed in the uniqueness of each individual, and unlike most psychologists, he advocated the in depth study of individual persons. Each person’s combination of personal dispositions, including the ways in which these are organized and how they interact with one another, formed a unique pattern of individuality: It is absolutely true that no two people are alike. Allport thus believed that the psychology of “Sue Smith” or “Bob Bates” was worth knowing.
The study of individual lives over time appealed to Allport (e.g., 1962). He used the term *morphogenetic* to describe this kind of research on individuals, and contrasted this approach to the usual study of statistical averages, or the *nomothetic* approach, that prevails in psychology. Although Allport’s emphasis on the individual did not receive as much attention as he had hoped it would in his own time, *psychobiography* (psychological life histories of individuals, often though not always famous people) as well as personal memoirs (e.g., McCourt, 1996) are quite popular today.

**Proactive Motivation**

Allport’s perspective on psychology was far different from Freud’s. Allport focused on psychologically normal or healthy people whereas Freud based his theories on his neurotic patients; and Allport was much more interested in conscious processes than in the psychological unconscious.

He believed that both psychoanalysts and behaviorists were *reductionists* who saw people’s behavior in as mainly reactive. In both cases the person was seen as seeking a *homeostatic balance*, or a reduction of needs, in which the person is satisfied when biological and psychological needs of deficiency are met. But Allport viewed people as *proactive* in their motivations. In other words, people seek opportunities and challenges for personal growth and development beyond merely satisfying their basic needs. Allport’s views thus anticipate the later humanists, such as Rogers and Maslow (Chapter 14) and their conceptualizations of self-actualization. His proactive perspective is also compatible with Albert Bandura’s social cognitive approach (Chapter 10).

**Functional Autonomy**

One of Allport’s more interesting contributions to the psychology of development is his notion of the *functional autonomy* of motives. Allport believed that it was fruitful to view most motives as contemporary, or as satisfying some current need, as opposed to some historical need. This notion is not as obvious as it may sound. Freud, for example, viewed many needs as neurotic and grounded in past, as
when a person is fixated at an earlier stage of development. For example, someone who is overly compulsive or neat, Freud thought, was fixated or “stuck” at the anal stage of development.

Consider the example of a woman who maintains a very carefully tended garden, with very neat rows of petunias, daisies, and primroses. Further imagine that this garden is the delight of the neighborhood. Freudians might see her behavior as compulsive, having been rooted in childhood frustrations with over-controlling parents at around the age of two or three years. Allport, however, would view the woman’s past experiences as irrelevant for interpreting her present behavior. Perhaps she began her hobby as a means of dealing with some inner compulsion (which may or may not have been related to early childhood experience). But today it is more the case that she simply likes and enjoys making a beautiful garden. That is, the original motive (whatever it may have been) for her seemingly (to some) compulsive behavior is no longer the primary reason for her present behavior. There is no need to look for hidden, unconscious motives for such behavior in Allport’s opinion. The woman’s motive is functionally autonomous and it needs no further explanation.

The Measurement of Trait Dimensions

The Lexical Approach

Allport and Odbert (1936) were noted for their exhaustive listing of over 18,000 adjectives gleaned from a dictionary that were descriptive of individuals; hence, these were potentially common traits. They narrowed this list down by deleting terms that just didn’t seem descriptive of “personality” as ordinarily conceived – however, the final list was still in excess of 4,500 words! Lists of such adjectives form the basis of the so-called lexical approach to the study of personality (defining personality in terms of ordinary language) that was continued by many other researchers over the years – including Raymond B. Cattell, Lewis R. Goldberg, Warren T. Norman, Oliver P. John, and Paul Costa and Robert McCrae (John & Srivastava, 1999). As will be seen, these researchers employed the statistical technique of factor analysis to trait adjectives or brief
descriptive phrases depicting traits or behaviors to arrive at clusters or groupings of traits that characterize individuals. Although they were concerned with the psychology of individual differences, their psychometric approach was still basically nomothetic in that they believed that most people can adequately be described in terms of a relatively few number of factors, or “super-traits.” From the different combinations of individual profiles on these few factors, a large number of personality types can be identified.

How Many Basic Personality Traits are there?

The number of “basic” personality traits has long been a matter of debate in psychology. To some extent, this debate has continued even to this day. But a clue to the way psychologists have approached this dilemma is given in Cattell’s opening quote to this chapter. Psychologists have used the statistical method of factor analysis as a means of identifying basic personality traits. (Recall from Chapter 4 that this method was also used by psychometricians in their attempts to identify the basic dimensions of intelligence.)

Cattell’s Sixteen Source and Surface Traits

Raymond Cattell’s 16PF personality questionnaire (Cattell and others, 1993) was designed to measure 16 factors, or basic personality traits. Thirteen of these 16 dimensions he called surface traits, which are basic personality descriptive traits, and three he referred to as source traits, which underlie surface traits, and in fact cause them through their interactions (see Table 13.1).

All of Cattell’s traits are bipolar dimensions, meaning that these are continuous variables in which extreme scores at either end represent opposing characteristics. Hence factors are sometimes labeled by these extremes; so for example, the first source trait is called “reserved/outgoing.” Low scores are typical of a person who is quite reserved (or introverted, in Jung’s, 1921/1971, typology) and a person who scores quite high is outgoing (or extraverted, according to Jung). But only people at the extremes can really be called “types,” and indeed, there are a range of scores possible on this dimension (as
on the others), with most people falling somewhere in the middle of the range.

For Cattell, the three basic source traits reserved/outgoing, less/more intelligent, and emotionally unstable/emotionally stable are the most basic trait dimensions that best characterize personality. Cattell differs from most theorists in that intelligence is usually not considered a dimension of personality (although a related dimension called “openness to experience” might come close – see below). If the intelligence dimension is omitted, then Cattell and Eysenck (who is discussed next) appear to be very close on their ideas about what constitutes the most basic dimensions of personality, when Cattell’s source traits are compared to Eysenck’s rather minimal number of factors.

As with most kinds of psychological data, individual profiles can be made for the 16 dimensions, as can profile averages for different groups. It is very interesting to contrast the typical profiles of writers with those of airline pilots (see Fig. 13.1); clearly, these two “types” of people differ greatly on the average! But don’t forget that averages can be misleading – any given person in either group could have a profile that’s much different from the average.

Eysenck’s Two to Three Factors

Hans Eysenck originally believed that just two bipolar factors could account for most of the basic observed differences in personality. Eysenck’s two original dimensions were extraversion (or at the opposite end, introversion) and neuroticism (with opposite pole emotional stability).

Virtually all trait theorists have endorsed an introversion-extraversion factor – clearly a tribute to Carl Jung’s (1921/1971) original insight in identifying this fundamental psychological dimension. Not all theorists define this trait continuum exactly the same way as did Jung, however. For Jung, introverts were not defined by social phobias or shyness, but rather, by an inward, subjective orientation. However, a tendency to avoid large groups or unfamiliar people and to be less inclined toward impulsivity and risk taking (as Eysenck and others describe this trait) often goes along
with such an orientation. Jung believed that extraverts were more outwardly focused, and this kind of orientation also seems to fit well with Eysenck’s conception: Extraverts are sociable and outgoing, and much more adventuresome than are introverts.

People high in neuroticism tend to be anxious and tense, and are often depressed, moody, or touchy. At the other pole for this factor, emotionally stable people are calm and relaxed, and not easily upset.

Like Cattell and most other trait theorists, Eysenck believed that personality traits were normally distributed in the population, and that only people who were at the end points of the continuum formed clear “types.” But it is interesting to note the dichotomy that results when one considers only these extremes, from which the following typology can be developed, and related to some very ancient ideas about personality. The Greek physician Hippocrates identified four personality types that he believed were each related to an excess of four bodily fluids, or humors: sanguine (blood), phlegmatic (phlegm), choleric (yellow bile), and melancholy (black bile). Although today’s scientists do not believe that personality is related to these particular fluids, the types themselves are still recognizable in Table 13.2. (But readers should recognize that this table simplifies Eysenck’s dimensions.)

In years of working in a mental hospital, Eysenck came to believe that his two dimensions were not quite adequate for describing personality, so he added a third: Psychoticism. A person who is high in psychoticism is often antisocial and indifferent toward others, and is often hostile. People who are low on this dimension tend to be warm and caring toward others. The Eysenck Personality Questionnaire – Revised (EPI-R; Eysenck & Eysenck, 1993) is used to measure these three dimensions of personality.

Eysenck’s neuroticism and extraversion are obviously quite similar to two of Cattell’s three source traits. Eysenck believed (like Cattell) that a relatively small number of “supertraits” or, in the lingo of the factor analyst, “higher order factors,” could account for most of the important differences between people. Eysenck believed that his three factors were rooted in verifiable biological processes, and that these represent true differences between people that are genetically based in heredity.
Table 13.1
Cattell’s Sixteen Personality Factors as Bipolar Dimensions

**Source Traits:**
Reserved vs. Outgoing
Less intelligent vs. More intelligent
Emotionally unstable vs. Emotionally stable

**Surface Traits:**
Submissive vs. Dominant
Serious vs. Happy-go-lucky
Expedient vs. Conscientious
Timid vs. Venturesome
Tough-minded vs. Sensitive
Trusting vs. Suspicious
Practical vs. Imaginative
Forthright vs. Shrewd
Self-Assured vs. Apprehensive
Conservative vs. Experimenting
Group-dependent vs. Self-sufficient
Undisciplined vs. Controlled
Relaxed vs. Tense

Five Factors: The “Just Right” Number?

Many researchers felt that 16 factors (per Cattell) were too many for a parsimonious description of personality, and at the same time, that Eysenck’s three were too few. Although there still exist some disagreements, five factors seems to be the number that is most widely accepted today. Leonard Goldberg (1981) first referred to these as the **Big Five** factors of personality.

The five factors include the ubiquitous extraversion and neuroticism (consistently identified by many investigators over the years), as well as agreeableness, conscientiousness, and openness.
Note that a rearrangement of the first letters of these terms results in an OCEAN of possibilities for personality patterns, depending on one’s relative rank on each factor. More complete descriptions of each are (using common adjectives):

- **Extraversion** (versus introversion): sociable, adventuresome, outgoing, risk-taking (versus shy, reserved, bookish, cautious).
- **Neuroticism**, or emotional instability (versus emotional stability): depressed, self-conscious, anxious, guilty, touchy (versus calm, even tempered).

**Table 13.2**  
Hippocrates’ Types and the Extremes of Eysenck’s Two Dimensions of Personality

<table>
<thead>
<tr>
<th>Neuroticism</th>
<th>Extraversion</th>
<th>Extraversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (Emotionally Stable)</td>
<td>Phlegmatic (listless)</td>
<td>Sanguine (relaxed)</td>
</tr>
<tr>
<td>High (Neurotic)</td>
<td>Melancholic (depressed)</td>
<td>Choleric (irritable)</td>
</tr>
</tbody>
</table>

- **Agreeableness** (versus disagreeableness): cooperative, trustworthy, sympathetic, compliant (versus argumentative, difficult, uncaring).
- **Conscientiousness** (versus non-conscientiousness): Ordered, dutiful, and disciplined (versus lazy, disorganized, haphazard).
- **Openness**, or openness to experience; open-mindedness; intelligence (versus closed to new experience): Curiosity,
imagination, interest in the world (versus conventionality, dullness).

**Evaluating the Big Five.** As with other models considered in this book based on factor analysis of intelligence or personality, the Big Five factors can be seen as higher-order factors, supported by more specific measures. Neuroticism, for example, is built upon many lower-order factors, such as depression and anxiety. A person who scores high on neuroticism does not necessarily score high on each of the supporting constructs, but perhaps only some (e.g., one may be anxious and depressed without feeling guilty). So these factors represent very broad constructs, and they do not obviate the need to study more specific variables that form the lower-order factors that comprise them.

Scales that measure these five factors include (among many others) the NEO-PR-I (Costa & McCrae, 1992) and the Big Five Inventory (or BFI: John, Donahue, & Kentle, 1991). Research using the Big Five factor model has been astonishingly consistent in replicating these factors across many different populations (e.g., across genders and cultures), methods (types of measurement; e.g., self-ratings versus ratings by others), and instruments.

According to John and Srivastava (1999), the openness factor alone remains the one possible exception to the very broad generalizability of the Big Five. Reservations include first, in terms of naming this factor, what it should be called. Some have called it “intelligence,” some “culture,” and some “openness to experience,” indicating a lack of complete consensus on the exact nature of the factor. Second, this factor seems to be more difficult to identify consistently in cross-cultural studies, especially in non-Western cultures. (Some of the difficulties may be due to problems in translation.) Nevertheless, John and Srivastava believe the Big Five model represents the best general working model for personality psychologists to date. And overall they note that “the existence of cross-cultural universals would be consistent with an evolutionary interpretation of the way individual differences have become encoded as personality categories into the natural language” (1999, p. 106, emphasis added).
Trait theorists have often been accused of being too descriptive, and lacking in a theoretical basis for their approach, which is largely empirical. But McCrae and Costa (1996; 1999) describe a five factor theory (FFT) of personality based on the Big Five factors. Space limitations preclude a detailed summary of their theory, but it assumes that people have basic, biological tendencies grounded in the five factors (i.e., these traits are at least partially inherited), and that people’s characteristic adaptations (behaviors in a variety of situations) are influenced by both these tendencies and external factors (cultural norms; specific situations). They describe the FFT as “a Grand Theory in the sense that it attempts to provide an overview of the functioning of the whole person across the complete lifespan . . . FFT is closely tied to the empirical findings it summarizes, and its vision of human nature, at least at the phenotypic level, is not far removed from folk psychology” (1999, pp. 150 – 151).

Some critics of the Big Five factors think that these are too broad – that there might be other major factors of personality that these miss. And perhaps they fail to capture all the subtleties of the constructs that underlie them. Jack Block (1995) and Dan McAdams (1992) have criticized the Big Five factor model on the grounds that it is less than a complete theory of personality.

Another very telling criticism came from Albert Bandura (1999) who noted that Big Five items often consist of behavior descriptions (e.g., “I work hard to accomplish my goals”). He argues that such items are not descriptive of personality traits but rather of past behavior tendencies, and that using them to predict future conscientious behavior amounts to reification of the construct (i.e., falsely concluding a phenomena is something “real,” when essentially this relationship is close to tautological). Bandura believes that “. . . the discriminative personality structures are in the self system, not in the behavioral expression” (p. 166, emphasis added).

But the evidence seems clear that, at least as broad descriptors, the Big Five are here to stay: They cannot be ignored as major factors that are based on strong and consistently replicable research.

**How do the Big Five Related to Other Taxonomies?** Eysenck believed that his three factors represented traits that were highly
heritable. Lee Ann Clark and David Watson (1999) contrast Eysenck’s “Big Three” factors with the Big Five. They and other theorists have worked within a Big Three framework as an alternative to the Big Five. In relating these two models, they note that Eysenck’s psychoticism (they prefer the term disinhibition, with opposite pole constraint) is negatively correlated with both agreeableness and conscientiousness, though not to neuroticism. In this sense, psychoticism (or disinhibition), can be conceived as a combination of very low scores on agreeableness and conscientiousness. However, the Big Three have no clear relationship to openness.

Eysenck was an iconoclast who espoused a psychobiological explanation of traits; therefore he felt that Freudian psychoanalysis and related forms of therapy were not of much use (Eysenck, 1953). Also, comparative studies of adoptive and non-adoptive fraternal and identical twins suggested a strong heritability factor in many personality traits, two of which (extraversion and neuroticism) have also been identified as belonging to the Big Five 4.

Cattell’s 16 dimensions may be a little harder to place, but (a) reanalysis of Cattell’s data by Tupes and Christal (1961) produced five factors similar to the Big Five, and as already noted (b) two of his three source traits appear to measure extraversion and neuroticism by themselves.

Specialized (Limited) Personality Measures
Not all personality tests are intended as complete inventories. Many of these are instead designed to measure fairly specific aspects of personality, and usually do so in greater detail than overall measurement instruments, such as those designed to assess the Big Five. In some cases researchers wish to construct limited measures of psychological variables in order to study their correlations with other kinds of variables (attitudes and behaviors, for example), or to predict such variables. Examples include global or general self-esteem (e.g., Rosenberg, 1965), or more specific aspects of self-concept (e.g., Fleming & Whalen, 1990); need for approval (Crowne & Marlowe, 1964); or even the very specialized trait “Machiavellianism” (Christie & Geis, 1970). Others are interested in clinical assessment and diagnosis; hence, the Beck Depression Inventory-II (Beck and others,
1996) is a widely used measure of depression, and the Speilberger State and Trait Anxiety Test (STAI; Speilberger and others, 1983) measures not only the trait of anxiety (i.e., being a generally anxious person), but also the test taker’s current state of anxiety, which is partly situational.

**Clinical Personality Inventories: The MMPI-2.** Some psychologists have constructed personality scales that (unlike most of those discussed so far) are not designed to measure normal aspects of personality, but rather, attempt to identify psychopathology. There are many such inventories, but the most widely known and widely used today is the MMPI-2 (Butcher and others, 1989). This test is long – over 500 items! The items are short, descriptive statements, answered on a true-false-cannot say basis. Items that resemble MMPI-2 questions might look like these examples: “I often have stomach upsets,” or “I like to pretend I’m someone else.” MMPI-2 scales were derived from subsets of the items on an empirical basis rather than by factor analysis: Scores from clinical populations (such as hospitalized schizophrenics) are compared to people from the general population, and items that differentiate the two groups comprise the scale. For example, mean scores for schizophrenics on the Schizophrenic scale are significantly higher than are scores for the normal population.

There are 10 clinical scales for the MMPI-2: Hypochondriasis, Depression, Hysteria (related to Freudian repression), Psychopathic deviate, Masculinity-Femininity, Paranoia, Psychasthenia (anxiety and obsessive thought), Schizophrenia, Hypomania, and Social introversion (shyness). There are also three validity scales, designed to detect faking or laziness, known as L (which measures responding in a “good” direction; a kind of defensiveness), F (feigning psychopathology), K (detects subtle defensiveness; used for statistical corrections of scale scores), and ? (Cannot Say). Too many items not answered on the Cannot Say scale may indicate illiteracy, laziness, or defiance. In addition to these scales which were intentionally built into the test, many research studies have also identified additional empirical scales that are useful in detecting other kinds of psychological problems; for example, alcoholism (MacAndrew, 1965).
Interpretation of MMPI-2 scores requires special training and practice. The clinician does not simply look at scores in isolation, but at the subject’s entire profile, including validity scale scores. Diagnosis of psychological disorders is not made on the basis of MMPI-2 scores alone, but only in conjunction with other test results and clinical interviews, and with medical and psychological histories.

**Projective Personality Tests for Clinical Diagnosis.** As with the MMPI-2 and other clinical personality inventories, projective tests were designed for diagnosing psychological disorders. Projective tests require clients to interpret ambiguous stimuli, such as a random but symmetrical blotch of ink on paper, as in the well-known **Rorschach Test** (Rorschach, 1921), commonly known as the “Ink Blot” test. Such tests were originally designed to uncover unconscious thoughts and motives, with the clinician interpreting the client’s story in terms of its presumed latent content, as is done in dream interpretation (refer to the discussion of Freudian psychotherapy in Chapter 6).

Another very well-known projective test is Henry Murray’s **Thematic Apperception Test**, or TAT, created in collaboration with Christiana Morgan and other colleagues (Morgan & Murray, 1935; Murray, 1938). Murray was very interested in basic psychological needs – the need for power, for achievement, for nurturance, and so on – and he designed his test with the idea that the clinician could discover hidden needs, motives, or repressed thoughts and feelings in general using this instrument. The TAT consists of a series of cards with drawings depicting people in ambiguous situations. The client is asked to make up a stories based on these scenes. Interestingly, the very last card is just a blank white surface.

---

**Evaluation the Quality of Tests and Testing: A Smattering of Psychometrics**

**Standardized Testing Conditions.** In order to be useful, psychological tests must be given under uniform conditions. For example, the examiner always reads or recites the same instructions to
the test takers, and the test’s manual gives an allowable range of responses to questions from the person or person’s taking the test. In other words, the testing experience should be essentially the same for everyone who is tested. If not – for example, if excessive noise distracts the test taker – then the tests results may be invalid.

Establishment of Norms. Norms refer to published data giving summary information about test scores that are useful in interpreting results. These include basic statistics, such as means, standard deviations, and percentiles, as well as the capability to compare individual scores to different reference groups. Thus, statistics are usually broken down by age or grade, gender, and possibly by other demographic categories. Individual scores are compared with statistics which are based on large samples from a well-defined population, given under standardized conditions.

Reliability. A test’s reliability is the extent to which it measures a trait consistently. One way to assess consistency is to give a test to a norming group on two occasions, then to correlate the scores. The correlation should be high for a reliable test. This is called test-retest reliability. Correlations between scores on the first and second half of the test should also be high (provided all items purport to measure the same trait or ability); this is called split-half reliability.

If scores are based on the judgment of observers, then observer’s scores can also be correlated. Again, for good reliability, these correlations should be high. This is often called inter-rater reliability, also known as inter-scorer reliability.

Validity. In simplest terms, a test is valid to the extent that it measures what it purports to measure. Content validity refers to the extent to which the items on a test actually relate to the trait or ability being assessed. This is often a matter for judgment, based on expert opinion. For example, does a mathematical placement test contain a sample of all the kinds of skills one would need to prepare one for college? Consult a panel of experienced math teachers to be sure. If a test purports to measure mechanical aptitude, for example, then it
should be a good predictor of future success as a mechanic. The kind of validity in which a test score is correlated with some measure of future performance is called **predictive validity**.

A test that purports to diagnose psychological disorders can be evaluated for validity by noting that high scores on (say) depression correlate with another, existing test of depression, or with the clinical diagnosis or depression (based on interviews with psychiatrists, for example). Correlation with present (as opposed to future) criterion is called **concurrent validity**.

(This is intended as a very brief and cursory introduction to psychometric concepts. For further information – on other kinds of reliability and validity methods, for example – refer to a book on testing, such as Gregory, 2013; or Anastasi and Urbina, 1997.)

Other types of projective tests include **sentence completion tests** (e.g., the Rotter Incomplete Sentences Blank; Rotter, Lah, & Rafferty, 1992) and **figure drawing tests** (e.g., Draw-A-Person Test or DAP; Machover, 1949). A sentence completion test usually consists of a number of items like “When I’m in a bad mood I ______.” The client fills in the blank. Figure drawing tests are even more freeform; the client is asked to draw a person, tree, house, family, and so forth. Proponents claim that these tests are especially useful for children, who are often unable or reluctant to discuss emotional problems or family difficulties, particularly when there is suspected child abuse in the family. Most projective tests are based on psychodynamic theory, and interpretation is very much like Freudian interpretation of dreams or free associations. The projective tests can offer a standardized method for presenting stimuli, as well as guidelines for interpreting responses. But in general they are notoriously unreliable.

**The Projective Paradox.** In the study of tests most frequently used in the United States, Watkins and others (1995) found that three of the top five were projective tests or methods (sentence completion methods, Rorschach, and TAT). Gregory (2013) noted the paradox in the continued wide-spread use of projective tests, given their...
questionable psychometric characteristics. Virtually all of these are lacking in inter-rater reliability (any two clinicians are likely to produce vastly differing interpretations and diagnosis). The evidence for validity is also, on the whole, rather poor. Why, then, do these tests enjoy such widespread use? Gregory cites the fallacy of *illusory validation* as one reason. Clinicians, like the rest of us, tend to notice mainly confirming evidence, but they ignore evidence that contradicts their diagnosis. (Another good example of illusory validation is seen in people who tell you how much they win after gambling in Las Vegas or Reno – not really likely, at least not in the long run, according to the objective odds. On the other hand, they tend not to notice how much they lose.) A related reason is probably simple tradition: These tests have been around so long and used so extensively that people tend to believe that they *must* be valid.

But there is at least one good reason for justifying the use of projective tests despite their psychometric drawbacks, and that is for establishing *rappor*t with a client. These tests can be good “icebreakers” to get people talking about themselves; and in so doing, they can provide information that the clinician can follow up on with further inquiries. There is indeed a strong tradition of using projective tests in psychological diagnosis. But using a method simply because it has been used by one’s predecessors seems the least valid of reasons for continuing to employ such methods.

**How well do Traits Predict Behavior?**

One of the most important tasks of psychology is predicting people’s behavior. Such predictions are based in part on knowledge of the persons under study, including dispositional variables or traits and other attributes, such as their attitudes and the kinds of situations that they encounter. For example, how well will a child fare in her first day of school given an assessment of her temperament in early childhood, including factors such as shyness and irritability?

In the late 1960s Walter Mischel (1968) shook up the world of personality research by questioning the ability of personality psychologists to meaningfully and accurately predict behavior based
on personality assessment data alone. He argued convincingly that such predictions were difficult and where research did show some relationship of personality variables to behavior the correlations were usually quite small (in the .30 to .40 range). Mischel believed that this paucity of data in support of predicting behavior from personality variables was because so much of behavior is situation specific. A test may indicate, for example, that a person tends to be aggressive or perhaps docile and submissive, but such assessments of one’s presumed general tendencies are rather unstable and do not necessarily generalize from one situation to another, making consistency of prediction very problematic. Think, for example, of a person who is very aggressive in one situation – perhaps the manager of a baseball team who quickly becomes angered by an umpire’s close call – but not in another; he may be very patient and helpful in coaching players who are in a batting slump. Mischel would rightly argue that taking the situation into account – in this case, whether or not the other party in the two-way interaction was threatening and confrontive, or was in fact needful and grateful for help. In other words, the same person can be both aggressive and supportive, depending on circumstances. Thus Mischel argued that, above and beyond personality measurement, knowledge of the situation is essential to predicting behavior. This position in psychology is known as interactionism. Norman Endler and David Magnusson (e.g., 1976; 1977) have also argued strongly from this perspective.

More recently Mischel and his colleague Yuichi Shoda (Mischel & Shoda, 1995) have formulated a “cognitive-affective personality system” or CAPS that examines the personality-situation interaction from a more creative perspective. They now argue that personality traits (as measured by personality inventories) are consistent over time, but not over situations. Every person has some degree of variability from one situation to another; yet they also tend to be consistent within similar situations. They conceptualize their CAPS model symbolically as: If A then X; but if B then Y; where A and B represent different situations, X and Y different behaviors. For example, at a high school dance (situation A) Betty may be shy about approaching boys (behavior X). But while practicing on her debate team (situation B) she might behavior very (verbally) aggressively
toward boys in her class (behavior Y). These are the simplest aspects of the model of course; they also take into account many variables, such as people’s expectancies, beliefs, values, goals, attitudes, emotions, competencies, and perceptions.

Some personality theorists, such as Gordon Allport and Henry Murray, had earlier attempted to address the need to consider situations as well as persons in their research because they were already focused on the individual (consider Allport’s morphogenic approach and Murray’s “personology;” Hall, Lindzey, & Campbell, 1998). But Mischel’s challenge to psychology proved a wake-up call to many in the field of personality research at the time. It should be clear, however, the interactionist position is consistent with current theorizing in developmental psychology which stresses the individual in context (per Chapter 1).

**Personality Typologies**

**A Typology Based on Eysenck’s Neuroticism and Extraversion Factors**

The idea that there clear-cut personality types can be identified has been around for centuries. As noted above, the Greek physician Hippocrates identified four bodily fluids, called humors, which he believed needed to be in balance for good health. Galen, a Roman physician, identified personality types associated with an excess of each humor. The four types can still be found in persons who score at the extreme ends of two of Eysenck’s factors, as earlier seen in Table 13.2.

Like Cattell and most other trait theorists, Eysenck believed that personality traits were normally distributed in the population. But it is interesting to note the dichotomy that results when one considers only these extremes, from which the following typology can be developed, and related to some very ancient notions about personality.

Types (and typologies) can be useful, as long as one recognizes their limitations. Most people just don’t fit clearly and cleanly into categories. Types exist only for those individuals who score on extreme points on scales measuring certain kinds of personality traits. But historically it is interesting to note some theories in psychology that are based on typologies, discussed next.
Personality and Body Type

Is the shape of one’s body related to personality? (Is Santa jolly because he’s fat? Are short people insecure and “Napoleonic”? Are thin people more sensitive or “thin skinned”?) Most of these notions seem rather silly and can easily be dismissed – all it takes is a single counterexample to invalidate a stereotype. (Can you think of someone you know who is both overweight and depressed?) But back in the early part of the 20th century Ernest Kretschmer (1921/1925) published a book titled Physique and Character in which he identified four types of people based on body shape: Athletic (muscular), asthenic (thin), pyknic (round, or heavy), and dysplastic, which is a catch-all category for those who didn’t fit neatly into any of the others. Based on clinical observation, he claimed that asthenics were more prone to schizophrenia, with bipolar disorder (then called manic-depressive disorder) more common among the other types.

Kretschmer did find exceptions in that some pyknics were schizophrenic and some of the other types were bipolar, so the data showed only statistical trends. But his findings were based on correlations and no causative factors could be clearly isolated. A plausible explanation of these in terms of a third variable that could mediate the relationship between body type and diagnosis is simply age, which was not controlled for by Kretschmer: Bipolar disorder is more common later in life, whereas schizophrenic episodes tend to begin in youth. People also tend to put on more weight as they age, hence the correlations between the disorders and body types appear to be spurious.

Correlational data can indeed present problems in interpretation. William Sheldon, writing in the 1940s to the 1960s, also found correlations between body type and personality (e.g., Sheldon, Lewis, & Tenney, 1969). He developed a complex method for categorizing people according to body shape called somatotyping. But he labeled the most extreme types in a manner similar to Kretschmer: Endomorphs were thin, ectomorphs plumpish, and mesomorphs athletic.

Sheldon correlated body type with temperament. He found that ectomorphic types tended to be cerebrotonics (shy and nervous) and
endomorphs tended to be *vicerotonics* (sociable, pleasure driven, and prone to gluttony; the “fat and jolly” stereotype). But mesomorphs were *somatotonics*, who enjoy physical activity and risk-taking.

Sheldon believed that one’s body type was genetically determined, hence, a person’s temperament is largely controlled by one’s genetic makeup, rather than by life’s experience. His correlations between personality and somatotype tended to be higher than those reported by subsequent investigators. Nevertheless, small to moderate correlations between somatotypes, personality types, and even occupational choice exist and cannot be dismissed; however, as with all correlational findings, they do need to be further explained rather than accepted uncritically as causitive.

**Personality Types A and B and Cardiovascular Disease: The Evolution of a Construct**

Two cardiologists – Meyer Friedman and Ray Rosenman – noted that many of their heart attack patients had a distinct pattern of personality traits. Their *Type A personality* characteristics included extreme impatience, competitiveness, irritation and aggression toward others, and a sense of time urgency (they tend to be in a hurry!). In contrast, *Type B personality* characteristics are opposite types who were relaxed and easy-going. In a longitudinal study lasting for eight years these researchers tracked male patients of both types. They found that Type A’s were at much greater risk for coronary artery disease (CAD); in fact, they were twice as likely to develop heart disease as Type B’s (Friedman & Rosenman, 1981).

Note that Type A personality consists of a cluster of related variables, not a single trait. Also, Type A and Type B personalities represent the endpoints on a continuum of intercorrelated traits. As with most psychological traits, there are few “pure” types at either end. It is therefore notable that, of those who had heart attacks in the Friedman-Rosenman study, two-thirds were true Type A’s, but *none at all* were “pure” Type B’s. This was true even after controlling for other factors, such as age, smoking habits, and so forth. But because Type A’s consist of several different variables, researchers began to wonder whether or not all of these were implicated in CAD.
Further research has shown that neither time-consciousness nor competitiveness nor high achievement motivation is, by itself, a key variable. People who work hard and intensely to achieve their life goals are not necessarily at risk for CAD. Rather, the key variable seems to be hostility (Mathews and others, 1977; Miller and others, 1996). People who are hostile view others defensively, blaming them for their frustrations and failures. This generates a kind of perpetual anger toward others, which in turn, triggers stress; and it is that kind of stress reaction which is the real killer. The person with hostile anger tends to have high blood pressure and produce higher level of stress hormones (Lyness, 1993). It is as though they are constantly living under stress, and experience “fight or flight” reactions. And, increased levels of hormones tend to build up arterial plaque – a form of CAD that can eventually lead up to a heart attack.

Recent research has also emphasized cognitive factors related to self-concept (Contrada and others, 1999), such as (a) perceived lack of control (here the hostility toward others comes into play); (b) the contingencies associated with self-esteem (that is, with the idea that one’s self-worth is contingent or dependent upon one’s achievements); (c) devaluation of the motives of others; or (d) the belief that life is a competitive “zero-sum game,” in which there are clear winners and losers (Price, 1982). This line of reasoning suggests that it is how people think about themselves and others that increases levels of stress, and therefore, contributes to CAD.

Temperament: Constitutionally Based Personality Traits and Dispositions

Rothbard and Bates on Temperament

Temperament refers to tendencies or dispositions that are constitutionally based. In other words, one comes into the world with certain “built in” dispositions that are observable early in infancy. Temperament is thus due in large part to one’s genetic makeup, but may also be influenced by other factors such as fetal exposure to toxins or maternal infections, all of which precede one’s birth. This may not be news to parents, who often notice marked differences in their children’s temperament: one child may be calm and secure while
a sibling is irritable and restless.

Mary Rothbard and John Bates (2006, p. 100) define temperament as “constitutionally based individual differences in emotional, motor, and attentional reactivity and self-regulation.” Note that this is a two-part definition. First, **reactivity** refers to degree of emotionality (e.g., fearfulness), physical reactions (e.g., crying; fleeing), and attention. Reactivity can be measured in terms of duration and intensity (e.g., how long and how intense are crying episodes). Second, **self-regulation** pertains to the child’s own ability to control or moderate his/her reactivity. Rothbard and Bates view temperament as a subset of personality: “. . . personality includes much more than temperament, particularly the content of thought, skills, habits, values, defenses, morals, beliefs, and social and cognition” (p. 100).

Similarly, Caspi and Shiner (2006) state that “. . . most temperament researchers continue to focus on individual differences that emerge early in life, include differences in emotional processes, and have a presumed biological basis….However, most contemporary researchers also recognize that temperament is shaped by both hereditary and environmental influences and that temperament includes components of self-regulation and emotion” (p. 303, emphasis added).

But to what extent might any or even all personality dispositions be constitutionally based – in part or in total? Psychodynamic theory as well as many of the other theories considered in this book, stress the critical importance of the first few years of life in shaping personality. Although it is widely accepted today that psychological traits result from an interaction between heredity and environment, the pendulum of fashion has swung increasingly to the nature (or heredity) side of the nature/nurture divide within the last few decades. The fact that infants may exhibit certain characteristic ways of responding early in life does not always mean that these won’t change, however, and experience can play a vital role, as will be seen.

The **New York Longitudinal Study**

Two researchers, Alexander Thomas and Stella Chess, conducted a lengthy and comprehensive longitudinal study of temperament known as the New York Longitudinal Study (NYLS). First begun in
1956, Thomas and Chess (1977) published their results after 20 years of research. They structured their observation of infants along several dimensions, for example, general level of activity, rhythmicity (regularity of cycles of feeding, sleeping, and so forth), distractibility, and intensity of reactions. Based on their behavior ratings they found three dominant behavioral themes in infants:

1. The **easy child** (about 40% of sample). This child is cheerful, adaptive, and usual regular in routine.

2 The **difficult child** (about 10%). The difficult child is the opposite in temperament in comparison to the easy child. This child is a handful – irritable with intense emotional reactions, disturbed by novel situations, and not very fond of schedules!

3. The **slow-to-warm-up** child (about 15%). This child is in between the others, adjusting only gradually to novel experiences, relatively inactive overall, and it simply takes more time for them to adapt.

Note that these three types account for only about 65% of the babies. The remaining types were just less consistent and more difficult to clearly classify. But the observed behavior categories seemed well-established in the first three months of life. Later work has improved on the NYLS in terms of understanding the basic dimensions of infancy and childhood as discussed next.

**Research on Temperament in Infants and Children**

Mary Rothbart and John Bates (2006) reviewed numerous studies that attempted to measure dimension of temperament in infants and children since the NYLS types were reported. Variables of concern often had different labels, yet they tended to be conceptually similar. Four reliable, broad dimensions of temperament were found, as well as a tentative fifth. These were:

1. **Positive affect and activity level** (extraversion, surgency).
2. **Fearful distress** (display of distress at novel objects; unwillingness to approach these).
3. **Irritable distress** (general negative emotionality).
4. **Effortful control/task persistence**.
5. **Agreeableness/adaptability**.

They noted some similarities of these to the Big Five factors of personality, though they also stated that they were not necessarily identical with them.

Perhaps it may seem odd that child development specialists and personality psychologists have not jointly studied the continuity of temperamental traits in infancy with major personality traits in adulthood. But then perhaps it isn’t so strange, given that a longitudinal study of this magnitude would take many years to complete. Participants in such a study would be difficult to track over such a lengthy period of the lifespan, and such a study would also be extremely expensive (Kagan & Fox, 2006).

**Biology Plus Experience: Studies of Shy, Inhibited Children**

Some children exhibit a kind of fearful shyness at a very early age. Jerome Kagan and Nathan Fox (2006) distinguished between two kinds of shyness. Social shyness, or wariness of strangers, characterizes many infants, and may be related to early experience. But shyness can also be a form of behavior that is associated with children who are inhibited with respect not only to strangers, but also to novel objects and unfamiliar situations. The **inhibited or reactive** child represents only a portion of shy children. Kagan and Fox believe that the temperamental differences in the inhibited children are due to differences in brain structure, notably, the amygdala and associated neural pathways that are involved in the limbic system of the brain, and the sympathetic nervous system. More specifically, these structures are more easily aroused by external stimuli. The inhibited child’s heart rate and blood pressure as well as general state of arousal are more easily activated by novelty. Behaviorally, both fear and avoidance reactions are more common for these children, such as increased muscle tension, crying, or backing away from the feared object or person. About 20% of the four-month old children studied
were of this inhibited, high reactive type, and about 40% were, by contrast, low reactive children.

What is very interesting is that many (about a third) of the children who seemed temperamentally reactive in infancy were not particularly fearful by their second year of life (Arcus, 2001). A few even seemed fearless. In the Arcus study it was found that “a nurturing parent who consistently protected her high-reactive infant from all minor stresses made it more, rather than less, difficult for that child to control an initial urge to retreat from strangers and unfamiliar events. Equally accepting mothers who set firm limits for their children, making mundane age-appropriate demands for cleanliness or conformity, helped their high-reactive infants overcome their fearfulness” (Kagan & Fox, 2006, p. 204, commenting on the Arcus study). Thus it appears that there are potential dangers in overprotection of children who are reactive and inhibited, but conversely, parents can instill a sense of security in these children by their own positive actions.

On the Development of Traits and Temperament: Some Big Questions and Tentative Answers

The biggest question may seem to be “Who is right?” regarding the role of heredity versus environment in personality trait and temperament development. Or to put it differently, are all of us limited in potential – in what we might become – from the time we are born into this world? Of course this is just the same old refrain of the nature/nurture controversy, applied this time more specifically to personality. By now social scientists know better than to assume a single, all-encompassing viewpoint on this controversy. The question is not one of choosing between genetic endowments on the one hand, and life’s experiences on the other: developmental scientists know that both contribute and interact (as with intelligence, physical abilities, and so on). But they also do recognize that heredity has a greater role in personality development than was once thought. Think of the behaviorists, especially Watson and Skinner (per Chapter 8), and their extreme environmental emphasis by contrast. Eysenck, among others, represents the opposite point of view; he believed that
personality type and temperament were essentially the same, with most of what constitutes a person’s personality defined by a very small number of dimensions – and each of these largely determined by heredity.

A certain amount of research supports Eysenck’s views. His Big Three traits do have moderately strong heritability coefficients, based on twin and adoptive studies (Clark & Watson, 1999) – and so do the Big Five factors for that matter (Loehlin and others, 1998). For instance, differences in the nervous systems of introverts and extraverts have upheld Eysenck’s hypothesis that introverts work better under conditions of low noise, whereas extraverts seem to prefer at least some additional stimulation from the outside, when concentration is a factor (e.g., Eysenck, 1990; Stelmack, 1997). Think of studying with rock or hiphop on the radio – this works for some students, but not others. Introverts react more; they have lower thresholds in the brainstem’s reticular activating system for toleration of noise, and electroencephalograms show that they have more cortical arousal when stimulated by music or other forms of “noise” at low levels (Stelmack, 1990), making it harder for them to concentrate under such conditions.

It seems almost certain that a child who exhibits an introverted personality in infancy can never become a true extravert – or vice versa. But that does not mean that introverts cannot develop an “extraverted side” (or again, vice versa) later in life. Indeed, the development of different “sides” of one’s personality was considered an important part of psychological development in later life by Carl Jung (see Chapter 14).

Kagan and Fox’s (2006) perspective on development of traits and temperament is one of the wisest and most informed. They claim that: “…new discoveries imply that a child’s experiences might be able to mute or enhance an initial temperamental disposition. Specifically, an infant born with a physiology that contributed to high reactivity and fearfulness, but who experienced subsequently a supportive environment without major uncertainties, might undergo physiological changes in those brain circuits that mediate emotional reactivity and become minimally distressed. The initial genetic endowment is not deterministic and the phenotype is subject to
modification by experience (p. 218, emphasis added).” The process by which genetic expression becomes modified is called epigenesis (Carey, 2013; Francis, 2012; Moore, 2017).

Kagan and Fox further state that: “It is reasonable to be optimistic about the future of developmental psychology if scientists search for the coherent profiles that emerge from biological predispositions and life histories, and do not insist on reducing each profile either to the action of genes or the consequences of experiences (p. 217, emphasis added).”

****
For Thought and Discussion

1. Think of someone you know (or someone famous who is not listed in this chapter) whom you believe can be described by a single cardinal trait. What is it? Describe that person’s personality (traits or actions) in terms of this trait.

2. Do you agree with Allport, that studying a single individual in depth is part of what psychologists should do? Before you answer, think of psychologically oriented biographies and memoirs, and what they might offer.

3. Think of someone who is very conscientious and agreeable, and then think of someone who is the opposite. Share a brief description of these people. How do (or would) you relate to them?

4. Do you think that hiring practices should be based on results of personality tests (such as the MMPI-2)? Why or why not? Does this raise any ethical issues in your mind?

5. Sheldon thought that body type and temperament were largely determined by genetics. Try to think of a counterexample in which the correlations between one or more of his physical types (endomorph, ectomorph, mesomorph) and temperament (viceratonia, cerebrotonia, and somatotonia, respectively) might be caused by environmental factors.

6. Think of someone you know who is a Type A personality, then another person who is a Type B. How well do you get along with each of these people? Which (if either) type do you think you are?

7. Why might meditation be recommended to a person with coronary artery disease?

8. If you are a member of a family with more than one child (think of your siblings or your own children), think about how similar and how different these children are from one another. Briefly describe the ways in which they are similar in personality dispositions, and then about ways in which they are different. Where the differences occur, can you readily find an explanation in different early experiences? Or do you think that the children were “just different” from the beginning?
9. Take a closer look at Rothbart and Bates’ five dimensions of temperament for children. Which of the Big Three, and of the Big Five personality “supertraits,” do you think each resembles?

****
Notes

3. Allport was a stickler for language – to do him justice, his exact definition of disposition is repeated here as: “a generalized neuropsychic structure (peculiar to the individual), with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent (equivalent) forms of adaptive and stylistic behavior” (1961, p. 373). His definition of personality is also famous for its exactitude; personality for Allport was: “the dynamic organization within the individual of those psychophysial systems that determine his characteristic behavior and thought” (1937, p. 48).
4. Refer to the earlier chapter on intelligence (Chapter 4) for a more extended discussion of heritability of traits.
5. Those interested in more details on research using Sheldon’s types can consult Hall & Lindzey (1970); but note that their later edition (Hall, Lindzey, & Campbell, 1998) dropped Sheldon from their list of theorists.
6. A general discussion of psychological traits, stress, and illness is beyond the scope of this text, but see, for example, Myers (2004) for a good introduction.
Part VII:

Personality and Social Development:

Analytic, Humanistic, and Existential Perspective
15. Jung’s Analytic Psychology and the Self

Life has always seemed to me like a plant that lives on its rhizome. Its true life is invisible, hidden in the rhizome. The part that appears above ground lasts only a single summer. Then it withers away – an ephemeral apparition. When we think of the unending growth and decay of life and civilizations, we cannot escape the impression of absolute nullity. Yet I have never lost a sense of something that lives and endures underneath the eternal flux. What we see is the blossom, which passes. The rhizome remains.

–C. G. Jung

Man positively needs general ideas and convictions that will give a meaning to his life and enable him to find a place for himself in the universe.

–C. G. Jung

On The Nature of the Self

Development of the self is one of the most interesting topics of psychology – but note that the term “self” is meant to imply a rather general psychological construct rather than peculiarly personal or egocentric one. This psychological self is an elusive construct with many definitions. Roy Baumeister (1999) claimed that “No topic is more interesting to people than the self. It is what you mean when you say ‘I’ . . . Providing a satisfactory definition of self has proven fiendishly difficult (p. 1).” But consider that much of the study of the psychological self concerns the self-concept (i.e., people’s ideas about “who they are”), including the roughly equivalent terms self-esteem, self-worth, or self-acceptance (i.e., the evaluative aspects of existence, as in “how am I doing, in the great scheme of things?”). Self would therefore seem a kind of catchall category for the perceptions of oneself and for the evaluation of one’s life and experiences.

But it is also more than that. William James was the first self-psychologist, and remains one of the greatest contributors to the understanding of self (James, 1890/1950). Most social scientists are
mainly concerned with what James called the “Me-self,” or all of those self-evaluative attributes that one associates with oneself. These attributes facilitate an understanding of the “self-as-object” as opposed to James’s “I-self,” or “self-as-subject.” The latter is the subjectively experienced knower, the former the objectively known. Though most social scientists have studied Me-self, some have taken the alternative route and attempted to study the self-as-knower, which can also be called the _phenomenal self_ (or self as experienced). It is those theorists of the phenomenal self that are considered in this section of the text, including Jung, Maslow, Rogers, May, and others in this tradition, who taken together may be called _existential-phenomenologists_.

**Jung as Self-Psychologist and Developmentalist: A Preview**

Carl Gustave Jung is usually treated as a post-Freudian in the psychoanalytic tradition, because Jung (like Freud) viewed the unconscious as a key element in his psychology. Placing Jung in this context is therefore not without its rationale; however, this placement may obscure the fact that Jung was both a self-psychologist and a developmental psychologist – concepts which are of critical concern for this text.

Jung’s entire oeuvre is built around the concept of the self, and on its development through the lifespan. In fact, Jung believed that the very goal of human existence was the development and fuller realization of the self (think of Socrates’ dictum, “know thyself”), and that uncovering the knowledge of the self was foremost in his psychology. For Jung, self-understanding implied an increasing awareness of unconscious feelings, desires, and motives. He believed in developing all aspects of one’s personality to the fullest possible extent, and in this he can be compared with those later psychologists in this section that emphasized self-actualization, or the process of becoming ever more whole and complete. The main difference is that the latter stressed conscious rather than unconscious processes.

To clearly grasp these two key aspects in Jung’s psychology – self and psychological development – requires some reading between the
lines of his writings, which were vast: The collected works of Jung consist of nineteen volumes. While certain of his ideas were stated with crystalline clarity, others often seemed obscure; even arcane. At times one might suspect that Jung was writing more for himself rather than for the world at large!

To complicate matters, Jung wrote on subjects that seemed decidedly unscientific and even occult, such as flying saucers, alchemy, tarot, extra-sensory perception, the I-Ching, Kabala, and Eastern and Western religions. We may wonder, then, was Jung a psychologist, philosopher, or a mystic? The psychologist Jordan Peterson (2019) was told by his mentors to “never teach Jung!” But Jung himself was aware of the dangers of mixing these different approaches to knowledge: he claimed that he wrote about these exotic subjects to further understand their symbolic or archetypical (in the sense defined subsequently) significance. In other words, he did not claim to literally believe in flying saucers (Jung, 1964), in the sense that they were sent by aliens to observe us, and so forth; but rather, he wrote about how people sought in such objects a kind of wholeness that was lacking in their lives; and he attempted to explain what these visions symbolized psychologically to their purported observers (Jung, 1959).

Yet Jung may indeed have been mystic as well as psychologist. In his autobiography (1961/1973) he reports on his personal visions, premonitions, and on his thoughts on life after death. The opening quotations also give the sense of ideas almost metaphysical rather than scientific. But to his credit, he separated those works (such as the autobiography) that dealt with these exceptional phenomena from the collected works, which he believed to be based in science – at least as he understood this term. For all of that the reader’s “mileage may vary,” with those of an open nature more likely to be accepting of some of these “farther out” ideas, and those of a more skeptical nature less so. In any case, it should be noted that many if not most of Jung’s major concepts can in fact be subjected to scientific scrutiny; and many of these – such as his contributions to psychological types (Jung, 1921/1971) – are widely recognized as useful scientific constructs.
Jung’s concepts pertaining to development of self apply to the entire lifespan, but he was especially focused on adulthood and particularly on the later stages of life. As will be seen, these include his ideas about the midlife crisis, and his concepts of individuation, and the transcendent function – terms which are precisely defined later – which are decidedly relevant to personal development. Jung also believed that the challenges of the second half of life are essentially spiritual concerns. Here the reader may see some parallels with the Eriksons (Erik and Joan) per Chapter 9, though the Eriksons did not couch their terms in quite this manner.

To see how Jung’s theory applies to development of the self it is first necessary to present an overview of his main ideas. But as a prelude, a brief bit of biography will help to make Jung’s worldview more comprehensible.

**Biographical Background**

**Jung’s Relationship with Freud**

The relationship of Jung with Freud, but especially the eventual break in their professional association, played a crucial role in Jung’s development. Following this break, Jung experienced a period of considerable angst and depression, and at times it seemed as though his mental state bordered on psychosis.

The relationship itself began in mutual admiration, but it also had to some extent a father-son dynamic: In the beginning Jung had almost a worshipful view of Freud, who appeared as a wiser, older influence. On Freud’s part, he envisioned Jung as his protégé and successor. One of their chief disagreements was over the role of sex in repression. Like Freud, Jung believed that certain memories became repressed into the unconscious, but he believed that sexual anxieties were not the cause in most cases; and he could not understand what he viewed as Freud’s obsession with sex.

Freud’s attitude toward Jung, on the other hand, seemed paternalistic; in a letter to Jung (dated April 16, 1909; reproduced in Jung, 1961/1973) he stated that he “… formally adopted you as an eldest son, anointing you as my successor and crown prince …” (p. 361). In 1909 both men accepted an invitation from G. Stanley Hall to
visit and lecture at Clark University in Massachusetts. Their relationship was already strained by this time over disagreements regarding the prominent place of sex in Freud’s psychology and Jung’s interest in matters that were more spiritual. They spent a great deal of time together, and also attempted to interpret one another’s dreams. It was in this endeavor that Freud disappointed Jung in his inability to make sense of the latter’s imagery. But by this time Jung was beginning to see fragments of ancient and impersonal images in his dreams. One dream was of a two-story house, in which Jung believed the top story represented the conscious mind, the lower one the unconscious. But even below this story he found passageways to deeper and deeper depths. The primordial images he encountered in his dreams he would later term archetypes, and come to regard as kinds of universal symbols which he thought were embedded in the unconscious of all people.

Jung was an independent thinker so it is understandable that, though he grasped Freud’s brilliance, he did not wish to be merely a mouthpiece for another man’s views. Freud, on the other hand, did not wish to let go – and he could not seem to acknowledge other points of view, especially with regard to his views on sex as the dominant force in human motivation. Hence followed the rebellion, not only of Jung, but also of Adler and other early adherents – who could not bring themselves to accept Freud’s views on this subject (his Achilles heel), which they perceived as dogmatism. Jung in particular stated that “My whole being was seeking for something still unknown which might confer meaning upon the banality of life” (1961/1973, p. 165). It was obvious that Freud’s views were too materialistic for him, but to Freud, Jung’s were too close to the occult to be scientific.

Ironically, Freud himself believed that a young man must learn to separate himself from his father as part of the oedipal struggle (ironic because of Freud’s own oedipal tendencies, which were discussed in Chapter 8). In Jung’s case, he believed that his father – a country parson – failed him as an adequate role model. Jung viewed his father, Johann Paul Achilles Jung, as an unhappy, non-communicative man. Jung believed his father suffered from religious doubts and faulted him for not questioning his beliefs or pursuing a more spiritual and
less literal path to religion. Here it is necessary to explain Jung’s own Gnostic spiritual orientation. The Gnostics were an early Christian sect who believed that “… to know oneself, at the deepest level, is simultaneously to know God; this is the secret of gnosis” (Pagels, 1979, p. xix). Jung saw his father’s unhappiness as a failure to explore the deeper realms of existence: he was conventionally religious, but completely lacking in spirituality.

In the author’s view, Jung transferred his need for a strong father figure onto Freud, whose intellectual credentials were much richer and also more deserving of his admiration than those of his own father. Yet despite Freud’s great intellect and his keen analytic mind, Freud, too, was basically a materialist. Although Freud, like Jung, was interested in the study of other cultures and in mythology, he refused to grant any credence to the spiritual side of life. Freud said to Jung on one occasion “My dear Jung, promise me never to abandon the sexual theory. That is the most essential thing of all. You see, we must make a dogma of it, an unshakable bulwark … Against the black tide of mud” (Quoted in Jung, 1961/1973, p. 150). The “mud” Freud referred to was any idea that smacked of religion, spirituality, or occultism.

Hearing these remarks, Jung began to lose respect for Freud. To make a dogma of his ideas on sexuality – that very notion was an aberration to anyone who was interested in an open-minded search for truth. Jung, incidentally, did not think sex irrelevant to psychology; “On the contrary [sex] plays a large part in my psychology as an essential – though not the sole – expression of psychic wholeness” (Jung, 1961/1973, p. 168). But he believed that Freud became obsessed with the topic to an unnatural degree. Jung thought that Freud overlooked the human need for meaning, including spiritual needs.

**Jung’s Dark Period**

Alas, a falling out of son and father is inevitable if the son is ever to achieve a state of independence. The more the father figure attempts to reign in the son’s ambitions the more difficult is the process of separation. Thus Jung’s period of pain and internal strife
were a result of this rift: He had to let go of the reins and assume his own place in psychiatry, but for this he paid a great price.

After his break with Freud, following the American visit, Jung stated that “… a period of inner uncertainty began for me. It would be no exaggeration to call it a state of disorientation. I felt totally suspended in mid-air, for I had not yet found my own footing” (1961/1973, p. 170).

For the next several years Jung continued with his psychiatric practice, but he adopted a very non-Freudian stance. Rather than attempting to interpret his patient’s dreams, for instance, he allowed them to make their own interpretations, which he deemed a more appropriate practice. But having abandoned a Freudian framework, he still felt a need for a new, more cohesive system for working with people. To enable this goal, and because of his own mental state of depression, he went very deeply inside himself. It was during this period that he opened himself to his own unconscious, which revealed itself in dreams that were often vivid, and imaginative in fantasy. He also experienced visions, which made him wonder if he had gone too far inside his own head: he at times even questioned his sanity. However, his devotion to his family and his continuing professional practice provided a leveling balance to these inward ventures.

Archetypical figures began to appear to Jung in dreams. One such figure, a “wise old man,” he came to call Philemon. Philemon became for Jung an inner voice of guidance, not unlike an Eastern guru. Philemon represented, in Jung’s words, “superior insight” (1961/1973, p. 183). Another, a small blind child called herself Salome. He came to regard her as his “anima” or the feminine component within his psyche. Still another figure, a “leathery, brown dwarf” represented his shadow, or dark side. Jung did elaborate journal writing describing these images, and he even painted them.

Jung believed that these archetypical figures from his own unconscious were also present in buried layers of everyone’s unconscious minds. His research into mythology and cultural anthropology led him to discover these and other archetypes in the art and myths of cultures around the globe. They became important for his new psychology of the collective unconscious (described more fully shortly). And all of Jung’s subsequent works stemmed from
these initial encounters with his own unconscious mind, begun in 1912.

The most difficult of these times for Jung came in 1913 when he experienced a vision of a flood encompassing all the land from the North Sea to the Alps, spreading from there to Switzerland (his homeland). He saw “the mighty yellow waves, the floating rubble of civilization, and the drowned bodies of uncounted thousands. Then the whole sea turned to blood” (1961/1973, p. 175). This is the time when he truly thought he might be undergoing a psychotic episode. But when the Great War (World War I) broke in Europe, he came to believe instead that this vision and related dreams had been psychic premonitions of that horror that eventually came.

Toward the end of this intense period of Jung’s life, and as it happens, toward the end of the war, he began painting *mandalas*, which are archetypical symbols of wholeness based on circular configurations – the Buddhist “wheel of life” and Navajo sand paintings are examples of mandalas that are embedded in those particular cultures. Jung did not seem to know why he was compelled to paint these at first, but eventually he came to understand that they stood for the archetype of the self, and that constructing these paintings represented a search for selfhood, or personal healing.

**Elements of the Jungian Theory of Personality**

**The Components of the Mind**

Like Freud, Jung believed in an unconscious mind which contains repressed memories and internal conflicts of which people are unaware, together with forgotten memories and subliminal impressions. His *personal unconscious* was thus equivalent to Freud’s unconscious plus his preconscious mind. And like Freud, Jung also recognized the conscious mind as consisting of those thoughts and feelings that are recognized by the individual. For Jung the *ego* was at the center of consciousness. Conversely, the ego can block threatening thoughts and feelings and keep them from conscious awareness where they would otherwise create anxieties. As with the later ego psychologists, Jung did not dwell on the significance of Freud’s id.
A complex is a constellation of emotions in the personal unconscious that is blocked from consciousness and that is centered on a personal problem area and is persistent and long lasting. For example, a man who is attached to his mother to an unhealthy degree has a “mother complex,” and likewise a woman may have a “father complex.” Jung created a technique called the **word association test** to uncover complexes in his patients. This projective test consists of a standardized set of words that the analyst repeats to the patient. In response, the patient says the first word that comes into her or his mind (e.g., “pencil – stick,” “child – boy,” “feeling – sad,” and so on). When the patient has a lengthy pause in responding to related words, anxiety over the word indicating an underlying complex is suspected. Jung also measured skin conductance as an indicator of anxiety associated with certain words as one of the first physiological tests of anxiety. Time of response, galvanic skin response, and more indirectly, signs of stress such as coughing, blushing, or facial expression, were used by Jung as aids in diagnosing a complex.

The **collective unconscious**, briefly mentioned above, goes deeper than the personal unconscious. This is the repository, as it were, of archetypes that Jung believed to be shared by all humanity. In **Jungian dream analysis**, elements of the personal unconscious are often bound up with archetypes of the collective unconscious as well. Archetypes, like complexes, have emotional associations connected with them. These archetypes were presumably formed through the experiences of our ancestors when faced with certain characteristically human situations – in other words, they evolved over the eons. An archetype is not to be confused with a symbol such as a Freudian phallic symbol. Rather than being associated with a single kind of image or object, an archetype goes deeper and evidence for it is more indirect; but it may be manifested in dreams, in the form of a symbol.

**Archetypes and Jungian Dream Analysis.** In Jungian dream analysis, archetypes may appear in “big” dreams or those which seem to touch on something deep inside a person. Jung claimed that such archetypical dreams have a **numinous** quality, or in other words, a
kind of intensive energy that is otherworldly, or have a “possessive or obsessive force” (Jung, 1961/1973, p. 347).

Also, Jung emphasized that the characters in a dream can represent different aspects of one’s self; thus, conflicts between persons in a dream can often be interpreted as inner conflicts between competing desires or between different “sides” of one’s personality. For example, if a man dreams of having a physical fight with another man, this might signify a conflict with a shadow, or part of the self that is not consciously acknowledged.

Jung believed that symbols in dreams have personal meaning, so symbols do not by themselves have a universal meaning (e.g., a “phallic shaped” object might or might not have something to do with sex). In fact, dream symbols may have many meanings, and it is crucial to tie the contexts of dreams to what is known of the dreamer’s background. The Jungian analyst is more likely to learn something of value about a person by analyzing a series of associated dreams than by considering a single dream by itself. **Dream amplification** is the process by which the patient presents many different associations (free associations) to the dream or dream series; from such associations it may be possible to identify recurring themes, or complexes.

**Archetypes of the Collective Unconscious**

There are a great many cultural archetypes according to Jung (1934/1959); for example, there is the archetype of the Hero (as in Joseph Campbell’s, 1968, *The Hero with a Thousand Faces*), the Earth Mother, the Wise Old Man, the Jokester, the Fool, the Maiden, and so forth. Those familiar with tarot cards will note that each of these is represented in the tarot deck. But of particular importance to Jungian theory are those archetypes that symbolize aspects of one’s personality, discussed next.

**The Persona.** Persona is Greek for mask, and in Greek dramas the actors wore masks that portrayed emotions like pain, sorrow, or joy. For Jung the *persona* is the outward appearance or public image that one creates; it is ordinarily a façade that hides one’s true feelings. To a certain degree, all of us put on a “social face” for others. But there is
a problem when a person dons a persona too much of the time, and
the ego identifies with this outward expression of one’s personality. The danger is in forgetting who one really is underneath that public face, while adopting instead an archetypical personality (e.g., the Hero, Wise Old Man; even the Shadow). Jung referred to this kind of extreme identification as inflation (as in “that person has an inflated ego”). The result is loss of contact with one’s real self; the person becomes one-sided – actually a caricature of him/herself.

The Shadow. Yes, the Jungian shadow does represent the “dark side” of one’s personality, but shadows do not always represent negative or evil parts of ourselves; they can be, but often they are more simply parts of ourselves that we do not consciously wish to own. The shadow also represents the primitive but artistic creativity within each of us; it speaks to our vitality. Note that Jung’s “dark period” was also his most creative time of life!

Archetypes in Modern Mythology: The Movies and Television

May the Force Be With You!

Archetypes abound in Hollywood! The traditional western movie contains all the elements of cultural mythology: The hero, fair maiden, and the evil, shadowy villain. In case viewers weren’t sure, in the old days of western film making the hero was the one with the white horse and hat and the villain always wore black. Variations on the plot setting abounded, of course, but the script always amounted to basically the same themes of good versus evil, and the need to save the helpless damsel in distress.

In the days of yore the heroes were the knights of King Arthur’s Round Table, and the villain was sometimes even more fearsome as the fire-breathing dragon (who sometimes sported two heads as well) or the wicked wizard who could cast evil spells on the hapless hero or heroine. Think of the original George Lukas film Star Wars and its sequels. Lukas and Jung both knew their mythology and something
about Eastern religions as well. Equate the “way of the Force” with the way of the eternal Tao and you get the picture, with its light and dark sides representing the yang and yin, or eternal opposites (Porter, 2003). If you are familiar with these films, try to identify each of these characters with one of these archetypes: Shadow, Hero, Wise Old Man, and Maiden.

*Starwars characters:*
- Luke Skywalker
- Han Solo
- Lando Calrissian
- Princess Leia
- Darth Vader
- Obi-Wan Kenobi
- Yoda

(For a more in depth analysis of these characters in relation to Jung’s psychology visit George Boeree’s, (1997) web site.)

****

**Who Was that Masked Man?**

Some film actors probably become strongly identified with their screen personas. The masked character the Lone Ranger was played by Clayton Moore in the early days of television. Moore loved to wear his Lone Ranger mask in public when he signed autographs. As he aged, however, the corporation that owned the rights to the character refused to let him wear the mask, so he switched to wearing very dark sunglasses instead. They didn’t want Moore confused with a younger actor who played the Ranger in a newer film. But the film flopped, and eventually Moore prevailed: The public simply demanded that he be allowed to resume this role and wear his mask, continuing to uphold that “persona.” Whether Moore over-identified with the hero character of the Lone Ranger, or whether he was just
having fun, might be difficult to decide without a greater knowledge of the man and his life off the stage. *Hi Yo, Silver!*

A good example of encountering the shadow is one given by Jung himself. In a dream the “leathery brown dwarf” slays what appears to be an archetypical hero figure – a blond Germanic man Jung referred to as Siegfried. Jung (1961/1973) identified this “hero” with the German people at the time of the First World War. The shadow stood for his misguided tendency toward nationalism, or seeing heroism in the German cause. Symbolically, Jung admits that “Siegfried” also stood for his former hero, “Sigmund” (i.e., Freud). The lesson in both cases is in the dangers of hero worship.

The *Anima/Animus*. Like Freud and others in the psychoanalytic tradition, Jung believed that people were, in a sense, bisexual. But in the present context this term does not refer to sexual preference or activity, but rather to the fact that all of us have within us characteristics of the opposite sex. For example, the male sex hormone testosterone and the female sex hormone estrogen are present in both sexes, but to differing degrees.

The *anima* represents the feminine within the male psyche. Jung identified this part of the personality with the “soul” of the male, and as the gatekeeper to his unconscious mind. The *animus* serves a similar function for females.

Jung believed that men tended to be more rational in the intellectual sense than women; hence a man’s growth process requires him to learn to accept his feeling or feminine side. The reverse, of course, is true for women. A man who is excessively moody, or a woman who intellectualizes too much, would be seen by Jung as having failed to adequately come to terms with the anima or animus, respectively.

A woman may *project* the animus or male archetype onto men; perhaps seeking in them a quality of personality that she lacks; and again, a similar process occurs in men with projection of the anima onto women. Seeing the other person in terms of an archetype, rather than as the real, flesh-and-blood person that he/she is, can be the cause of relational stress and failure. The characters of Henry Higgins
and Eliza Doolittle in Shaw’s *Pygmalion*, or the musical *My Fair Lady* based on this play, exhibit such tendencies toward projection. If people can develop the opposite sex sides of their personalities they would no doubt be much more satisfied in their intimate relationships, not having to depend on their partners for satisfying unrealistic or impossible needs! The raging battles between the sexes that one sees or participates in, Jungians would agree, are really between two archetypes. This is also the reason that “love at first sight” seldom lasts.  

**The Self.** The *self* is Jung’s most important archetype of personality. The self represents the unity of the personality; it is all that a person can attain through personal growth and striving in one’s life. Though the self is largely unconscious, people nonetheless strive for wholeness. People who are more psychologically healthy are those who have achieved a greater realization of the self, and have become more conscious of the self. But self-realization is always necessarily incomplete because psychological growth is never fully achieved.

In dreams the mandala often represents the self. Recall that Jung painted mandalas almost obsessively toward the end of his “dark period.” In dreams, other symbols of the self often appear, such as a fish, gemstones, or animals (when they connect to the basic, primitive parts of ourselves); indeed, in the right context, many kinds of animals or objects are potential “self” symbols.

---

**Searching for the Self: A Jungian Dream from the Author’s Youth**

In my mid-thirties when I was still a single man I returned to graduate school with a strong sense of self-direction in pursuit of my doctorate. But I was unhappy in other areas of my life, including some failed relationships. Generally, though, I can say that I was striving and searching, both internally (through thoughts and dreams) and externally (via my studies) for a better life and career.

I began to have a series of dreams about bodies of water and of fishing. On many nights over a period of several months I had such
dreams. Sometimes I was fishing from a dock or a boat, but usually with little luck (no bites). Once I did catch a Japanese glass fishing float in a net (mandala symbol). Another time a very big fish struck my line with great ferocity and nearly pulled me into the water with it, but alas, the line broke and it escaped.

This dream series was capped by the following dream, in which I was finally successful in catching a “big fish.” This was a very dark night (dark as in unconsciousness); I was on a dock or pier that spread over a vast body of water (sea or ocean) as far as one could see in all directions. Below me but at a crisscross angle was another pier, and below that was sea itself.

On the lower pier were people who spoke with angry voices. They shouted at me and showed their fists, although I can’t recall hearing any specific words from them. But I ignored them and dropped my line into the water below, at the juncture of the two piers.

Then I felt a huge tug and I began to reel in an enormous fish. It must have been about 8 feet in length. When I hauled it in, it sparkled and shimmered in the moonlight, radiating colors of pink, silver, and gold.

The meanings one may find in dreams are subjective, and subjectively dreams usually seem to have more than one meaning, with symbols that can do “double duty.” Or as Freud noted, dream symbols can be very efficient. I will give my interpretation, but others may see different things here as well.

The sea, it seemed to me, represented the unconscious with its surface being the dividing line between these two states of mind: the conscious and the unconscious. The fact that the sea was vast and dark meant to me that it has an archetypical element to it. In fact the three levels – top deck, lower deck, and sea itself – could easily represent consciousness, the personal unconscious, and the collective unconscious, respectively.

At the level of the second deck the angry voices, I thought, could only represent the self-doubts and self-criticisms that I was undergoing at the time. (Had I been younger I might have seen these as voices of other people – family or others – with whom I had experienced conflicts; but at this level of maturity, I think I understood that they were best seen as conflicted parts of my self.)
This was the level of the personal unconscious to me. The vastness and darkness of the sea evoked a kind of numinous feeling, so I had not doubt that this represented something very primitive and archetypical: The collective unconscious.

I suspect that a Jungian might also see the crisscrossed piers as representing opposing forces within myself. But note that the fish was caught at the juncture of these forces. I believed that the fish represented my greater self – it symbolized that for which I strove so intently in both my conscious state and at a deeper level. This “catch” also silenced and awed (at least temporarily) the angrier inner voices of conflict and doubt. I think the enormity of the dream and its symbols overwhelmed me, and for a time inflated my ego. But I also felt that it marked a significant milestone in my process of personal growth.

Perhaps the dream helped me to solve some of my external problems as well as internal conflicts. I had been dating many women at this point in my life, and was not really sure of what it was that I wanted or needed from a relationship. But about a year later I made a choice and married – a decision that I have never regretted.

It seems with me that at every point in my adult life when I am experiencing a certain degree of tension, a feeling of being blocked, I begin to have such archetypical dreams of fishing expeditions; it becomes my own way of “working things out” at an unconscious level – corresponding as well with work on personal conflicts at an outer level.

**Psychological Types**

In Jung’s (1921/1971) book *Psychological Types* he described two basic *attitudes* (or characteristic ways of acting) called *introversion* and *extraversion*, and four *functions* (or typical ways of taking in or processing information): *Thinking*, *feeling*, *sensing* and *intuiting*. The attitudes represent opposing styles – introversion versus extraversion – as do the two opposing pairings of the functions: Thinking versus feeling, and sensing versus intuiting.
Many people have taken psychological tests that measure these attitudes and functions, the best known of these being the *Myers-Briggs Typological Indicator*, or MBTI (Myers, 1980). The *Keirsey Temperament Sorter* (Keirsey, 1998) is another well-used instrument for measuring Jungian types; also see Wheelwright and Buehler (1964). (For a contrarian view on the MBTI, see Grant, 2013.)

**The Attitudes: Introversion versus Extraversion**

Introverts are people with an inward and subjective orientation (or attitude, in Jung’s terminology) to the world; they tend to like ideas. Extraverts, on the other hand, are oriented to the external and the objective; to people and to action. Jung’s two basic personality types based on these classifications have been upheld in countless psychological research studies of personality traits (recalling Chapter 14). But notice that Jung viewed these types somewhat differently from most theorists. Hans Eysenck and others saw extraverts as very sociable, outgoing, physical, and prone to taking risks; and introverts as shy and retiring. The truth is that, because introverts often are so “inward,” they are much less attuned to what is going on around them, and they are indeed less sociable. But Jung’s views on the difference between these types differ from later theorists, who stress relationships to a much greater degree. (Note that both points of view can be considered valid without contradiction.)

It is historically interesting to note that Jung thought that part of his conflict with Freud arose because the two psychiatrists were opposing types, at least in writing styles: Freud’s writings expressed an extroverted psychology whereas Jung’s (and Alfred Adler’s for that matter) were both strongly introverted in their contexts.

**The Functions: Thinking Versus Feeling, Intuiting Versus Sensing**

*Two Kinds of Perceiving.* Jung believed that people differ in the way that they perceive the world. Some people focus on the reality of the objects they see before them whereas other folk see possibilities. Consider a plain white vase. When such an object is placed before a sensing person, she “sees” a plain white vase, but an intuiting person
sees (perhaps) a container for liquid, an object of beauty (when filled with red roses), or more artfully imagines what the vase might look like if adorned with paste-on sequins and rhinestones. Jung believed that intuiting people use more of the unconscious mind in perceiving, sensing people more the conscious mind, or WYSIWYG (“what you see is what you get”).

Two Kinds of Judging. When making decisions or coming to conclusions, thinking people use logic more than emotion and the process tends to be impersonal. Feeling people are the opposite; they view things more subjectively, and are concerned with the personal consequences of decisions that they may make whenever people are concerned. It is not necessarily true that feeling people are illogical; more to the point they are “tender-minded” to use William James’ term (a trait also identified by Raymond Cattell as one of his personality dimensions; Chapter 14) when deciding issues that affect people’s feelings. Research on gender roles has shown positive correlation between thinking and traditional masculine or instrumental role, and there is also a positive correlation between feeling and traditional feminine or communal gender role (e.g., Lentz, 1983\(^8\)). There are also gender differences as one might expect, with women scoring higher on feeling, men on thinking; but bear in mind that these differences are only based on averages: there are also lots of men who are feeling types and many women are thinking types. It is of course, possible for some people to be quite well-developed on both sides; a goal advocated long ago by C. P. Snow (1959; also see Hustvedt, 2016).

A Functional Hierarchy. Jung believed that just one of the functions (thinking-feeling or sensing-intuiting) was a person’s superior or dominant function, or the one he/she uses most often in dealing with the outer world. Another is the secondary or auxiliary function, one that is also relied on, but not as much. The third in the hierarchy is called the tertiary function; it is used much less, hence it is almost unconscious in many people. Finally, the inferior function is the one used less, of which most people are unaware. For example, consider a man who is very much a thinking person (his superior
function) who also uses sensing as his “backup” or secondary function. As he is not without compassion, he also recognizes that he has feelings for people (feeling is tertiary). But this man is not very intuitive, so that is his least developed or inferior function.

**Judging-Perceiving: The Myers-Briggs Addition.** In order to determine one’s superior function, the Myers-Briggs instrument includes a measure of the way in which people confront the outer world. (This typological measure was not part of Jung’s original scheme.) Judging people are more decisive whereas perceiving people have a greater tolerance for lack of closure (and perhaps toward procrastination). Similarly, Judging people tend to like schedules, perceiving people are more open to spontaneous activity.

Here is how these additional measures work toward determining one’s dominant function (this may seem somewhat complex!). If a person is an extravert and judging, then the dominant process is, indeed, a judging one of thinking or feeling (whichever the person has scored highest on). If a perceiving type, then the dominant process is sensing or intuiting.

But this is reversed for introverts because introverts approach the outer world differently; introverts, by definition, do not use the dominant process to deal with the outer world (they use the dominant process to deal with the inner world). Therefore, if an introvert is judging then the dominant function is perceiving – either sensing or intuition. And if the introvert is perceiving, then the dominant process is thinking or feeling. Isabel Myers (1980) argues that the judging-perceiving typology and its ability to identify one’s dominant function follow indirectly from Jung’s (1921/1971) extended theorizing.

**Usefulness of the Types**

Tests of Jungian typology like the Myers-Briggs use letters to abbreviate types as follows, with an illustrative item (not from any given test) shown in parentheses:

I: Introversion (“I love best a day spent with my studies.”)
E: Extraversion (“I am most energized when in a group of people.”)
S: Sensing (“I am good with details.”)
N: Intuiting (“I place trust in my hunches.”)
T: Thinking (“I base my opinions about people on facts, not emotions.”)
F: Feeling (“I value harmonious relationships.”)
P: Perceiving (“I enjoy spontaneity in interactions with others.”)
J: Judging. (“I carefully plan my daily activities in advance.”)

These comprise four pairs of opposites (e.g., I vs. E). From these it is possible to construct 16 possible types (e.g., INFP, ESTJ). Descriptions of each type are beyond the scope of the present text, but see, for example, Boeree (1997), Kiersey (2004), or Myers (1980). These classifications are widely used in business management seminars (primarily to help people to understand and get along with people who are of different types than themselves), and in personal and occupational counseling (certain types seem to gravitate to certain fields).

Here are some interesting findings on types reported by Myers (1980):

- In a study of 375 couples, most were matched (77%) on at least two of the MBTI scales, and only 4% were totally dissimilar. But most typically the couples were matched on S or N, or in other words, they “saw things the same way” (p. 128).
- Some occupations are also more clearly “typed” than others. Myers reported that 87% of accountants were of type S, and of these, the majority were STs.
- But 77% of research scientists were NTs.
- In a sample of college students who selected counseling as a major, 77% were NFs.
- And 78% of nursing students were of type F (split between SF and NF).
- In Western cultures such as the U.S., about 75% of the population are extraverts, 25% introverts. These statistics are reversed in Asian countries such as Japan.
Some people are quite taken with Jungian typology. As a result of having taken the test they often feel that they have a greater understanding of themselves and especially of their relationships to others, why others are different, and so forth. Some even claim that this knowledge has changed their outlook and their very lives! But others are skeptical and seem to find this test of no more use than a typical supermarket magazine article with a self-improvement quiz (see, for example, Emre, 2018). (Perhaps the value one finds in the tests is related to one’s type itself!) But as noted, research does show statistically and practically significant results indicating that certain types do gravitate to certain occupations and that type matches and mismatches in intimate relationships can be predictive of success or failure. The constructs thus have some demonstrated utility.

A different criticism has been made by some personality researchers who claim that types represent only extremes and that most of us are somewhere in the middle on these typology scales. In fairness, tests like the MBTI and Keirsey also give continuous variable scores on each bipolar dimension as well as type classification. But on the other hand, Jung’s theory posits that individuals are essentially of one type or another, and that these preferences determine the characteristic ways in which they interact with the world. The notion of discrete types is also important in his ideas about psychological development, as will be seen subsequently.

**Jung on Personality Development**

**The Developmental Process**

Jung likened human development to the development of any organism. A person begins as an embryo or “seed” that represents life undifferentiated at the beginning, but throughout the course of development unfolds or becomes more differentiated (in both biological and psychological senses of the word). Jung’s approach, like that of Maslow and Rogers (considered later in this section) was organismic in that he saw the process of development as going from an undifferentiated state into one that was increasingly integrated or consistent and unified, thus his emphasis was holistic. The ultimate goal of personality development was the achievement of selfhood,
self-realization, or a state of completeness or wholeness – though Jung realized that full attainment of the self is never complete: the quest for selfhood is always necessarily imperfect. But some people come closer to this goal (or are more integrated) than others.

A life well-lived was for Jung (as for Socrates) a well-examined one. Development of the self he considered a life-long process. It is not surprising that with Jung’s inward orientation he saw integration of the personality in terms of increasingly bringing more unconscious parts of ourselves into conscious awareness. The competent therapist could facilitate this process by helping a person understand their dreams or by any other means that brings the patient in contact with his/her unconscious thoughts and feelings. The more difficult road, of course, is to undergo this process alone (as Jung did), rather than with the aid of a therapist or with the help of some other “wise counselor.”

**Individuation and Differentiation.** The process of individuation for Jung was the development of all the different potential aspects of one’s personality in the journey to selfhood. Jung’s emphasis was on development of wholeness or completeness rather than development of “goodness” (don’t overlook that “shadow side”!). Neurosis occurs as a stifling of individuation, in which a part of the personality remains undifferentiated from the rest (e.g., the archetypes of the anima, animus, persona, or shadow; or one of the attitudes or functions).

Individuation implies the separate development of a number of different personality aspects, some of which may appear to be in opposition (e.g., introversion and extraversion or thinking and feeling). Such development Jung referred to as differentiation (a complementary process to individuation; individuation refers to the growth of various aspects of one’s self, differentiation refers to their distinctiveness). But ultimately the self is perceived as a psychological whole.

Jung saw individuation as an inner process that occurs in everyone, universally, which does not require any external impetus – though external forces may inhibit it. For example, Hall and Nordby (1973) suggest that “the modern world provides inadequate
opportunities for the shadow archetype to become individuated” (p. 83; also see Jung, 1957.)

**The Transcendent Function and Integration.** How did Jung reconcile this development of many parts with the idea of the self as a whole? By introducing the concept of the *transcendent function* in which psychological opposites are united. For Jung this meant uniting conscious perceptions with unconscious ones. This transcendence takes place when the conscious mind confronts the unconscious (e.g., with the help of a Jungian analyst), resulting in a new level of understanding that unites concepts that were previously at odds.

Consider the example of a man who learns to develop his anima (feminine side). Such a man “. . . is *not* one whose behavior is sometimes masculine and sometimes in the feminine mode. He is *not* part man and part woman. Rather, a true synthesis between opposites has been achieved so that it may be said transcendence has abolished gender except in a biological sense” (Hall & Nordby, 1973, p. 85). *This is a powerful statement!* While it is unlikely that any male completely transcends gender, it is possible that he can transcend gender stereotyped roles by embracing his feeling side, and can thus become more fully human (or integrated). Needless to say, a similar potential exists for a woman. But how many of us really reach such a level of integration?

Jung believed that the transcendent function is often realized symbolically in dreams in which opposites are co-joined. Dream symbols of transcendence include the hermaphrodite (person of balanced gender) or perhaps a dream of a wedding (as in the “marriage or joining of opposites”). Indeed, Jung thought that there was an archetype of the “royal marriage” (which he also termed the *hieros gamos*, a Greek phrase). Perhaps the public’s fascination with royalty (as in the frequent tabloid references of the real lives of the British royal family) is unconsciously reflected by such concerns! Certainly the *hieros gamos* is the stuff of many a fairy tale.

**Jungian Stages of Development**

Jung (1931/1960) divided the lifespan into four major stages: Childhood, youth, middle age, and old age. But basically Jung saw a
dichotomy between the tasks of youth and those of the later years, beginning with middle age (about 35-40 years).

**Chasing Your Shadow**

In Jung’s psychotherapy, “shadow work” is paramount. This means confronting the darker parts of yourself that have been repressed. Attending to your dreams can be helpful—that bear chasing you through the forest, or a dark figure you’re struggling with could be a clue. In Jung’s psychology an archetype can be represented as a symbol (such as a dark figure in a dream).

Recall that Jung painted his vision of his shadow in the form of a brown dwarf. Have you thought about imaging your own shadow archetype, or perhaps putting a pencil to paper and drawing it? The author’s drawing representing his shadow self, “seeing red,” is illustrated below.

(Looks pretty fierce from a mild-mannered man, doesn’t it?)

**The First Half of Life.** In early childhood the infant has little notion of the self, but as the ego develops and the infant’s conscious awareness of its environment increases, children first seem to see themselves in the third person, as though they were objects (not unlike Piaget’s ideas per Chapter 3). Later their sense of themselves as separate beings increases as the beginnings of selfhood start to show themselves. From a Jungian viewpoint, the rest of one’s life can be seen as a process of increasing this self-awareness and self-knowledge – a process that is obviously more complete in some than in others.
Youth. Youth is the period from puberty until middle age. As with Freud and Erikson, Jung saw puberty as a time in which the adolescent’s conflicts concern the need to cling to the childish needs and dependencies of the past which clash with the simultaneous need for adult independence. Jung would probably not have quibbled with Erikson’s characterization of this stage as one of identity versus role confusion. And as with Erikson, Jung saw young adulthood as a time of establishing a family and career. Jung believed that during this time behavior was largely guided by societal demands. Men typically learn to assume masculine careers and male parenting roles, and women feminine family and career roles. In coming to grips with these external demands, Jung saw extraversion as the required attitude (and therefore extraverts make a better adjustment during this phase). People thus tend to be somewhat one-sided in their psychological development during the first phase of life. They also rely very much on their dominant attitude and dominant function.

The Second Half of Life. At middle age the individual has, presumably, accomplished many of her/his major life goals pertaining to career and family. This is the time when people begin to search for something more as they look inward and take stock of themselves and where they will be going for the rest of their lives. Now introversion takes precedence as the needed function for accomplishing this task (and introverts, at last, have the advantage). The individual often becomes more involved in community affairs, and artistic endeavors (compare to Erikson’s generativity). But this is also a time for increased self-discovery, which for Jung meant expanding the self, in part by getting in touch with one’s unconscious thoughts and desires. Ideally, one would learn to discover and exercise one’s previously ignored functions – the sensing woman develops her intuition; the thinking man develops his feeling side; women relate to their animus and develop their masculine attribute; and men to their feminine (anima) side.

Jung especially enjoyed counseling patients at this age because he could help them discover and explore these different sides of themselves. He used dream analysis as one technique for doing this,
because he felt (as did Freud) that dreams were the key to the unconscious mind; but whereas Freudian interpretation involved themes of sex and aggression, Jung strove more to help people find personal meaning. This personal search did include identifying complexes or personal conflicts, but also helping people to discover (or uncover) more of the totality of the self that was within their reach – so partly this involved identification of archetypical elements in dreams.

At the time of middle age, many (if not most) people encounter what Jung termed a midlife crisis. A person realizes that the goals of the first half of life are completed (or are at least under control), but then begins to ask “now what?” The accomplishments that a person has achieved have usually come at some cost; for in bowing to social convention, something of the individual may have been lost. It is at this point that the woman may turn toward her animus, the man to his anima. Jung’s advice is to listen to one’s dreams, to the unconscious, and to try to learn from this listening.

How one actually handles the midlife crises varies considerably from person to person. Some people handle this period with more grace than others. But it can be a conflict and a struggle, sometimes resulting in a person’s complete remaking of their life. For example, a man who is anxious about his lost youth may leave his wife and family for another, younger woman. Maybe the man buys a red sports car (think of the Kevin Spacey role in the film “American Beauty”). Women have also been known to leave their families for another life, though perhaps less commonly. But for many people this is more a time of inner change than of outer restructuring.

The second half of life for Jung was a time of confronting the fact that life is finite – we all must come to grips with the fact that we will eventually die – and coping with this reality became the primary task, especially in old age. At this time of life Jung believed that people search for a greater degree of spiritual connectedness. For Jung this meant not only examining one’s life but also trying to see one’s place in the world. Is there an archetype of the eternal? Jung thought so, and thus he believed that people at this age necessarily attempt to form an image of an afterlife. Although Jung wavered on whether or not there might be an actual afterlife he nonetheless thought that this kind of
striving and imaging was not only necessary but a healthy part of living a full life.

Evaluating Jung

Archetypes and the Collective Unconscious

Jung’s biggest idea, which was that of the collective unconscious and its archetypes, is also his most controversial. It is difficult to verify that such a thing exists, although indirect evidence of archetypes abounds in cultural myths and symbols, and in dream symbols. Other indirect support comes from the observation that certain phobias are much more common than others: fear of the dark, of heights, and of snakes. All of these have potential evolutionary adaptive functions – the nighttime is when peoples of old were most vulnerable to predators, and heights and snakes can both be quite dangerous to the incautious. Are our fears of these dangers based on some kind of innate patterns or forms similar to archetypes? Seligman (1971) suggested this possibility.

Whether or not one believes that the persona, anima/animus, shadow, and self are truly universal archetypes these concepts are still quite useful. While the author knows of no research into the potentially negative effects of identifying too strongly with one’s public image (persona) this appears to be a legitimate if under-exploited area for further study. The same might be said of the shadow side of one’s personality. But psychologists readily concur with Jung that men and women are to some degree androgynous (i.e., have qualities of both sexes). Some theories of mental health posit that well-adjusted, psychologically balanced people are those who have integrated characteristics of the opposite sex into their personalities (e.g., Bem, 1974; Spence, Helmreich, & Stapp, 1974).

Other Jungian Concepts

Jung believed that the reality of paranormal phenomena (extrasensory perception) could be confirmed scientifically, citing the pioneering laboratory studies of J. B. Rhine. But Jung’s beliefs in paranormal phenomena have never been verified by careful scientific
scrutiny under controlled laboratory conditions. Jung has also been criticized for his tendencies toward obscurity and to mysticism.

On the other hand, many of his ideas have been more fruitful from a scientific standpoint. These include the formulation of his psychological types, but especially his delineation of introversion and extraversion; his projective techniques of word association and physiological measures of skin conductance as indicators of anxiety or more deep seated problems; his notion of the midlife crisis; and his concept of realization of the self. The latter, it seems, is reflected in ideas of self-actualization in the humanistic psychologies of Maslow and Rogers. Yet Jung is never cited by these writers as a direct influence on their thinking; nor is he generally credited with being the first major “self” psychologist. But perhaps his influence on these writers was indirect.

The Darker Sides of Jung

**Jung Against Freud.** In the earlier days of the Third Reich Jung supported some of the National Socialist ideology. At least for a brief time he played into the hands of these ideologists as when he wrote anti-Freudian polemics, which described Freud’s psychoanalysis as “subversive,” and referring to its “smutty-mindedness” (quoted in Stern, 1976, p. 218). Stern (p. 217) states that “The reigning politics [National Socialism] having evidently put wind in the sails against his former mentor, Jung sets the ‘Aryan’ unconscious against the Jewish counterpart.”

Did Jung sincerely believe that there was such a thing as a Jewish racial psychology that could be contrasted with a German one, or was Jung mainly making a personal statement reflecting his rather strong anti-Freudian sentiments? Jung later distanced himself from the Nazi thinking and he also had many close Jewish associates who adhered to his own school of analytic psychology. Jung strongly denied any ties with anti-Semitism but still railed at “Freud’s brand of soulless materialism” (Stern, p. 219). In any case many of Jung’s Jewish followers stuck by him and accepted his explanations, and today there are many Jewish practitioners of analytic psychology that seem to be reconciled with Jung in spite of these earlier remarks. Clearly he supported Jews who had been victimized by the Germans, and treated
many Jewish refuges without charge (including his protégé Aniela Jaffé; Bair, 2003). But there are also those who reject Jung for his alleged Nazi associations. Stern was not the only writer to suggest that Jung never got beyond the trauma of his split with Freud, “the spiritual father that he loved and hated” (Stern, p. 220). Kaufmann (1980/1992) was of the same opinion, noting that Jung’s painting of Philemon, his “wise old man,” bore a remarkable resemblance to Freud. He also believed that one of Jung’s last major works, *Answer to Job* (Jung, 1952), still reflected this inner struggle. Briefly, in this work Jung claimed that Christ in the New Testament of the Christian Bible fulfilled the need for a God-figure that lacked the vindictiveness of the self-obsessed Old Testament God, Jehovah – who persecuted poor Job on a whim (a wager with Satan). But Kaufmann believes that “In *Answer to Job* the Jewish Father [“Freud”], in the Old Testament, can do no right while the Christian Son [“Jung”], in the New Testament, can do no wrong. [Therefore] Jung is still fighting Freud” (p. 419, emphasis added).

A thoroughly researched treatment by Deidre Bair (2003) places Jung in a more sympathetic light, especially regarding newly uncovered details of Jung’s life before and during the war years. Bair finds him less culpable than have others in terms of both his alleged Nazi sympathies and his attitudes toward Jews. Of related interest, it has now come to light that Jung secretly advised Allen Dulles, of the U. S. Office of Strategic Services, on German activities through his Swiss contacts. (Dulles would later head the C.I.A.) Jung was thus an “amateur spy” for the U. S. during the war!

**Did Jung Experience Psychotic Episodes?** Jung may have experienced psychotic episodes following the break with Freud which included full-blown hallucinations very much as are seen in some types of schizophrenia, or by ordinary people after taking psychotropic drugs like LSD. What is remarkable is that he seemed to be able to step in and out of these unusual states of consciousness; he had one foot in reality by anchoring his sanity to his connections with his family and in his practice; but he feared going too far and virtually losing his mind. This fear was well-grounded: Anyone familiar with schizophrenia will understand that Jung was walking a dangerous path
in these experiences. Yet Jung believed that mental illness was not qualitatively different from ordinary experience. To understand psychosis Jung believed that the psychiatrist must be able to project him or herself into a similar (or at least a sympathetic) frame of mind. He also believed that the hallucinations experienced by a schizophrenic were not random mental events but rather like dreams in that they reflected a person’s inner world – their needs and anxieties. Thus interpreting these hallucinations was a step toward helping, if not curing, the patient. A similar viewpoint was advocated later by the psychiatrist R. D. Laing (e.g., Laing, 1960) who also believed that the inner world of the psychotic could be meaningful and must be dealt with by the psychotherapist.

**Putting Jung into Perspective**

In terms of the development of the person through the life cycle, Jung like Erikson stressed the entire lifespan, even though Jung’s focus was more centered on later life development – from middle age onward. Also like Erikson his writings on psychological development often seemed more like poetic description than rigorous science. The contributions of both of these two men are similar in that their conceptualizations of development provide a comforting framework for viewing growth processes: Jung’s individuation and self-realization and Erikson’s generativity and wisdom of old age are both positive outcomes of aging that most people can relate to. Jung’s belief that people have in their nature a spiritual side – an aspect of personality he believed was either neglected in modern times or mistreated in fundamentalistic and literal ways – resonates with many people as well. There are a great many practicing Jungian therapists today as this form of therapy seems to appeal to a wide following. Perhaps one reason is that Jung placed so much emphasis on self-realization, including the search for a sense of meaning and for spiritual connectedness. Indeed, Jung’s influence on religious thought and practice has probably been as great as that of his influence on the field of psychology (e.g., Stein, 1985).
For Thought and Discussion

1. Try to think of a dream you had that seemed numinous in the sense described by Jung; a dream that seemed to leave a lasting impression. Consider the characters in the dream and whether they might represent archetypes, and/or different aspects of your own personality.

2. Think of some recent popular movie titles. In each of these films, try to identify archetypical characters (hero, shadow, etc.).

3. Political analysis: Think of some prominent politicians (e.g., Bill Clinton; George W. Bush; Donald Trump). Do you think that a Jungian analyst would see in their personalities the archetypes such as the hero, shadow, or persona? How so?

4. Do you know your psychological type, using the MBTI framework for identifying the 16 possible typologies? Do you find that you clash with people of very different types? Can you give examples?

5. Have you had a midlife crisis yourself, or has someone who is close to you, such as a family member, undergone such a crisis?

6. Compare and contrast Jung and Erikson on the stages young adulthood through old age – how are they similar and how are they different?

7. Who appeals more to you as a theorist, Freud or Jung? Why?
Notes

3. “Objectively known”: Not in a scientific sense, but as generally believed by the person.
5. These paintings as well as a number of mandala symbols are excellently reproduced in Jaffé, 1979.
6. For an interesting account of the legend of Tristan and Iseult and their fateful romance as a paradigm for romantic love (or Jungian struggle between anima and animus), see Johnson’s We (1983). Also see Sanford’s (1980) The Invisible Partners.
7. The figures of Christ or Buddha are sometimes viewed as having attained the kind of perfection of self that most mortals cannot achieve; indeed, Jung used these as models of self-hood. For an account of Christ as a well-integrated, balanced individual in the Jungian sense, see Sanford, 1987.
8. Sharon von Lentz (1983) found the following correlations of the continuous, bipolar dimension of the MBTI Thinking-Feeling scale with (a) biological sex (females higher on feeling) of $r = .39$, $p < .001$; (b) with masculine instrumentality (Spence, Helmreich, & Stapp, 1974), $r = -.48$, $p < .001$, and (c) with feminine expressiveness, $r = .35$, $p < .01$.
9. Organismic theory in psychology stresses the unity and wholeness of the person and the personality; organismic theorists believe, for example, that one cannot meaningfully study perception, thinking, learning, etc., as totally separate systems. This approach characterized the Gestalt school as well as psychologists such as Adolf Myer and Kurt Goldstein. Goldstein was the first psychologist to popularize the concept of self-actualization.
10. Jung was not the first psychologist to use word association and skin conductance methods but he appears to have discovered these independently, and he did the most to popularize the former technique.
16. The Humanists: Maslow and Rogers

The science of psychology has been far more successful on the negative than on the positive side; it has revealed to us much about man’s shortcomings, his illnesses, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his psychological height. It is as if psychology had voluntarily restricted itself to only half its rightful jurisdiction, and that the darker, meaner half.

-Abraham Maslow

I have found that the more that I can be genuine in the relationship, the more helpful it will be. This means that I need to be aware of my own feelings, in so far as possible, rather than presenting an outward façade of one attitude, while actually holding another attitude at a deeper or unconscious level. Being genuine also involves the willingness to be and to express . . . the various feelings and attitudes which exist within me. It is only in this way that the relationship can have reality . . . It seems extremely important to be real.

-Carl Rogers

I. Abraham Maslow

Peak Experiences

Abraham Maslow is remembered for his many contributions to psychology. Most students learn about his hierarchy of needs in their first psychology course, even, perhaps, in a high school class, and the notion of self-actualization, though not uniquely associated with Maslow, is probably as strongly tied to his name as it is to any other theorist – the possible exceptions being Kurt Goldstein and Carl Rogers. Both of these concepts are considered in due course. But in addition to these, Maslow’s (e.g., 1964) concept of the peak experience was and remains one of his most intriguing contributions.

Peak experiences are what they sound like: Something out of the ordinary happens to a person that transcends everyday experience, which leaves a long-lasting and perhaps permanent impression in
one’s mind. These experiences are characterized by a sense of wonder or of awe. By definition, such experiences occur rarely for most people, yet most if not all people have had them at least once or twice in their lives; although Maslow believed that peak experiences are more common among truly self-actualized people.

A peak experience can be (and often is) one that the perceiver describes as “spiritual,” a word that seems to trouble psychologists because it is very hard to define in any objective way. Because such an objective definition is difficult, perhaps some examples will be helpful. The following are descriptions of peak experiences of children, taken from Hoffmann (1992), which describe childhood experiences of a spiritual nature as later recalled by adults.

**Example 1: The Wonder of Nature.** At age 13 Elaine took an automobile trip with her parents through the Canadian Maritime province of New Brunswick. She was riding in the back seat of her parents’ car with her younger brother and sister, who were dozing as her parents were talking to one another in the front of the car. Elaine relates that “I suddenly saw a wide river opening up into a seemingly infinite bay or ocean. The scene’s grandeur overwhelmed me. The surprising and dramatic expanse of water reminded me of infinity, of the universe, and of God … It was an intense and unforgettable moment, but I also experienced a sense of insignificance as a human. I was attracted to the scene by its awesome beauty and simplicity” (Hoffman, 1992, pp. 26–27).

But Elaine’s further comments seem even more remarkable: “The seeds of my entire outlook on life were planted within me that day…Remembering it still gives me a sense of life’s harmony and fulfillment: how life flows naturally to its end, to join in Infinity. The Eternal Presence is always with us.” (p. 27).

Elaine further related that: “In retrospect, I only wish that I had shared my thoughts with my parents and siblings, and not felt superior to them because of my experience” (p. 27). But one must realize that such experiences are seldom shared. It is not so much that it is selfish to keep a peak experience to oneself, but rather it is simply that relating such experiences can at best be appreciated second-hand, and
then only by someone who has themselves had peak experiences of their own.

But peak experiences are not always ecstatic; they can arise from harrowing experiences as well, as in the next case.

**Example 2: A Near Drowning.** Ellen recalled a childhood event at a beach. A very good swimmer, she nonetheless was caught in an undertow which pushed her a lot farther out than she had ever gone before. Only after the second time she was dragged away from the shore did she begin to panic, and to attempt to swim away from the flow as hard as she could.

“...I got scared as I realized that I was in real trouble and there was no one around to save me...I was getting more and more frightened, but I hadn’t panicked yet, probably because I felt that I was such a good swimmer. Suddenly I went under and stayed under longer than I had before, and then I panicked. I was frantic. I felt myself thrashing with fear, and then suddenly I distinctly heard a voice inside me saying, ‘Why don’t you just relax and let the waves carry you? It’s safe.’ The voice had no age or gender—I felt as if— and this will sound strange—the water were talking to me, telling me what to do. Maybe it was a higher wisdom inside myself...I felt strongly that if I followed the advice, I would be all right. At the same moment I lost my fear of death: I felt that beneath the rolling waves, which has a kind of violence to them, there was an underlying calm and gentleness...What happened was that I ended up going toward the rocks, and then someone saw me and yanked me in. My body got cut by the rocks, but I didn’t even feel the pain while I was in the water” (Hoffman, 1992, p. 75).

Ellen felt that this was a truly important and meaningful experience in her life. Years later when she was dealing with many tough personal issues as an adult the psychological feeling of “drowning” (in personal problems) came over her, and that is when the message “Let the waves carry you. It’s safe” came back over her once again. This message became a kind of mantra for Ellen that she used to find calmness in her life whenever she found herself in the midst of “a sea of troubles.”
Catching the perfect wave while surfing on a bright summer morning, feeling the magnificence of a sunrise or sunset, or just an overwhelming feeling of being in touch with nature or with one’s deepest self; these are other examples of peak experiences. People sometimes report religious experiences as profoundly affecting them and even changing their lives; hence, these qualify as peak experiences. But Maslow himself, though certainly a spiritual person, was not at all religious in a conventional sense. He believed in no higher being or God, which may strike some people as strangely incongruent, given Maslow’s almost mystical depictions of people’s peak experiences. Yet perhaps this isn’t so strange, given Maslow’s childhood history.

Maslow: A Brief Biography

Some aspects of Maslow’s past are especially interesting. One is the fact that he became a great success in his field despite a very unhappy childhood during which he lacked parental support, but especially from his mother. Another is how his early interest in behaviorism seems almost to contradict his later humanistic views; yet Maslow found no contradiction between these two tendencies. Still another is the sheer number of illustrious names in psychology that Maslow came to know in the course of his education and in his later years as a psychologist. His views were shaped to a great extent by many of these relationships. The psychologists he was exposed to could comprise a “Who’s Who” of important names in the field who were working in the United States during Maslow’s lifetime – and a great many of these were refuges from Nazi Germany. Despite these many influence on Maslow, his own psychology was ultimately the product of a very independent mind.

Maslow was born in 1908 in New York City of Russian-Jewish immigrant parents and grew up in Brooklyn. He recalled his father as being distant during his early years, but described his mother as downright cruel and sadistic, as well as selfish and narcissistic, and reported that he kept his sanity only because of the influence of a kindly maternal uncle (Hoffman, 1988). In high school and beyond his cousin, Wil Maslow, became a close comrade and another source
of social support. But as a child his mother constantly threatened him that God’s wrath would strike him down if he did not toe the line. It does not seem surprising, then, that Maslow rejected religion and became an atheist while only a boy.

In high school Maslow was shy and studious, though he was involved in athletics. Because of his bleak childhood his self-esteem was low and he was also subject to depression. But reading the muckraking author Upton Sinclair inspired him and inclined him toward social activism.

In college he began studying law to please his parents, but did not stay with this field. In a brief stay at Cornell University, Maslow took a psychology course with the structuralist, Edward B. Titchenor. By this time Titchenor’s structuralism had declined in influence in psychology; indeed, Titchenor was viewed as a relic by many. Yet he stuck to his views and lectured in full academic regalia, as befit the old school European professorial ideal – but unfortunately for Titchenor, such formality was viewed as pompous posturing by most Americans.

Maslow became very interested in behaviorism, inspired by the writings of John B. Watson. At the University of Wisconsin he studied psychology under the influence of the comparative psychologist Harry Harlow, known for his research on primate development. Later he worked with E. L. Thorndike at Columbia University. After completing his doctorate at Wisconsin he found a teaching job at Brooklyn College where he met a number of influential psychodynamic psychologists, including Alfred Adler, Karen Horney, Harry Stack Sullivan, and Erich Fromm. Adler was a particularly strong influence on Maslow with his optimistic (especially in comparison to Freud) outlook on humanity, which included an emphasis on altruism and compassion. He was also in sympathy with Fromm because of the latter’s social concerns. Maslow was impressed with socialism, whereas Fromm was taken with Marxism. Like Watson and many other social scientists of the times – including B. F. Skinner – Maslow saw the positive side of progressivism; specifically he held the view that science (and scientific psychology) could be applied to improve the human condition.
Later, teaching at Brandeis University, he met Kurt Goldstein, who introduced him to his concept of self-actualization. Goldstein held holistic views of human behavior. His studies of brain damaged patients and their lack of wholeness taught him a lot about what it meant to be human. Goldstein was one of the most important influences on Maslow’s own developing conceptions of a humanistic psychology.

Maslow was also influenced by the Gestalt school of psychology, which emphasized the “wholeness” aspect of experience, but especially in perception. Maslow knew and was greatly influenced by Max Wertheimer, and studied briefly with Kurt Kaffka, both very well-known Gestaltists. Like many important German scientists, these men immigrated to the United States after Hitler came into power. (Gestalt psychology is not to be confused with Fritz Perls and his Gestalt school of psychotherapy. Maslow was actually quite unfavorably impressed with Perls.) Maslow also got to know the renowned cultural anthropologists Ruth Benedict and Margaret Mead through Horney’s institute in New York.

Maslow died in 1962 of a heart attack while living in semi-retirement in California. He had, unfortunately, suffered ill health for many years prior to his death.

On Humanism

Maslow called Humanism the “third force in psychology because he saw behaviorism as the dominant force in academic psychology for much of the early and mid twentieth century, and psychoanalysis as a second influential force. He viewed both of these movements as reductionistic. Behaviorism reduced human understanding to the study of overt behavior in response to environmental stimuli and specifically excluded the study of consciousness and internal states (e.g., needs, motives, values). Moreover, the radical behaviorists such as Skinner who emphasized determinism saw no place for choice in human behavior. And psychoanalysis saw behavior as controlled by unconscious forces that are largely beyond human control. By contrast, humanism concerned itself more with the conscious mind and with choices influenced by personal values and intentions. In
other words, humanism attempted to put the person, as usually conceived, back into psychology.

In the late 1950s Maslow and Clark Moustakas convened invitational conferences to found the American Association for Humanistic Psychology (AHP). Among those participating were Gordon Allport, J. F. T. Bugental, Charlotte Buhler, Maslow, Rollo May, Gardner Murhpy, Henry Murray, and Carl Rogers; and notably Maslow, Rogers, and May remained the leading figures in humanistic psychology (AHP, 2014). Reflecting Maslow’s views on human nature, “Humanistic psychology…holds a hopeful, constructive view of human beings and of their substantial capacity to be self-determining …. [Humanistic psychology stresses] choice, creativity, the interaction of the body, mind, and spirit, and the capacity to become more aware, free, responsible, life-affirming and trustworthy” (O’Hara, undated). As will be seen shortly, the striving after these values can be summed up in a word: Self-actualization. Maslow’s views on self-actualization are best understood in the context of his hierarchy of needs and also by his psychobiographical studies of self-actualized people, which comprise the next two major sections.

**Kurt Goldstein and Organismic Psychology**

In the holistic health movement the focus is on treating the whole person rather than the specific symptom. Kurt Goldstein (1978 – 1965), a German-Jewish psychiatrist who immigrated to the United States in 1934 to escape anti-Semitism in Europe, learned to view all organisms holistically. Through his studies of brain-damaged veterans of the First World War he observed that aphasia (inability to speak correctly), due to an injury to one part of the brain, disrupted the cohesiveness of the entire personality. He found that aphasics lost some of their abilities to think logically and abstractly, and consequently they often suffered mental breakdowns from their frustrations in attempting to cope with the environment. Only through time and training could victims learn to compensate for this loss.

From these studies Goldstein came to understand the extent to which the organism cannot be conceived as bundles of separately
functioning parts. Each part of the brain is not an isolated unit with a specific function but depends upon its interactions and connectedness with the rest of the brain; and indeed, with the whole of the biological organism. This is the basis of organismic psychology, and Goldstein – though not the only organismic psychologist – was its most noteworthy advocate. His conclusions anticipate modern neuropsychological findings that no area of the brain is completely localized in its functionality.

Goldstein’s organismic approach stresses the unity and integration of the whole organism as a complete biological entity. Goldstein believed that even a local spinal reflex cannot be understood as an isolated mechanism. And a psychology built upon a series of reflexive associations (i.e., the associationism of Locke and his descendents, the behaviorists) could never completely explain thought or behavior. Hence organismic theory stands in sharp contrast to such atomistic or reductionistic views. It is rather more consistent with the position of the Gestaltists (though Goldstein thought that Gestalt psychology was limited by its focus on mainly perception and consciousness). Goldstein certainly agreed with the Gestalt position that “the whole is more than the sum of the parts.” Goldstein’s ideas were important influences on both the Gestaltists and the humanists.

For Goldstein (1934) the single over-riding motive for all human behavior was self-actualization – an organismic (or holistic) motive – or “…the organic principle by which the organism becomes more fully developed and complete” (Hall, Lindzey, & Campbell, 1997). Maslow admired Goldstein’s ideas and hired him to teach at Brandeis University in the 1950s while chair of the psychology department. It is from Goldstein that Maslow derived his own ideas about self-actualization, though his formulation was somewhat different. Indeed, Goldstein’s concept is in actuality closer to that of Carl Rogers.

**Hierarchy of Needs**

Maslow (1943) classified human needs into a hierarchical category (Figure 16.1). The needs closer to the base of his pyramid
are the most basic survival needs, which are also physiological needs, such as the need for nutrients (food), for water, for oxygen, and for sleep and rest, and for the elimination of wastes. He also included the need to reproduce, or sex, in this category. All of these needs must be met as a minimum in order to simply exist as individuals and as a species.

Closely tied to these basic needs are the needs for safety, security and for shelter, found at the next level. In today’s society these needs would include having a residence (as opposed to being transient or homeless), living in a safe neighborhood, perhaps having health and medical insurance, and maybe even some degree of job and pension security.

At the third level from the bottom of the hierarchy or the belonging and love (or social) needs. These include the need for family and friends, love and companionship, and a sense of community. For some people these needs are fulfilled in part by membership in a club, a church or synagogue, a fraternity or sorority, and so on.

At the next level come the esteem needs. Maslow actually divided this level into two tiers, or sub-levels. At the first was the need for esteem from others (reputation), which includes recognition, respect, status, dignity, perhaps deference, or even simple attention. Maslow included the need for self-esteem, and especially of self-respect, at a second or higher level. (Note that personal achievements and accomplishments may impact both of these levels.) Maslow’s concept is that the lowest order of needs (toward the bottom of the pyramid) must be satisfied before the higher needs can be properly met. It is hard to experience self-esteem, for example, if you one has no place to live. But all of the needs encountered so far Maslow termed deficiency or D-needs, because without them people are incomplete and unsatisfied. He also claimed that these deficiency needs were instinctoid, or instinct-like (Maslow did not think that humans were as strongly motivated by instincts as were other mammals).

At the highest level Maslow placed the need for self-actualization, which he called being or B-needs (or alternatively, metaneeds). In other words, once all of one’s basic needs are satisfied one can
endeavor to satisfy even higher human needs which are more intrinsically (internally) motivated and less tied to external desires.

Maslow believed that only a small number of people (about two percent) of the population are truly self-actualized. Self-actualizers embrace **B-values**, which include those values listed in Table 16.1.

Maslow believed that the needs at one level must be at least partially satisfied before one could attend to the needs at the next highest level. If a person’s safety needs are not adequately met, for instance, he or she is unlikely to be able to make much headway in satisfying interpersonal needs. There are obvious exceptions, however. Consider as an example a woman who excels technically in her field and who thus receives more than adequate recognition for her work (esteem needs), but who is quite frustrated with her lack of social success (belongingness and love needs). Indeed, achievement at her job might at least partially compensate for her lack of success in the personal sphere.

Maslow also realized that a person could be “stuck” at a lower level in the hierarchy (cf., Freudian fixation). Thus a hoarding tendency might develop in a person who had difficulty obtaining food as a youth.

**Characteristics of Self-Actualized People**

In order to study self-actualization Maslow (1950) conducted biographical studies (case studies) of the lives of famous people that he believed were self-actualizers. Some of these people were alive at the time Maslow studied them, others were historical figures. Examples included Albert Einstein, Eleanor Roosevelt, Abraham Lincoln, Jane Adams, Harriet Tubman, William James, and Henry David Thoreau. He also studied some people who were not well-known whom he believed to be self-actualizers.
Based on these studies Maslow concluded that self-actualizing people shared some common characteristics. But it is important to note that not all of these people share all of these traits, and also that many people who are not self-actualized in Maslow’s sense may exhibit some of these traits. These caveats should be kept in mind while considering these characteristics.
A Listing of the Characteristics of Self-Actualized People

In addition to the tendency to have more peak experiences, Maslow also recognized these characteristics of self-actualized people.

Table 16.1
Values (or Metaneeds) of Self-Actualized People (Maslow, 1950)

- Truth (versus falseness)
- Beauty (versus vulgarity)
- Goodness (versus evil)
- Wholeness or unity (versus disintegration)
- Aliveness (versus ennui)
- Uniqueness (versus sameness)
- Perfection (versus haphazardness)
- Completion (versus incompleteness)
- Justice (versus injustice)
- Simplicity (versus unneeded complexity)
- Richness (versus impoverishment)
- Playfulness (versus lack of spontaneity)
- Effortlessness (versus strain)
- Self-sufficiency (versus dependency)
- Meaningfulness (versus senselessness)

- **Reality centered:** Self-actualized people see reality for what it is and are not easily taken in by phoniness or inauthenticity. They are also more comfortable than most in the presence of doubt or of ambiguity.
• **Acceptance of self, others, and nature:** They accept their shortcomings as well as their strengths and they are accepting of others as well. Acceptance of people and nature includes the recognition that everyone grows old and dies.

• **Problem centered:** Most people tend to see the problems of others and of the world in terms of themselves and their own problems. In this sense, most people are egocentric. But unlike most others, self-actualized people are more detached and objective; and less concerned with trivial aspects of problems.

• **Spontaneity, simplicity, and naturalness:** Self-actualizing people tend to act more in accord with their feelings than in accord with convention. It isn’t that they are trying to be unconventional; it is merely that their actions are more natural and unaffected by social trends or a desire for acceptance.

• **Need for solitude:** Self-actualizers are comfortable in their own company and can even seem detached. They are comfortable with and by themselves as well as in the company of others, but at times they seek and enjoy solitude.

• **Autonomy.** By autonomy Maslow meant a resistance to the forces of the external environment, including one’s culture. As one example, self-actualized people are not greatly influenced by the latest cultural trends or fads. Thus it follows as well that they also have . . .

• **Resistance to enculturation:** Self-actualizers are not aloof (though to some they may seem so) but they are not really anti-social. But they do tend to be independent-minded and are less likely to be influenced by particular cultural mores and practices. They are often social activists who are interested in improving cultural conditions rather than by following the norms of a particular culture or society.
• **Freshness of appreciation:** Self-actualized people can see the simple wonders of life and nature with a profound sense of awe – and this applies to not only to new experiences but to familiar ones as well, whether it’s enjoying the garden or viewing a flame-red sunset.

• **Gemeinschaftsgefühl:** This German word was used by Alfred Adler to connote a sense of social interest or of community. It implies identification with humanity and a sense of compassion toward others. No small thing, this idea!

• **Depth of interpersonal relations:** While compassionate and nurturing (*Gemeinschaftsgefühl*), self-actualized people also tend to have very deep relationships with a few people, rather than a number of shallow relationships with many people.

• **Democracy:** Given that self-actualizers tend to be compassionate it isn’t any surprise, then, that they are also accepting of people of many different backgrounds (today’s word is *diversity*). They tend to be accepting of surface differences, and of differences based on ethnicity or culture, and focus instead on what we as people from different backgrounds have in common – our humanity!

• **Different means-ends perception:** Self-actualizing people usually have a very discriminating sense of ethics. They have a very clear idea of right and wrong, and therefore do not believe that “the end justifies the means.” There are many different ways of putting this (e.g., “two wrongs don’t make a right”), but the essence of the argument is that it is wrong in general to commit a crime or unethical act in order to justify the greater good.

• **Philosophical humor:** Self-actualizers tend to have a sense of humor that does not denigrate others or by implication involve a laugh at someone else’s expense. They do not relate to put-downs. But they can often find humor in the foibles of human beings in general, including some of the absurdities in life, or occasionally
they may laugh at their own foolish “misteaks” – but without denigrating themselves.

- **Creativity:** Maslow implies that self-actualizers are creative almost by definition. Virtually all of the famous self-actualizing people (as well as the ones who did not achieve fame) were creative in some aspect of life: Art, politics and statesmanship, writing, architecture, and so on.

**Maslow and Human Development**

Maslow’s theory, though basically one of human needs, also addresses issues in the development of the self. For Maslow, development unfolds as the challenges in life are met per his hierarchy. Thus people in less developed (third world) cultures may have difficulty getting beyond the basic survival and safety needs. In many parts of the world this is true even today. Yes, *Homo sapiens* is a social species, so it is hard to imagine that at least some of the societal needs are not being met in such cultures. But it is also feasible to suppose that most energy is spent in satisfying needs closer to the lower end of the triangle.

In wealthier and more developed cultures children progress through the two lowest stages within the first year or two, and are already learning to satisfy some of their basic social needs while still in toddlerhood. In the main, esteem needs come later – most strongly in adolescence and later life.

Development in humans, Maslow believed, is in response to inner urgings. These urgings are usually deficiency drives, corresponding to the first four levels of his hierarchy, but they can also be being drives, but especially in those who have met most of their basic needs.

Maslow saw most adults as centered primarily at the level of esteem needs and not at the higher level of self-actualization. Yet advancing to the self-actualized level is his ideal for development in humankind. These strivings for self-actualization occur most strongly in midlife (cf., Jung’s midlife crisis, Chapter 15). If not everyone can reach this level, most people can still benefit from the rewards of satisfying at least some of their *B*-needs.
Critique of Maslow

Research on Self-Actualized People

Maslow’s theory of needs seems sketchy and his data somewhat incomplete. After all, his studies of self-actualized people were based on a small, selective sample of people that in his own mind were self-actualized. This makes his reasoning seem circular, in that first he decided which people he believed were self-actualized, then he defined this term according to common characteristics that he identified when studying them. There is indeed much that is subjective in Maslow’s methodology.

Bias toward Western Values

A related critique is that Maslow’s characteristics of self-actualized people are rather heavily weighted toward Western conceptions of individualism (as opposed to non-Western collectivism; see, e.g., Marcus & Kitayama, 1991). Consider, for example, Maslow’s criteria of autonomy, solitude, resistance to enculturation, and democracy. Could one not conceive of a non-Western form of self-actualization, or at least one that is weighted less heavily on individualism? What would self-actualization mean to a Taoist or a practitioner of zazen (Zen meditation)?

Art versus Science

Maslow, however, recognized the limitations and shortcomings of his work. If psychology can be an art (think of Erikson, Chapter 9) as well as a science, Maslow saw himself more as an artful practitioner. His extensive background in psychology, including his earlier interest in behaviorism, prepared him to recognize and appreciate the more rigorous, scientific side of psychology. But he chose to be an originator, the founder of a movement, who was more concerned with painting broad brushstrokes in his writing than with exacting detail. Rather, Maslow hoped that others would eventually close the gaps in his theory and fill in these details. Perhaps it is unfortunate that not much further research has been done with either his hierarchy of
needs, nor with the studies of the characteristics of self-actualized people.

**Hierarchy of Needs**

Also, Maslow’s notion that, by and large, lower-order needs need to be satisfied before $B$-needs can be addressed seems contrary to fact. For example, Boeree (1998) gives examples of highly creative and productive people who were self-actualized by many of Maslow’s criteria yet who suffered from extreme deprivation of $D$-needs – in fact, they were in German concentration camps! Jacow Trachtenberg developed his method of speed mathematics and Viktor Frankl his existential theory of psychology and psychotherapy, both while in this dreadful environment. The bigger issues is whether or not one can function at a higher level in the hierarchy without having lower levels mostly satisfied; common sense might suggest not, yet counterexamples can obviously be found.

**Different Conceptions of Self-Actualization**

Most psychologists, including Goldstein and Rogers, consider self-actualization to be a striving within all of us that is met to one degree or another. Just as Jung would say that no one ever achieves total realization of the self\(^5\), most humanists would agree that it is meaningless to talk of becoming completely self-actualized. Maslow’s dichotomy separating “self-actualized” people from the rest of us therefore seems rather artificial.

**A Perspective on Maslow’s Contributions to Psychology**

Maslow is rightly remembered as the prime mover in the founding of the school of humanism – psychology’s “third force” – and as such he (along with Carl Rogers and others) influenced the field enormously. The humanists shall always be remembered (at least in American psychology) as the people who put the person back into psychology.

Probably Maslow would wish to be remembered mainly as a “big thinker;” a man who brought a certain philosophical perspective to psychology. And this he did. In fact, Maslow was instrumental in carrying his humanistic ideas a step further. In later life he was co-
founded what is now being called a “fourth force” in psychology that takes a step beyond humanism into the realm of the esoteric and even mystical. He was one of the leading founders of transpersonal psychology (TPP). TPP, taking its lead from humanistic, Jungian, and existential psychology, began with a study of peak experiences, meditative states, and other forms of what Maslow called being-states. But it includes as well a sense of being that transcends or extends beyond the individual self. One definition of TPP offered by Roger Walsh and Frances Vaughan (1993) is: “Transpersonal experiences may be defined as experiences in which the sense of identity of self extends beyond (trans) the individual or personal to encompass wider aspects of humankind, life, psyche or cosmos.” Now that’s a big jump from traditional conceptualizations of psychology!

It would be premature to state that TPP is accepted by mainstream psychology (although it traces its origins to William James, who coined the term “transpersonal” over a century ago; (Ryan, 2008), but just as not everyone embraced humanistic psychology at first – it was seen by many as unscientific and outside of the realm of proper study – it may take some time before these ideas are fully accepted by the field. In any case TPP also reflects Maslow’s legacy, and it comprises an important part of his “Big Picture” of psychology.

II. Carl Rogers

Brief Introduction

Rogers’s name is most often associated with his method of therapy (i.e., client-centered therapy). But Rogers was also a researcher who successfully measured self-concept and was among the first to conduct experimental studies on the outcome of methods of therapy. Thus he injected a needed level of rigor into humanistic psychology. But like Maslow, Rogers was also concerned with the more subjective side of experience, or phenomenology. He was clearly a self-psychologist and like Maslow was concerned with self-actualization, though his conceptualization of the term was slightly different: Rogers believed that all people possess an actualizing
tendency, which is the innate tendency to grow and develop to fulfill one’s inner potential. As with Rousseau (but very unlike Freud) Rogers viewed people as basically “good,” and believed that negative social experiences often presented barriers to achieving this potential. Self-actualization was seen by Rogers as more of a process than a state; and as noted in the previous section, Rogers – in contradistinction to Maslow – believed that all of us are striving toward (and achieving some degree of) self-actualization at every point in our development.

As with many other theorists, it can be insightful to see how the development of Rogers’ own life influenced his personal beliefs, and how these in turn influenced his theoretical and applied ideas in psychology.

Biographical Background

Rogers was a sensitive and shy boy, raised in the Midwest by very strictly religious parents who stressed the Protestant ethic of hard work. He loved nature and the outdoors, and originally wanted to be a farmer. Following high school he enrolled in an agricultural program at the University of Wisconsin. There he became involved with religious activities on campus. But a trip to China to attend a student religious conference drastically changed Rogers and as a result he became more open in his thinking, and he began to question the strict values of his parents. He became more independent and even more outgoing as a result of this important journey. The China trip indeed proved a broadening experience for Rogers.

He felt that his parents, but especially his mother, were not very attuned to him as a person and they did not understand him and his goals and interests. They were quite Puritanical in their beliefs and attitudes. Once as a boy his mother whipped him for just talking with a friend about the sexual behavior that they had observed in animals. His father was also stern and unyielding. Rogers was always afraid his parents would make negative judgments about his life and his decisions so as a result he avoided confiding in them about the decisions he made later in life. Given these events it is no wonder Rogers came to recognize the importance of unconditional positive
regard later in his career as a psychologist. This was something he never seems to have received in his own childhood.

He attended Union Theological Seminary in New York for a time, but then changed his career course and went into psychology instead, having been influenced by courses he was taking in psychology at the same time at neighboring Columbia University. There he was influenced by the great philosopher John Dewey, among others.

Although he studied Freud he did not warm up to Freudian psychology. He heard Alfred Adler speak and was impressed with him as he shocked the audience by stating that an elaborate case history for patients wasn’t necessary for psychotherapy to be successful. He was also influenced by Otto Rank, another breakaway associate of Freud’s who went his own way. Rank was a very strong influence on Rogers because he believed that therapy should be a process in which the client grows when nurtured by the therapist’s empathetic understanding and unconditional acceptance. These ideas became key to Roger’s approach in his own therapy method, at first called non-directive therapy (because the therapist did not attempt to advise the client about how to change his or her lifestyle), and later client-centered therapy. But Rogers’ views were also shaped by extensive practical experience as a clinical psychologist. In his clinical practice he discovered the importance of just listening to people’s stories, and providing support for the clients’ own abilities to make important decisions about their lives. He also learned the importance of being authentic in the therapeutic relationship, or more simply put, of just being “real” himself.

Rogers wrote extensively. Some of his better-known works include his books Counseling and Psychotherapy (Rogers, 1942), Client-Centered Therapy (1951), and On Becoming a Person (1961). He worked for twelve years following graduation from Columbia at the Rochester Society for the Prevention of Cruelty to Children. He taught and conducted research for a number of years at the University of Chicago and the University of Wisconsin. He also practiced and taught at other institutions, including the Center for Studies of the Person – an institute he and a group of colleagues founded in California. Rogers received many honors and awards, including the
Distinguished Science Contribution award from the American Psychological Association. He died in 1987.

**Theory**

**The Actualizing Tendency**

Rogers (1980) believed that there is a tendency for all things in nature to evolve from simpler to more complex forms. He called this process the **formative tendency**. He believed that this formative principle characterized the entire universe, so his viewpoint is clearly teleological. With people this tendency is obviously seen in the development of the person biologically, from embryo to adult. But in human psychological development consciousness evolves as well, from a primitive unconscious mind at birth to levels of increasing awareness throughout the lifespan. Thus the aforementioned actualizing tendency is a special case of the formative tendency as applied to the development of organisms, but especially to people.

The actualizing tendency is found within each individual. Rogers saw it as the active, creative force that guides a person’s destiny to the extent that she or he is not thwarted by external forces (e.g., parents; societal demands for conformity. Here Rogers views are not unlike those of Rousseau\(^8\), Montessori, and Piaget). It is like a master motive that drives behavior and underlies all other motives. This actualizing tendency is present in all living things, from bacteria to sea slugs to puppy dogs to people. And when people have some perceptual awareness of the actualizing tendency it is called **self-actualization**.

**Organismic Valuing and the Fully Functioning Person**

Rogers believed that at some deep level all organisms “know” what is good for them – this is built in by evolution. Rogers called the tendency to evaluate experiences in terms of their ability to sustain and enlarge them **organismic valuing** (Rogers, 1959). A **fully functioning person** (Rogers, 1961) is one who epitomizes psychological health and who embodies the following characteristics; such a person:
 trusts in him/herself (i.e., in one’s organismic valuing) and is not dependent on others for guidance in life;
• is not overly defensive but is instead open to new experiences;
• lives in the present rather than dwelling in the past or worrying excessively about the future (Rogers called this existential living);
• experiences freedom of choice, and takes responsibilities for his/her decisions;
• is creative in a sense that is similar to Erikson’s generativity; in other words acts responsibly and with concern toward others, exhibits social concern, contributes to society through (for example) art or science, or through simple caring and nurturance.

The fully functioning person is a kind of ideal for Rogers. It may be that no real, living human being lives up to such ideals, but this model represents instead a set of goals toward which people may strive. But it is interesting note the similarities of some of these ideal traits with Maslow’s characteristics of self-actualized people.

**Self-Regard and the Need for Unconditional Positive Regard**

As humans, part of what we value is positive regard, or in other words, we all need acceptance and nurturing. People also have a need for self-esteem, and this requires developing a positive self-image, including a certain degree of self-confidence, which he referred to as positive self-regard (compare with Maslow’s two levels of esteem needs).

It is important for the developing child to receive acceptance in the form of positive regard from significant others (initially one’s parents) in order to develop positive self-regard. Once this sense of positive self-regard is firmly established it is self-perpetuating. In other words, once a strong, positive sense of self becomes established, it is relatively resilient in the face of challenges (e.g., taunts by other children). And the child achieves a certain sense of security and independence; she/he does not require constant reinforcement to maintain this feeling.

But sometimes there are roadblocks in the pathway to achieving positive self-regard. This occurs when parents place conditions of
worth on acceptance of the child. For example, a boy may only be accepted by his father if he acts like a “little man” who does not cry when hurt or embarrassed. Or a girl may only be accepted by her mother when she acts like a “little lady” who willingly does her share of the domestic chores at home (washing dishes after dinner and so on). Such children feel unworthy or unloved when they fail to meet the expectations of their parents: They feel that their being loved and accepted is conditional, based on their meeting these expectations.

Rogers argued strongly that children need unconditional positive regard, or complete acceptance by their parents, in order to develop into psychologically healthy adults. Rogers did not mean that parents should ignore bad behavior or that they should fail to apply standards of behavior on their children. What he did imply was that parents must separate the idea of what constitutes acceptable and unacceptable behavior from the idea that a child is loved and accepted for her/himself – not that a child is only loved and accepted when she or he conforms to parental expectations. Parents must nurture their children, teach them what behaviors are proper or improper, impart in them some key values – but they must not mold them. Children need instead to grow in accordance with their own actualizing tendencies.

For Rogers psychological development can be seen globally as realization of the self’s potential through the actualizing tendency. Growth can be blocked when as children parents fail to provide unconditional positive regard, instead imposing conditions of worth on the child. A lack of acceptance by parents or by others leads to a lack of self-acceptance or a feeling of incompleteness. Such a lack can be overcome later in life, but mainly if the basic “missing ingredient” – unconditional positive regard – can be supplied.
Unconditional Positive Regard Expressed in Poetry?
Kahlil Gibran on Parents and Children

Your children are not your children
They are the sons and daughters of life’s longing for itself.
They come through you but not from you,
And though they are with you yet they belong not to you.

-Kahlil Gibran

Defense Mechanisms, Anxiety, and Mental Health

Neurosis occurs when the actualizing tendency is stifled; as when a child has failed to fulfill his potential because of having conditions of worth placed on his behavior, or when an adult, having suffered from similar experiences in a relationship or on the job, suffers a major loss to her self-esteem.

Rogers thought that neurosis manifested itself behaviorally in defensiveness. This defensiveness is due to anxiety that is related to the fear of negative evaluation (by self or by others). He identified two major stratagems of defensiveness (or defense mechanisms), denial and perceptual distortion.

Denial has a similar meaning to that in Freud’s psychoanalysis: it is the unwillingness to recognize reality. Perceptual distortion corresponds to Freud’s rationalization. Both are used to reduce anxiety in threatening situations, also in agreement with Freud. However, Rogers did not stress repression in response to anxiety as did Freud. He viewed these defense mechanisms as protecting the ego, as one might say in Freudian terms, or in Rogerian terms they allow people to maintain their self-concepts by keeping their perception of experience consistent with their self-cognitions.

Rogers believed that psychosis resulted from a breakdown of defenses. A psychotic person becomes disorganized and fragmented when his or her defenses no longer work to maintain the self-concept.
But is should be noted that Rogers, consistent with his rejection of the medical model, was wary of labels like “neurotic” or “psychotic.” He believed that such labels lead to stereotyping. He preferred instead to state that people differed in the extent of their defensiveness and disorganization.

**Client-Centered Therapy and the Growth Process**

It is never too late to learn self-acceptance and acquire a sense of positive self-regard. Rogers’ method of therapy is designed to do just that, with the therapist, through his/her acceptance of the client, providing the needed unconditional positive regard.

The person who lacks complete self acceptance was seen by Rogers as **incongruent**, meaning that there is a discrepancy between a person’s real and ideal self-concept. The **ideal self-concept** represents the person one would like to be, as opposed to the person one actually is. Conversely, a person who is **congruent** does not experience such a discrepancy. But how does a person know if she/he lacks congruence? To assess this discrepancy or lack of congruence in his research on self-concept, Rogers employed a method known as the **Q-technique**. A measure of discrepancy between real and ideal rankings is then possible.

**The Q-Technique**

The **Q-technique** worked like this: the client was given a packet of one hundred cards (like index cards) with statements written on each one. For example, a statement might read “I am physically appealing,” or “I sometimes lack self-confidence.” The client then sorted the statements into several piles ranging from “most like me” to “least like me.” The piles contain different numbers of statements so that the resulting stacks resemble a histogram approximating the normal distribution, with the number of statements in each equal to 1 (least like me), 4, 11, 21, 26 (neutral), 21, 11, 4, and 1 (most like me). This procedure is called a **Q-sort**. In the next step the client arranged the cards again, this time into stacks according to one’s ideal self, or what one desires to be like (the actual statistical procedures for determining the discrepancies need not be of concern here).
An Experiment using the Q-Technique. Rogers and Dymond (1954) used the Q-technique to measure the outcome of client-centered therapy. Using both experimental and control groups in a before and after therapy design, which also included a long-term follow-up, Rogers and Dymond found significant decreases in discrepancy (i.e., a greater degree of congruence) for the group who received counseling. Some of this effect persisted in a long-term follow-up (after six months to a year) as well.

It should be noted that the two groups were not assigned randomly; rather, the group receiving the therapy was chosen based on their individual needs for therapy, whereas the “normal” group were not identified as needing therapy. So as might be expected, the pretest discrepancy scores for the control group were lower (i.e., more congruent) than for the experimental group. However, only the experimental group changed significantly over time in the direction of greater congruence.

Essentially Rogers believed that congruence equaled self-acceptance. The real and ideal self discrepancy decreases to the extent that one is either able to change oneself to meet the ideal, or more realistically in most cases, able to accept oneself as is, including one’s perceived shortcomings.

Theory Underlying the Client-Therapist Relationship

Rogers developed his own theory of psychotherapy. His theoretical ideas marked a considerable departure from psychoanalysis which, in its varying forms, was the predominant – essentially the only – existing theoretical framework for therapy.

Psychotherapy of course originated with Freud, who first identified the processes of transference, resistance, insight, and so forth. But for Freud the analyst was the expert who interpreted the patient’s dream content and free associations in order to bring about insight in the process of working through the patient’s neurosis.
Rogers’ ideas, however, were much different. He did not think of those who consulted him as patients, but rather as clients. He also did not think of the therapist as an expert whose special knowledge of psychology held the key to the client’s improvement. Hence he rejected the *medical model* of therapy in his method.

---

**Real-Ideal Self Congruency:**

**A Self-Assessment Exercise**

*Adult Sources of Self-Esteem Inventory (ASSEI)*

*Instructions:* (A) Rate yourself on how IMPORTANT each of these items is to your own self-esteem by CIRCLING the number on a 0 to 10 scale, then continue on with the instructions at the bottom of the exercise.

1. Looks and physical attractiveness:
   0…1…2…3…4…5…6…7…8…9…10
2. Physical condition, strength, and agility:
   0…1…2…3…4…5…6…7…8…9…10
3. Grooming, clothing, overall appearance:
   0…1…2…3…4…5…6…7…8…9…10
4. Being liked by others, your popularity and ability to get along, your social skills:
   0…1…2…3…4…5…6…7…8…9…10
5. Being a good person, your friendliness and helpfulness to others:
   0…1…2…3…4…5…6…7…8…9…10
6. Having a loving, close relationship with someone:
   0…1…2…3…4…5…6…7…8…9…10
7. Being a law abiding, responsible citizen:

0…1…2…3…4…5…6…7…8…9…10

8. Being an honest and truthful person in your dealings with others:

0…1…2…3…4…5…6…7…8…9…10

9. Having the courage of your convictions, speaking up for what you think is right, even when it is not popular to do so:

0…1…2…3…4…5…6…7…8…9…10

10. Relationships with your family, being on good terms with your family, having good feelings for each other:

0…1…2…3…4…5…6…7…8…9…10

11. Meeting or having met your responsibilities to your family, i.e., being a good parent, spouse, son, or daughter:

0…1…2…3…4…5…6…7…8…9…10

12. Intelligence, how smart you are:

0…1…2…3…4…5…6…7…8…9…10

13. Level of academic accomplishment, years of education:

0…1…2…3…4…5…6…7…8…9…10

14. Being a cultured and knowledgeable person, knowing about art, music, and world events:

0…1…2…3…4…5…6…7…8…9…10

15. Having special talents or abilities – artistic, scientific, musical, athletic, etc.:

0…1…2…3…4…5…6…7…8…9…10

16. Earning a great amount of money and acquiring valuable possessions:

0…1…2…3…4…5…6…7…8…9…10

438
17. Being recognized for your accomplishments, earning the respect of others for your work:

0…1…2…3…4…5…6…7…8…9…10

18. Doing what you set out to do personally, meeting the goals you set for yourself:

0…1…2…3…4…5…6…7…8…9…10

19. Having influence over the events or people in your life:

0…1…2…3…4…5…6…7…8…9…10

20. Belief in a higher power, your spiritual convictions:

0…1…2…3…4…5…6…7…8…9…10

(B) Now go back and rate yourself on how SATISFIED you are with each item by drawing a STRAIGHT line through the appropriate number on the same 0 – 10 scale.

(C) Finally compare each of the two ratings. Look especially for items in which there is a large discrepancy between importance and satisfaction. If you rated any item very high on importance but fairly low on satisfaction then this represents an area of incongruence – something for you to work on!

Instead Rogers believed that the client him/herself was the only person responsible for deciding upon the proper goals and directions for his/her future life through the organismic valuing and trusting process. The therapist’s role was one of a facilitator, not a director. More specifically Rogers believed that there were three necessary and sufficient conditions for a successful therapeutic relationship. These are: (1) the client must be exposed to a therapist who expresses three key characteristics of congruence, unconditional positive regard, and empathy; (2) the client must perceive these qualities in the therapist; and (3) the therapy must be of some duration (i.e., ongoing for a period of, perhaps, several weeks or months). In more detail, the three important qualities of the therapist are:
1. **Congruence**: By which Rogers meant that the therapist is authentic and genuine, and able to relate to the client from this perspective. A congruent therapist is not only open and sympathetic, but also a complete person who does not hide her/his feelings nor take on a role as an “expert” or someone not really connected to the present situation.

2. **Unconditional positive regard**: The therapist accepts the client as another person with warmth and understanding, and without imposing conditions of worth on the client. Note that the term *regard* connotes respectfulness. The client-centered therapy session thus becomes an interpersonal encounter between two persons of equal status.

3. **Empathy**: The key here is empathic *listening* to really hear what the client is saying. To facilitate empathic communication Rogers often used the technique of *reflection*, which means that he would *validate* the client’s statements using phrases such as “you seem to be telling me that you felt abused by your employer when she…”, and so forth. But reflection must be based on genuine interest; it is not a mere intellectual exercise. Empathic communication is also enhanced by *requests for clarification*, such as “I’m not sure I understand your feelings about your relationship with your employer, can you help me to better understand this dynamic?” Note that empathy is not the same as *sympathy*. Sympathy is a feeling *about* the client that may invoke pity, whereas empathy is a feeling *for* the client that is communicated directly to her. It is a form of recognition and validation of the client’s feelings.

**Psychological Growth – In and Out of Therapy**

Rogers believed that successful therapy led to clients who had more realistic views of themselves and of the world and who were more self-accepting, as the real/ideal self-concepts became more congruent.

If the three criteria for successful therapy sound like a prescription for good relationships Rogers would certainly agree. If two people
mutually provide congruence, unconditional positive regard, and empathy, and if these qualities are perceived in the other and held over a period of time, then the relationship is likely to be successful and to foster growth on the part of both parties. But those qualities are useful in every kind of human relationship. Think for example of how these qualities could be helpful to a college instructor, a person who interviews people for a job, or a mediator in a dispute between two parties. The course of any relationship, whether it consists of a single encounter or of a prolonged friendship, marriage, or partnership can benefit from these qualities, which Rogers believed were essential to personal growth. In stressing these qualities Rogers has indeed influenced professionals in every field; his insightful analysis of relationships and the importance of validation of feelings marks a major and lasting contribution to the field of psychology.

**Evaluating Rogers**

**Ahistoric Approach and Neglect of the Unconscious Mind**

Rogers did not deny that a person’s childhood experiences could influence her/his present state of mind, in fact, he was certain that this was the case. But delving into the past record of his client’s lives was not of major concern to him. What he had to offer as a therapist, Rogers thought, was a personal relationship that existed in the here and now, and progress would come through a meaningful encounter between client and therapist. Some thought this approach naïve, and needless to say, many psychologists – but especially practitioners of psychoanalysis – believed this lack of concern for the past to be an important omission in his approach. Also, although Rogers did not deny that there is such a thing as the unconscious mind, he just did not think that this was something that needed to be addressed by the therapist in order to facilitate growth in the client. And here again, many practitioners disagreed with Rogers on the importance of addressing unconscious feelings and motives in the development of personality. Rogers did believe that part of the organismic valuing process was partly unconscious. But he seemed to view unconscious processes from a more benign perspective than did psychoanalysts.
Is Client-Centered Therapy Appropriate for Treating All Psychological Disorders?

While there is something quite refreshing about Rogers’ methods of client-centered therapy, and some evidence that the technique can really help some people, it did not seem appropriate for treating every kind of psychological disorder. An analogy of therapy techniques with auto repair made by one of the author’s own mentors\textsuperscript{11}: client-centered therapy might be most helpful when what is needed is a simple “tune up,” so to speak, whereas psychoanalysis or other intensive methods of therapy might be more useful when a “complete overhaul” is required.

Client-centered therapy is especially helpful to a person who suffers from low self-concept and/or excessive anxieties and concerns about the judgments and opinions of others. As a technique it can be a useful adjunct to other approaches to therapy as well. But today many psychological disorders are thought to be at least partially due to problems within the brain and nervous symptoms. Schizophrenia and bipolar disorder are examples. But some personality disorders, such as anti-social and borderline personality disorders, might also be poor candidates for client-centered therapy. Although Rogers’ very intimate approach to the therapist-client relationship might be helpful, it is probably not enough. Often anti-psychotic or anti-depressive drugs are useful as well, and newer forms of therapy, such as behavioral or cognitive therapies, have also proven to be useful and powerful adjuncts to drug therapy. Indeed, Rogers’ ideas about psychosis may themselves be naïve. His notion that psychosis is a break with normal reality due to distorted perceptions may be partly true, but the cause and nature of these distortions is typically not entirely “just” psychological. Increasingly evidence points to biological factors such as genetic inheritance and an imbalance in neurotransmitters as major predisposing factors in many forms of severe mental illness.
Rogers’ Methods are backed by Empirical Research

Unlike some therapists Rogers backed up his theoretical ideas with a strong research program. As a professor of psychology he conducted and encouraged research studies to demonstrate the effectiveness of his client-centered approach. In fact, he was a pioneer in the investigation of the effectiveness of psychotherapy in general. As already mentioned Rogers received the American Psychological Association’s award for Distinguished Scientific Contribution. He was also president of the APA for a year in 1946-1947, another high honor among many that Rogers received during his lifetime.

It is interesting to note that, though Rogers achieved ample recognition for academic achievements in research, he felt that universities were sterile environments that fostered one-sided people who were too steeped in intellect at the expense of one’s feeling nature. These views are also clearly in line with Rogers’ humanistic perspective.

Impact on the Practice of Therapy

Rogers was the first to present a truly radical departure from psychoanalysis with his client-centered therapy. This applies to both theory and practice. While one may be hard-pressed today to find a “Rogerian” therapist listed in the local phone directory, Rogers impact on the practice of psychotherapy has been enormous, and today many, many therapists are indeed “Rogerian” in their approach to patients – by being congruent, empathetic, and providing unconditional acceptance – while calling themselves cognitive therapists, behavioral therapists, eclectic therapists, or even psychoanalysts.

****
For Thought and Discussion

1. Think of a peak experience from your own life. Jot down your memories of this experience for class sharing.
2. Compare Maslow and Rogers in terms of the different ways in which they viewed self-actualization. How are Maslow’s self-actualized person and Rogers’ fully functioning person similar and how are they different?
3. As a self-assessment exercise complete the ASSEI instrument. Then ask yourself whether you learned anything new about yourself.
4. What are the two different senses in which the term “congruence” is used in the section on Rogers? Explain the difference between them.
5. Why was the study by Rogers and Dymond not a true experiment (refer if necessary to Chapter 2)? Why would it have been unreasonable to conduct a true experiment with these participants?
6. If you were to enter therapy would you prefer a therapist who followed the prescriptions of Freud or of Rogers? Why?
7. Think of various teachers or college instructors you have had. To what extent do they exemplify Rogers’ three qualities of a good therapist? To what extent do they validate you as a person? (Do not confuse the evaluative process in assigning grades and holding you responsible for your work with validating your feelings or relating to you as a person!)
8. To what extent do you think your parents gave you unconditional positive regard? If you are a parent yourself, to what extent do you put this practice into effect with your own children?

****
3. Taken largely from Hoffman (1989).
4. For more of the history of organismic psychology, see the classic Woodworth (1947) text or the first edition of Hall & Lindzey (1957).
5. Jung’s concept of individuation (Chapter 15) seems very much present in the concept of self-actualization.
6. I believe that TPP must be eventually be embraced by mainstream psychology. Although it attempts to expand the domain of the field it nonetheless utilizes basic scientific principles, as discussed in Chapter 2. See, for example, Wilber (2000).
7. Taken mainly from Demorest (2005).
8. Unlike Rousseau Rogers did not consider society to be evil. But society implies people and he believed that people facilitated or (more often) failed to provide unconditional positive regard.
10. This instrument was created by Allana Elovson and James Fleming in 1989; for a description see Fleming & Elovson, (2003). It measures discrepancy between areas of life considered important to self-esteem versus those with which the person is satisfied. The concept is quite similar, though not identical to, real versus ideal self discrepancy. The ASSEI has been used in a number of published research studies, especially in cross-cultural research (see Watkins, 2003, for a summary of these).
12. Your author concurs. See especially the concluding remarks in the chapter on existentialism.
17. Existentialism: From the Age of Anxiety to the Present

[Unlike others, this chapter is written as a personal essay, which seemed appropriate given the individualistic nature of this philosophy. It also seemed essential to include the many ideas of philosophers here, more than in any other chapter, with the exception of Chapter 3. I titled it “Existentialism from the Age of Anxiety to the Present” partly because existentialism addressed the anxieties of those post-war times so well; but as I hope to show, this philosophy and its psychological applications are very much alive and relevant today as well.]

A Serious Young Student and his Times

There are some lovely, rugged shores along the Pacific Coast Highway bordering on the Los Angeles-Ventura County line. Leo Carrillo State Park had in earlier days furnished a backdrop for countless B (as in Beach) teen movies. The original “Gidget” was filmed there as well as a slew of corny beach party flicks. Most of the year the beach is frequented by surfers and sunbathers, but on a cool winter’s day by Southern California standards, I hunkered between the dunes, fully clothed in Levis and sweatshirt with windbreaker zipped tightly to the neck as the brilliant sunlight belied the chilly breeze wafting from beyond the shoreline. Less than ideal weather was the price paid for my solitude as I focused intently on a paperback copy of Sartre’s (1938/2013) “Nausea” – a gloomy book well-suited to the gloomy day.

This snapshot memory is from early in 1961 when it was trendy for college students to study the esoteric, largely European philosophy of existentialism. We visualized Parisians in outdoor cafés absorbed in philosophical debates because, after all, these were truly deep thinkers who pondered ultimate questions concerning the very meaning of human existence. And what could be more profound than that? In the corner of the cafeteria in the college I attended, directly opposite the perpetual, drop-in circle of hearts players, was our little hub of intellectual thought. Un autre café, mes amis? Peut-être quelques discussions philosophiques? Alas, this was the best we
could do for atmosphere in our commuter college. Following classes in the late afternoon the cafeteria became the land of boiled coffee and limp salad greens. And while none of us actually wore berets, smoking was viewed as a symbol of sophistication. Students followed the examples of our instructors who would light up while lecturing. It would be another three years before the United States Surgeon General issued his historic report on the dangers of tobacco at a time when almost everyone smoked. The inauguration of John Kennedy in January marked the end of the Eisenhower administration but with the Beatles craze still a couple of years away the times still felt more fifties than sixties. I attended a California state college as a beneficiary of that state’s generous Master Plan enacted under Governor Pat Brown for low cost higher education, available to all who would take advantage of the system. As no one in my family had attended college before me, I understood that I was in some way privileged to be doing so.

Well-dressed college men of my day preferred Ivy League shirts and crew-cuts, corduroy or seersucker sports coats, scrawny “noodle” neckties, and perhaps some two-toned wingtips, or plain loafers. College women favored plain blouses or twin sets and pleated skirts, conservative suits or day dresses, with saddle shoes or basic black pumps, and heels for formal occasions. They wore ribboned pony tails with bangs or Annette Funicello bouffant hair styles with flips. The youthful Jackie Kennedy was their fashion role model. Our campus then was very middle-class, and mostly white.

We psychology students studied courses with titles similar to those we still see in college catalogs but classical learning theory then held a strong influence in the field with behaviorism the dominant paradigm in this, the tail-end of the rat psychology era. But we psych majors were more focused on methods of therapy and humanistic theories. Carl Rogers and Abraham Maslow were popular favorites. Erich Fromm was also widely read and discussed outside the classroom. Ditto Freud, but even more so the neo-Freudians, following in the psychodynamic tradition: Erikson, Horney, Adler, Jung, and Sullivan. Then there were Rollo May, Viktor Frankl, and other existentialist psychologists.
Alienation was a popular theme in academe. Fromm and the existentialists wrote about it, as did sociologists in the tradition of Emile Durkheim. We students felt alienated without quite knowing why. Despite the postwar economic expansion and relative good times, more seemed to be happening than we could fully grasp, and a kind of free-floating anxiety permeated our little microcosm. Somehow we failed to see the big picture of our times, I think because unknowingly we were living in a transitional period: something was happening here but you didn’t know what it was, did you Mr. College Sophomore? As history shows, radical cultural changes did occur as the decade unfolded. But there was plenty to be anxious about in 1961. Abroad, the construction of the Berlin wall began that summer and Vietnam heated up in the fall. Most of my pals and I were draft eligible. Americans suffered residual anxiety from the threat of a nuclear war. The Civil Rights Movement had advanced well beyond the early stages of sit-in demonstrations in the South. That year that the Freedom Riders – led by James L. Farmer, William Sloane Coffin and others – rode their peaceful, integrated busses through the Southern states to protest segregation policies and where they were met with violent clashes. Within just a few years our college would become much more diversified by changes resulting from the demands of student protestors after campus activism culminated with a takeover of the administration building.

Existentialism as a philosophy seemed especially suited to those fearful times, precisely because confronting anxieties triggered by life’s uncertainties lies at its core. We students witnessed the rise of existentialism in American thought in those turbulent years as artists, writers, and philosophers somberly advanced its themes.

**Existentialism and Meaning in Philosophy and Psychology**

Imagine the early morning sun’s rays casting long shadows on forested woodland. A stag raises his head, displaying his majestic crown of antlers, and sniffs the air for a few moments before venturing into a meadow to forage. A human being can never know what this animal senses but imagination might suggest a certain feeling-tone on his part. Perhaps he has been here before, and the scent in the air is a familiar and safe one. But could he in any sense be
aware of himself as a “being” in the context of this setting with a sense of self? We do know that neither this deer nor any other animal has the same self-referential consciousness that we humans possess. He lacks the mental structures needed to anticipate the distant future or to grasp his place in the Great Scheme of Things. Perhaps he may be aware of himself but he cannot be aware of being aware as are we, nor can he think about thought. And although he may behave in accordance with his social standing within the cervine community, he lacks the cognitive abilities to enable him to muse about his relationships with other members of the herd. Surely his actions, too (might he challenge another buck today?), are reflexive and instinctual in contrast to a person’s sometimes carefully thought-through and angst-ridden decision processes (“What if I can’t get my draft deferment?”). And unlike this buck we people have an awareness of our mortality. We understand that eventually all of us are, in Heidegger’s language, beings-unto-death; and it is in this awareness that we differ from other species. This realization is fundamental to existentialist philosophy.

Existentialism has its origins in the nineteenth century in the writings of Kierkegaard, Dostoevsky, and Nietzsche. In the twentieth century some of its more influential writers were Jaspers, Heidegger, Sartre, de Beauvoir, Tillich, Buber, Ortega y Gasset, and Camus. Twentieth century existentialist psychologists include Europeans Ludwig Binswanger, Medard Boss, and Viktor Frankl, and Americans Rollo May and Irvin Yalom. May (e.g., May, Angel, & Ellenberger, 1958) and Yalom (e.g., 1980) fostered a new movement within American psychology. What the existential writers have in common is not agreement, but rather a rejection of traditional philosophy and particularly the academicism espoused in universities. Walter Kaufmann (1956, p. 11) concluded in “Existentialism from Dostoevsky to Sartre” that “Existentialism is not a philosophy but a label for several widely different revolts against traditional philosophy…one essential feature shared by these [existentialists] is their perfervid individualism.”

Existential philosophers are concerned with the meaning that people make of their existence; how we choose to live our lives, given the inevitability of death. As a dread of nonbeing existential angst
differs from Freud’s neurotic anxiety. Confronting our mortality causes existential anxiety, and the failure to face it (denial) results in existential guilt. May understood this well. In his youth he spent three years in a sanitarium after contracting tuberculosis. He learned to be an active agent in his own healing as he struggled to survive. This is a lesson that Frankl (1947/1963) also preached: those who survived in concentration camps, Frankl believed, were motivated by a will to meaning, in contrast to Nietzsche’s will to power, or to Freud’s pleasure principle. These people managed to look with hope toward the future despite their oppressive circumstances. Those who lived only for the small pleasures to which they were addicted – the next cigarette or cup of coffee – were the first to perish.

Heidegger (1927/2008) believed a person can choose to live an authentic life or an inauthentic one. A person living authentically comes to terms with the source of her or his anxiety by accepting the inevitability of existing as a being-toward-death. Heidegger coined the term “thrownness”: we are thrown into the stream of life’s circumstances over which we have little say. We do not choose our parents, nor our nationality, social class, or the ethnicity into which we are born. But existentialists assert that people possess freedom, and with freedom comes responsibility for the choices we make. By contrast the inauthentic life is one in which a person merely exists. Like an animal following its herd, the inauthentic individual simply conforms. Sartre believed that “existence precedes essence,” a phrase which became a credo for some existentialists. The more difficult path is to choose a way of living, to create one’s essence.

Heidegger’s Dasein (Da = “there”, sein = “being) is, like many of his terms, difficult to find an English translation for, but it means something like “being there,” or “presencing” in his lesser known but intriguing essay, “On Time and Being” (Heidegger, 1972). “Heidegger uses the expression Dasein to refer to the experience of being that is particular to human beings. Thus it is a form of being that is aware of and must confront such issues as personhood, mortality, and the dilemma or paradox of living in relationship with other humans while being ultimately alone by oneself” (Wikipedia, 2019).
For Sartre life as given is utterly meaningless and it is up to each of us to invent ourselves. Obviously this is not an easy route, which is why existentialists believe that most are content to live conventional and inauthentic lives. Heidegger called this choice “fallenness.” But unlike Sartre not all existentialists were atheists. Kierkegaard, Buber, Frankl, and Tillich found meaning in religion. Yet they still valued freedom and personal responsibility. Kierkegaard was contemptuous of pro forma religious practice. Mere adherence to dogma and ritual just would not cut it. For him doubt and struggle were, paradoxically, requisites for genuine belief.

The Three realms of Existence

Following Heidegger, Binswanger and other existential therapists viewed people as inhabiting three overlapping worlds: the world of nature and things (Umwelt); of people or interpersonal relations (Mitwelt); and of self (Eigenwelt). The balancing of one’s life demands coming to terms with each of these domains: we can connect with them, or we can become alienated from them. (I shall refer to these “Welts” more simply as the Natural Sphere, the Social Sphere, and the Inner Sphere.)

In the Natural Sphere Heidegger lamented the ways in which the industrial revolution changed the world. It became too technological, and the danger from this was alienation from the nature. And we have become an ever more technological world since. Many of us have indeed lost touch with nature in a world of endless freeways, mega-skyscrapers, maxi- and mini-malls, and ubiquitous commercialism. Even in Paris one now finds McDonald’s and Pizza Hut fast food restaurants. Viewed as menacing by some, benign by others, Americanization is a reality. In this global technocracy nighttime skies are distorted by light pollution so we can no longer clearly view the stars and constellations. Some inner city dwellers have never seen a forest or ocean. When people do “get away from it all” they often fail to truly escape from the trappings of civilization, carting with them the electronic gadgets upon which they depend.

May viewed the bomb as the greatest threat of his time. He saw the fear of nuclear war as a major source of alienation from the natural world. In “Love and Will” May stated:
The greater our alienation from nature – alienation’s ultimate symbol being the atom bomb and radiation – the closer we actually are to death. The rape of nature in the form of the splitting of the atom is thus related to our fear of death, our guilt...and our consequently redoubled need to repress the consciousness of death. And here the mother symbol enters; we speak of mother nature. It is not a far cry from experiencing the achievement of the splitting of the atom as gaining power over the “eternal feminine.” The atom bomb sets us into conflict with the symbolic mother. This is why the construction of the bomb carries such a personal symbolic power for almost everyone. (1969, p. 107, emphasis added.)

My youthful understanding of the atomic bomb gradually changed from amazement and awe to fear and anxiety. As a boy of just five years I sent fifteen cents along with a cereal box top to General Mills to purchase a mail-order toy, the Kix Atom Bomb Ring. It seemed like months went by before it came because a child’s sense of time is very different from an adult’s. Meanwhile the other kids in my neighborhood and school had received their rings.

I was elated when it finally arrived. The gold finger band supported a bomb-shaped figure consisting of two sections, the silver head and the red tail end complete with fins. These sections came apart and as I gazed into the silver half I could “see the stars” as flashes of light, which, according to the Oak Ridge Association of Universities web site (ORAU, 2011), were “scintillations caused by polonium alpha particles striking a zinc sulfide screen.” Inside the ring I could hide secret messages! What a wondrous gadget for a boy to own.

At that age I had no clue as to what the atom bomb really was, or what it meant to the postwar world. Kids knew that the bomb represented tremendous power, and that it must be good because it brought about the end of the terrible war. We didn’t comprehend its awesome destructiveness nor did we realize that it was dropped on cities populated by thousands of civilians with horrifying consequences. But just a year or two later I remember waking up at
night in a cold sweat from a nightmare in which enemy planes flew overhead searching me out to drop one of these A-Bombs directly on top of my head! I woke my parents, who consoled and comforted me. I finally was able to return to my bed to sleep but my fears were only slightly allayed.

What had transpired was that I, along with the rest of society, had begun to glimpse the true power of this weapon and to experience the fears and the paranoia that others were experiencing in our new Atomic Age. In grade school children were taught to duck and cover during bomb drills as the teacher abruptly yelled “Drop!” We immediately dropped whatever we were doing, and crawled under our desks into a kind of fetal position, crouching and cringing with arms and hands simultaneously covering our heads and faces until the “all clear” was given. In the event of a real attack would this have saved us? Probably not, but they certainly reinforced our fears.

The closer we are to the possibility of death the greater the degree of collective angst and alienation. The late anthropologist Ernest Becker (1973) claimed that extreme fear increases “mortality salience,” or in other words, we cannot avoid confronting the real possibility of death. Existentialism provides a framework for understanding the dynamics of these fears, if not an escape from them, and that is its appeal to philosophers and psychologists.

Existentialists recognized that one can become estranged from other people (the Social Sphere) as well as from the Natural Sphere. I think that one may safely assume that neither Kierkegaard nor Nietzsche would have felt at home at the modern cocktail party, or in the typical business meeting, where people pass the time with surface banter. Alienation from the Social Sphere can be seen in any situation in which another person is regarded as an object or to be used by another without consent; for example, simply to gratify sexual and power drives.

But people can also become alienated from themselves (Inner Sphere). Many of us choose to escape from ourselves and methods for doing so abound via addictive or compulsive behaviors. People can lose themselves in the numbing murkiness of drugs or alcohol, for instance, and two people can mutually support one another in a flight
from reality, as in the alcoholic’s codependent partnership with her or his mate or lover.

Some people really do seem to regard themselves as objects rather than individuals. In “Escape from Freedom” Erich Fromm (1941/1994) considered the marketing character: a person who views him or herself as a commodity whose value as a person is determined by the judgments of others and by the extent to which they fit in with the needs of the modern, industrialized world. When considered as “meat markets,” singles bars nicely capture Fromm’s concept. Fromm deplored the conformism in modern times and the basic anxiety that people experienced from their lack of rootedness.

Existentialism and Anxiety in Popular Culture

“[L]iterary artists symbolically express, often with remarkable fidelity, the unconscious assumptions and conflicts of their culture,” stated May in “The Meaning of Anxiety.” May’s book (written in 1950 but later updated; May, 1977) remains a remarkable treatise on anxiety and the human condition in the tradition of Kierkegaard. It also provides an insightful socio-historic analysis of American, and perhaps of Western, culture in the mid-twentieth century. A major thesis of May’s is that anxiety was pervasive yet covert in the earlier part of the twentieth century, following the First World War, but that overt anxiety characterized the post-Second World War era, mainly due to the threat of nuclear warfare. But be it overt or covert, psychologists presume that greater anxiety leads to increased conformity to the in-group and hostility toward those who are perceived as different. Fascism in prewar Europe is an obvious example. May claimed that covert anxiety, as well as conformity and alienation, were echoed in Thomas Wolfe’s (1934/2011) “You Can’t Go Home Again”. It seems to me that Eliot’s Prufrock, psychologically paralyzed and unable to confront his overwhelming question, was prototypically another; and Eliot’s “The Wasteland” portrayed postwar anxiety, despair, and disillusionment as well.

May gave few literary examples from the era following the war (his age of overt anxiety) though he noted the postwar resurgence in interest in the novels of Franz Kafka and Herman Hesse, both of which captured the pervasive sense of alienation of the times. So I
will add to these by citing trends in literature and in our broader, popular culture. W. H. Auden won the Pulitzer Prize for poetry in 1948 for “The Age of Anxiety: A Baroque Eclogue (1947/1991)” He highlighted the anxieties exhibited by each of the four lonely, anxious people who meet in a bar during the Second World War. In his prologue to the poem Auden wrote: “When the historical process breaks down and armies organize with their embossed debates the ensuing void which they can never consecrate, when necessity is associated with horror and freedom with boredom, then it looks good for the bar business.” Leonard Bernstein composed his own “Age of Anxiety,” a programmatic symphony for orchestra with piano, to capture the unease experienced by Auden’s characters.

Popular books in the fifties echoed themes of alienation and conformity, including William Whyte’s (1954) “The Organization Man” and “The Lonely Crowd,” by David Riesman and colleagues (1961). Whyte saw modern men as having lost their individuality, instead becoming part of the corporate rat race. Riesman identified three types of people: tradition-oriented people who cling to old fashioned values instilled by society, religion, and parents; other-directed people, who follow the crowd; and inner-directed people, who think for themselves. Riesman believed that industrialized society produced mainly other-directed types who wished to be accepted by others, rather than being respected by them. Sloan Wilson’s (1955) “The Man in the Gray Flannel Suit,” made into a film starring Gregory Peck, portrayed a man caught in a conflict between integrity and ambition. The protagonist was a Madison Avenue advertising executive – the organization man personified.

Arthur Miller’s (1949/1976) play “Death of a Salesman” appeared shortly after the war. His Willy Loman, a kind of other directed character, insisted on the importance of being “not just liked, but well-liked.” The real tragedy of the play is that Loman tried so hard to succeed in American society yet was eulogized at the end of the play as a man who never really understood who he was. Samuel Beckett’s absurdist (1954) “Waiting for Godot,” also captured the conformism and alienation of the age, as did Eugene Ionesco’s (1960) “Rhinoceros,” and Edward Albee’s (1961/1997) “The American Dream.” Teen angst was acutely portrayed in J. D. Salinger’s (1951)

Some notable rebels voiced their rejection of conformity. Before Timothy Leary’s dictum of “turn on, tune in, drop out” bearded men wearing berets read “beat” poetry in coffee houses to the rhythm of live bongo drums. Women in dramatic black leotards (predating the Goth look by decades) looked equally grim. Reactions against conventionality breed in themselves, time and again, their own modes of conformism. Yet the Beat literary movement burst with raw originality, producing poets Allen Ginsburg (“Howl”; 1956), whose words not only jump off the page, they slap us squarely in the face; and Lawrence Ferlinghetti (“A Coney Island of the Mind”; 1958). There were also novelists Jack Kerouac (“On the Road”; 1957) and William Burroughs (“Naked Lunch”; 1959). Kerouac was an alcoholic, Burroughs a heroin user who wrote homoerotic themes (as did Ginsburg) in a time when most recognized writers would not broach these subjects. Although divided (Truman Capote’s verdict: this wasn’t writing, just typing), some considered these men important writers; and though certain of their works have aged better than others, their dark and provocative reactions to the Cold War, the Bomb, and the Madison Avenue Organization Man, could only have been scripted in the Age of Anxiety.

The Threat from Within

Americans feared communism. If nuclear war was the threat from without then the threat from within was from communists in our midst. The egghead-hating Senator Joseph McCarthy led the House Un-American Activities Committee in the investigation of citizen’s alleged Communist Party affiliations, past or present. Careers were ruined, most visibly those of Hollywood movie actors, directors, producers, and writers, who were blacklisted after their sympathies were publicized. Those who refused to name others also became victims of the blacklisting. Universities and other organizations were required to institute loyalty oaths in which people had to swear allegiance to the United States before being hired or to be retained. Many people accused by HUAC attended Party meetings simply out of curiosity. If someone was accused but took the Fifth Amendment,
he or she was presumed guilty. Indeed, merely being accused was tantamount to being guilty in the minds of many people.

Some in Hollywood never forgave director Elia Kazan for reporting associates who had links to the Communist Party. Kazan, who was awarded an Oscar for lifetime achievement in 1999, had been a member of the Party in the 1930s, though he later renounced communism. His one-time friend, playwright Arthur Miller, conceded that he deserved the honor for his exceptional achievements, though for years following the HUAC investigations they never spoke. Miller’s play “The Crucible” (1953/2016) was an allegory based on the HUAC hearings. Miller himself was closely scrutinized.

People began to feel that their rights to privacy were being violated by loyalty oaths, HUAC, and even their snoopy neighbors who were suspicious of anyone who looked or acted different. They came see McCarthyism as a kind of paranoia-inducing witch hunt. Ultimately McCarthy was defeated by influential people including journalist Edward R. Murrow and Army attorney Joseph N. Welch (“Have you no sense of decency, sir, at long last?”)

Of course the totalitarian Soviet Union was rightfully seen as menacing. Stalin murdered more people than Hitler. Directly or indirectly, so did Mao Zedong in China. Although George Orwell’s “1984” was not prescient (that year came and went without his futuristic predictions coming to pass), its fictional setting was not far removed from the reality of the contemporary Soviet Union at that time. And there were indeed Americans who spied for the Soviets, among them Julius and Ethel Rosenberg, who were executed for espionage in 1953. The trial was controversial because of the very times: many people thought the penalty too harsh for the crime, and others were unsure of the Rosenberg’s guilt.

The Decade of the Sixties

The Age of Anxiety continued from the immediate postwar era through the sixties when tensions between the United States and the Soviet Union intensified as both began building bigger, deadlier nuclear weapons. The launch of the Soviet Sputnik satellite in 1957 led to fears that the Soviets had a head start on the West in space, and that they might soon be able to fire nuclear weapons from satellites. In
1961 the Soviets began construction of the Berlin Wall, dividing East from West Berlin. Then for a tense fortnight President John Kennedy and Soviet Premier Nikita Khrushchev fenced over the placement of secretly shipped nuclear missiles to Fidel Castro’s Cuba, just ninety miles from our shores. None of us who were then alive can forget this time as the nation came perilously close to war, and quite possibly to a nuclear one. Fortunately the crisis ended peacefully with the Soviets’ retreat.

Orwell’s (1949) “1984” and William Golding’s (1954) “Lord of the Flies” both addressed cold war fears. The first depicted a futuristic totalitarian state; the second was an allegory on the bleak possibilities for the breakdown of society following a major war. Several films highlighted fears of nuclear war and communism, including Stanley Kramer’s “On the Beach” (again with Gregory Peck), John Frankenheimer’s “Seven Days in May,” and his “The Manchurian Candidate;” and Sidney Lumet’s “Fail-safe.” The dark themes had a lighter side in comedy relief with films like Carl Reiner’s “The Russians are Coming, The Russians are Coming,” and Kubric’s black comedy, “Dr. Strangelove.”

Some constructed underground backyard bomb shelters. In the early 1960s my girlfriend and I babysat for an affluent couple who had such a shelter. Demurely they led us to the entrance of its foreboding chamber so that we could see where the stash of food supplies and first aid kits were kept. It felt sterile and unearthly. (In retrospect a backyard pool would have been a much better investment.) In 1963 Bob Dylan’s “Freewheelin’” album contained the protest songs “A Hard Rain’s A-Gonna’ Fall,” “Talkin’ World War III Blues,” and “Let Me Die in My Footsteps” (“I will not go down under the ground/When somebody tells me that death’s comin’ round”). It was not unusual for couples of this era to forego having children because they feared there would be no future for them.

I saw Dylan in his first major concert appearance. As a guest of Joan Baez at the Hollywood Bowl he stole the show (with her tacit approval). He introduced his protest songs to a larger public for the first time. Like lots of college kids I was caught up in the folk music revival movement of the early sixties. Dylan’s early music followed the folk and tradition of Woody Guthrie. The timeless Pete Seeger
and other folk artists, both living and dead, were also being heard afresh by young folkies across the land. But this craze would soon give way to the resurgence and revitalization of rock music from Britain – and some never forgave Dylan for “going electric.”

**Changes in American Culture**

In the South segregation was still practiced into the 1960s. This included public as well as private establishments – stores, restaurants, hospitals, hotels, and so on. Jim Crow laws were in effect, and the vigilante Ku Klux Klan maintained this rigid social order, with lynchings (mainly of African-Americans) still common. Only in 2005 did the U.S. Senate issue a formal apology for these lynchings. Astoundingly, in the 1960s Congress could not pass anti-lynching legislation because of filibusters by conservative Southern senators. In the mid-twentieth century, until a Supreme Court decision in 1948, even establishments in northern and western states could refuse service to customers based solely on ethnicity. There were hotels and restaurants that refused to accommodate not just black-skinned people, but also Jewish, Mexican-American, or Asian patrons. Prejudice and racism in America, both subtle and blatant, were portrayed in books like Laura Hobson’s (1948) “Gentleman’s Agreement” (anti-Semitism) and Harper Lee’s (1960) “To Kill a Mockingbird” (Southern racism). Both were made into motion pictures, both again starring the ubiquitous Gregory Peck – who won an Oscar for his portrayal of small-town lawyer Atticus Finch in the latter.

A woman’s place was still in the home, at least for the majority of women, as there were always notable exceptions; this was the socioeconomic model of the times. Many women attended college for enrichment purposes but were not expected to assume careers in medicine, law, or other high profile professions. If women joined the labor force it was usually in helping professions such as teaching and nursing. The man in the family was expected to take on the role of provider, with women assuming supporting roles as mothers and homemakers. This patriarchal model of the nuclear American family was portrayed and reinforced in such long-running television shows
as “The Adventures of Ozzie and Harriet”, “Father Knows Best,” and “Leave it to Beaver.”

When I was an undergraduate student in the early 1960s, a female student completing her master’s degree was distraught not only because her advisor recognized her work as outstanding; she was also his prized pupil. Yet he felt that he could not, in good conscience, recommend her for Ph.D. work because she would be taking a needed place from a deserving male! He advised her instead to be content to support her family by being a good wife and mother. I had neither the psychological means nor the maturity to console her at the time, but I never forgot this uneasy moment: something was plainly wrong here. I regretted that I could not find the right words to support and console her. But at least this was a starting point for me as I began to question many cultural assumptions that I had implicitly taken for granted.

The 1960s and 1970s were a turning point in history as monumental social changes took place. As we all know, this was an era of both upheaval and positive change, via the Civil Rights Movement, anti-Vietnam War protests, and feminist activism. The South became (or would become) fully integrated and throughout the country women became increasingly visible in the work force. Some influential voices of the period (to give just an abbreviated sampling) included: feminists Betty Friedan and Gloria Steinem; civil rights activists Martin Luther King, Jr., and Thurgood Marshall; radical change advocates Huey Newton and Jerry Rubin; politicians John and Robert Kennedy, Lyndon Johnson, Richard Nixon, and Henry Kissinger; poets Maya Angelou, Robert Lowell, and Silvia Plath; writers James Baldwin, John Howard Griffin, Kurt Vonnegut, Jr., Norman Mailer, and Thomas Pynchon; journalists Tom Wolfe, David Halberstam, and Hunter S. Thompson; rock musicians Jimi Hendrix, Frank Zappa, and the Rolling Stones; and artists Andy Warhol and Roy Lichtenstein. In international relations tensions seemed to cool by the end of the decade, even as the arms race continued. Perhaps people simply became accustomed to the stresses of the times, but the era of the bomb shelters and the duck-and-cover drills had ended. Fears had peaked during the Berlin and Cuban missile crises. Later attempts at détente helped ease tensions. The threat of Mutually
Assured Destruction restrained the superpowers and the Cold War was at a stalemate. And with the booming economy in the sixties, the threat of a communist revolution from within seemed a distant memory.

In retrospect it seems obvious that the need for reforms was essential for social progress but the means to that end were often violent, both on the part of the authorities (the Chicago police brutally attacked protesters during the 1968 Democratic convention), and on the part of some home-grown revolutionaries (the Weathermen, Black Panthers, and Symbionese Liberation Army). This period is remembered as a time of “free love,” but also as a time when psychedelic drugs (LSD, peyote, and marijuana) and other drugs were widely used. Although the era predated the AIDS epidemic, there were still dangers in unprotected sex. Leading voices in the world of Acid Rock (Jimi Hendrix, Janis Joplin, and Jim Morrison) burned out and died. In her “Slouching Toward Bethlehem” Joan Didion (1968, pp. 84-85) captured the darker side of the times:

It was not a country in open revolution. It was not a country under enemy siege. It was the United States of America in the cold late spring of 1967, and the market was steady and the G.N.P. high and a great many articulate people seemed to have a sense of high social purpose and it might have been a spring of brave hopes and national promise, but it was not...All that seemed clear was that at some point we had aborted ourselves and butchered the job...

So, whereas many people viewed the sixties as an exciting era of change and reform, others saw them as a frightening time of social breakdown. In retrospect is seems that both views had some validity. By contrast, depending on one’s point of view, the 1950s might be seen as a stagnant era of complacency and conformity, anxiety and racism, or a time of relative harmony in which “traditional family values” prevailed. And again, perhaps, both views contained some truth. *It depended on who and where one was; on one’s thrownness*. If the fifties was a time of institutionalized racism then the following
decade was an era of social change as well as upheaval, at the cost of a near meltdown of the social order.

I recall my own comfortable upbringing by middle-class Protestant parents, who were Eisenhower Republicans, in a suburb of Los Angeles. So elated were they by his election that my mother invited my fourth-grade-school class to view his inauguration on television in a field trip away from school. Eighteen kids huddled around a tiny black and white set. It is easy to forget that in 1952 not everyone had a TV, and the televising of this event was an historical first. Looking back on these times in later years some of my boyhood pals would say man, you really did live in a Leave-it-to-Beaver household.

Of course I did not because in truth no one ever did, but memories are selective. Yes, we held strong ties – so-called traditional family values – but then our family could afford to hold them. In my mid-twenties I would break from the family tradition and register as a Democrat, mainly because I thought forward thinking people in this party took the high road on civil rights issues. Not the southern Dixiecrats of course, but most of those who were in the vanguard of the movement.

The Evolution of Existentialism

Existentialism did not die following the Age of Anxiety. There are still therapists who incorporate existential concepts into their practices and philosophers with an existential bent. But as a cultural movement, existentialism seemed to have lost much of its force. Why? Perhaps it was the easing of tensions over the threat of nuclear war and the lessening of anxieties over the constant threat of nuclear annihilation. Perhaps attention was just diverted to other matters, such as concern over the war in Vietnam, which seemed at the time to be never ending, or to other social concerns. Perhaps interest in philosophic postmodernism helped to displace existentialism. Or, perhaps existentialism simply became a point of view that is taken for granted by many thinkers, which no longer required a movement to sustain its momentum. Although I didn’t lose interest in existentialism entirely, my attention shifted over the next few years to some of the more exciting but eclectic work on the social psychology of the self, and to
the newer domains of cognitive neuroscience and evolutionary psychology.

Terror Management Theory: An Experimental Approach to Existentialism

Articles on a new theoretical approach in psychology called *terror management theory* (hereafter TMT) began to appear in psychology journals in the 1990s. This theory was first advanced by psychologists Sheldon Solomon, Jeff Greenberg, and Tom Pyszczynski (see especially “In the Wake of 9/11; 2003), who as graduate students at the University of Kansas followed Ernest Becker’s work – especially “The Denial of Death,” for which he was awarded a Pulitzer Prize in 1973. Underlying TMT are the assumptions that culture and individual self-esteem evolved to help us manage the blinding terror we all would feel in the face of death without recourse to the defenses that they provide. In their first attempt to publish their ideas their manuscript was rejected by a peer reviewer who claimed that the theory could not possibly be of interest to any serious psychologist! Perhaps the reviewer thought, as did I at first, that “terror management theory” was an odd, unappealing name for a psychological theory; one which promoted a bleak view of existence at a time when others were optimistically advancing motivational theories that emphasized self-expansion and positive growth potential. But after delving more deeply into their works, I came to understand how intimately TMT was linked to existentialism as they began calling themselves *experimental* existentialist psychologists.

Traditionally, existential psychologists eschewed the rigors of experimental psychology, or attempts to objectively evaluate their therapies. It isn’t difficult to understand why: they regarded the most important values in life, such as “a meaningful existence,” or “authentic living,” as concepts that can only be understood in personal, highly subjective and experiential ways. How, they wondered, could such experiences be captured and quantitatively evaluated? There is an appealing romanticism in this notion, of the kind expressed in the E. E. Cummings’ poem (2016, p. 183) “voices to voices, lip to lip”:

464
While you and i have lips and voices which
are for kissing and to sing with
who cares if some one-eyed son for a bitch
invents an instrument to measure Spring with?

(In an issue of *Harvard Magazine* (Anonymous, 2002) displayed a relic found in its basement collection of historic scientific instruments: “Among [the] treasures is an ivory pocket sundial…made in 1613 in Nuremberg, Germany, by Lienhart Miller, that enables the user to know precisely when spring arrives and exult accordingly.” Mr. Miller, who seems to have possessed a kind of eccentric genius, does make an easy foil for Cumming’s caricature.)

So instead of focusing on laboratory experiments, existential psychologists made extensive use of case histories. These can indeed capture the emotional depth of human experience. Or they took the literary path to communicate their ideas, as did Yalom in his engaging psycho-philosophical novels (“When Nietzsche Wept” (1992) and “The Schopenhauer Cure” (2005)). But gut reactions were precisely the stuff of the existential psychologist’s trade at the height of their era. May departed from Freud’s therapeutic model in which the therapist listens to and ultimately directs the patient, leading her or him to new depths of understanding. May instead believed that psychotherapy ought to be a two-way interaction, which opens the possibility of growth and discovery on the part of both patient and therapist. Where’s the room for experimentation and measurement in this?

Yet I believe that the bridge between the classical existentialists and the TMT theorists can easily be broached because TMT researchers have garnered the empirical evidence needed to support Becker’s theory. Social psychologists believe self-esteem is a kind of buffer that shields the individual from anxiety that is built into our psychological makeup through evolution: when humans developed consciousness we became self-aware, and this awareness included the existential understanding that our lives are finite. Maintaining a positive attitude about ourselves, however, fortifies us against threats to the ego, and numerous studies conclude that people with high self-esteem are lower in anxiety than those with low self-worth (and vice
versa); and this anxiety includes the fear of annihilation. Closely related to positive self-regard is acceptance by others in one’s social milieu. The need for acceptance begins with feelings of vulnerability in infancy, and expands throughout life into ever wider social circles. Identification with the in-group, be it family, community, church, club, or nation, is a part of our highly social nature, but acceptance also demands conformance to the group’s worldview. People thus feel protected, accepted, even loved, when they conform to the social standards promulgated by their peers. Pyszczynski and colleagues from their book “In the Wake of 9/11: The Psychology of Terror (2003),” state that the need to keep death anxieties at bay “…is controlled by complete immersion in the cultural drama that provides meaning, value, and, consequently, a sense of security and immortality.” As did Freud, they recognized that identification is a powerful defense mechanism. And TMT assumes that people counter this dread by other means as well; for example through belief in an afterlife, or by attaining symbolic immortality through procreation or by creation of works that will outlast us.

Social psychologists cleverly disguise the true purposes of their studies involving human subjects. In TMT this often involves temporarily manipulating one’s perceived self-esteem or increasing Becker’s mortality salience. Methods for experimentally increasing death awareness include showing graphic film clips depicting crushed automobiles and bodies following a traffic accident, or showing film of an autopsy. TMT researchers also portray others as possessing belief systems contrary to those of their subjects. For example, people with Christian beliefs may be presented with a composite description of someone who is Jewish or Muslim. By increasing mortality salience people rate those with different cultural values more negatively than they do those in control conditions.

Numerous experiments on raising death awareness have confirmed hypotheses generated by TMT. For example, it has been repeatedly found that increasing mortality salience increases out-group prejudice; also people with extreme political views were made to exhibit aggression toward those they believed held opposing views; white people with increased death awareness held more favorable
views toward white racists; and in mock trials, real judges set higher bail for prostitutes when their behavior was seen contra their own worldviews when mortality salience was raised.

Differences in individuals were also examined. Those who are tolerant and open, in contrast to those with more rigid, fundamentalist views – and those who are more secure and have greater self-esteem – are least likely to need to resort to extreme defenses in response to heightened mortality salience: their worldviews are more stable and secure.

Research supports a psychological model that looks like this: increased death awareness leads to anxious thoughts – but these are either consciously suppressed or rationalized. However, the resulting anxiety still persists unconsciously, raising defensiveness, so that worldview protectiveness, self-esteem bolstering, and other defenses are invoked; hence anxiety is ultimately reduced. Worldview defenses include derogation of the threatening persons, attempting to convert or change them to one’s own belief system, resorting to actual aggression, or perhaps accommodating them by expanding one’s own worldview, as when the mainstream culture of the 1960s came to accept many of the values of the hippie counterculture.

As to the application of TMT to the psychology of terrorism itself the author’s state:

... prejudice and ethnic strife...including terrorism, are ultimately the results...of humankind’s psychological inability to tolerate the existence of others who do not subscribe to their death-denying cultural constructions. (2003, p. 190.)

Can TMT then save Western civilization from terrorism? That’s unlikely; but from the growing number of TMT studies, the authors draw some practical conclusions. These include teaching tolerance to reduce aggravation of tensions and reducing mortality salience by de-escalating threats to others. A reasonable path to smoothing hostilities lies in, first, granting the validity of viewpoints other than one’s own, and then stressing commonalities rather than differences. Surely no one believes that the most extreme groups can be mollified – these
strategies must be geared to more moderate factions. My personal conclusion is that, while it is important to keep the public well informed, it is unhelpful to frighten them unnecessarily – as through implementing increasingly severe, color-coded terror alarm levels and then selling them on the notion that “our” group will do a better job of protecting them. Unfortunately, aggressive posturing (“axis of evil,” “with us or against us,” “we don’t negotiate with states that have connections to terrorism”) merely serves to increase the fears of our adversaries and to escalate hostilities. Both TMT and traditional psychology agree that diplomacy (but not appeasement) is a better strategy in human affairs than threats and demands; as Theodore Roosevelt claimed, we must “speak softly but carry a big stick.”

Researchers have advanced a theory of terrorism grounded in TMT, in part by analyzing the motivation of terrorists as well as the reactions of the terrorized. Space limitations preclude further elaboration, but one can easily see how the popularity of existentialism is likely to increase in proportion to the prevalence of further terrorism; for terrorism is, potentially, both the new Cold War and the Threat from Within. As this threat increases society could again respond with fears reminiscent of those due to the threats of nuclear war and communism, and a new Age of Anxiety will emerge.

**Human Development from the Existential Point of View**

Existential psychologists seek to foster personal growth and development in adults. One way psychologists can help facilitate such growth is through psychotherapy. An existential therapy session is a mutual encounter between two persons, as it was with Rogers. Yet existential therapy is not entirely like Rogerian therapy; here the therapist does make interpretations when called for. And in the therapeutic encounter, both transference and countertransference are expected and desirable, as both therapist and client may grow and benefit from the mutual dialog. (Jung had earlier described his therapy method this way as well.) The ultimate goal for the client is increased freedom along with acceptance of responsibility for one’s life and actions. More than this, it is an attempt to help the client live a more authentic life: this means learning to tolerate the ambiguities and

468
uncertainties of existence, and finding or creating a more meaningful way of living.

Of course people can develop themselves by other means than through psychotherapy, which can be seen as only one possible route self-discovery. Rightly or wrongly Sartre was critical of psychology and of psychotherapy (especially psychoanalytic). But the road can be tougher without help. Think of Rollo May, for instance. For him it took a life-threatening illness to fully come to terms with what his inner angst and his personal search for meaning. But a better understanding of some of the factors that motivate us – especially the ways we perceive and react to the world, often without awareness (TMT again) – can help direct us in our personal growth and our quest for authenticity, even without formal psychotherapy.

A Personal Perspective

I still feel a fondness for the classical existentialists in both philosophy and psychology, although after studying more of the lives of its pioneering figures I feel less attached to Sartre than I did in my youth and I am less awed by sophisticated-sounding prose unless these are substantively based. Heidegger, too, has always been problematic for me because, although his ideas have influenced generations of philosophers and psychologists, his embrace of Nazism in Germany before and during the Second World War – and so many other factors in his psychohistory – make him an enigma. Can one’s life and works ever really be separated? In Heidegger’s case I can only conclude that they must. Heidegger has been analyzed by countless scholars, yet the man behind the philosophy remains inscrutable. Perhaps I’ve been kind here – in the most damning condemnation of both Sartre and Heidegger I have seen, Clive James in his “Cultural Amnesia: Necessary Memories from History and the Arts,” wrote: “…Heidegger and Sartre, were only pretending to deal with existence, because each of them was in outright denial of his own experience, and therefore had a vested interest in separating existence from the facts. Will it ever be realized that they were a vaudeville act? Probably not.” He also concluded that: “…Camus was struck with a congenital inability to be superficial.” Using Heidegger’s own words, then, one might conclude that Kierkegaard
and Nietzsche were truly more authentic than he in living their lives, and certainly they were less abstruse in their writings; and the same can be said of Camus in comparison to Sartre.

The emergence of terror management theory is reinvigorating existentialist psychology with its keen insights into the dynamics of anxiety, self-esteem, prejudice, and terrorism. I believe that an understanding of these findings will enable us to better cope with the anxieties of our times. Yet I don’t think these theorists can displace their philosophical predecessors – unless, of course, they can truly learn to “measure spring.” I have always taught my students that psychology is a science for the objective study of cognition and behavior. But after many years of this, I now think that psychology as a science must be equally balanced by a poetic, artful, and literary psychology, which imbues us with an appreciation for the fullness of the phenomenological, subjective, and essentially human side of existence. For this we need Henry as well as William James.

The sciences alone cannot illuminate the entire experience of human history without the light that comes from the arts and humanities.

—Antonio Damasio (2019)
**For Thought and Discussion**

1. As with Jung and Rogers, the existentialists were mainly concerned with adult development of the self. How does the existential therapy of May compare with those writers in terms of client/therapist interactions? And how different are these from traditional Freudian psychotherapy?

2. What in your opinion constitutes an authentic life? Can you name some people (famous or otherwise) that you regard as truly authentic? How about the opposite: someone who seems completely inauthentic?

3. What today do you think people today see as a great “threat from within” and a “threat from without”? How real are such threats? What kind of actions or policies might be used to mitigate such fears?

****
Part VIII:

Late Life and End of Life Issues

In Human Development
18. Late Life and End of Life Issues

---

I believe that we should make it a habit to think about death and dying occasionally, I hope before we encounter it in our own life.

– Elizabeth Kübler-Ross

It’s not that I’m afraid to die. I just don’t want to be there when it happens.

– Woody Allen

---

A Poet at Life’s End

The former Poet Laureate of the United States Donald Hall wrote “A carnival of losses: Notes nearing ninety” (Hall, 2018) shortly before his death. Here is an excerpt:

“Suppose I am the 150-year old maple outside my porch. When winter budges toward spring, I push out tiny leaves, which gradually curl yellowish green then enlarge, turning darker green and flourishing through summer. In September flecks of orange seep into the green, and October turns the leaves gorgeously orange and red. Leaves fall, emptying the branches, and in December only a few remain. In January the last survivors flutter down onto snow. These black leaves are the words I write.” (p. 14).

The use of the seasons as a metaphor for the stages of life is a common device, but Hall expresses his feelings beautifully in this short synopsis. He is telling his readers how his life has become circumscribed near the very end (cf., Joan Erikson in Chapter 9 on “very old age”). He had stopped writing poetry a number of years earlier due to his perceived limited ability to continue with his best works behind him. Yet this is still a wonderful piece of prose-poetry. When I read these lines, for me the black leaves, rather than
limitation, suggest my favorite imported Chinese black tea gently steeping in my panda-adorned cup. Delicious! Would that we should all fare so well mentally at this stage of life!

**Death as the Final Stage of Life**

Dying is, of course, the final stage of life as we know it. Confronting death is indeed challenging, not only for the aging or dying person, but also for her or his family, friends, and community. Earlier chapters on Jung and (especially) on Erikson examined some of the psychological issues faced when approaching death in old age, but stopped short of dealing with preparing for death itself and with the process of dying. The present chapter explicitly examines such end of life issues, including psychological states and stages of the dying person, grieving and emotional reactions on the part of others, legal and medical matters, and caring for the terminally ill.

People usually think of dying as the final act in a lifetime drama; a natural end following advanced age. But the tragedy is that some people also die without having lived long lives. Obviously, death can occur in infancy, childhood, or any stage of life prior to old age. Dying “before one’s time” presents its own special problems of coping, adjustment, and, on the part of those close to the dying person, bereavement.

The following section examines the pioneering work of Elizabeth Kübler Ross (1969) on the stages of death and dying. The reader should be advised that later research suggests that not all of these stages are always present, and that earlier stages (especially denial and anger) may recur later as well; hence, the ordering of the stages is not always consistent. What is important, however, especially for family members, health caregivers and psychologists, is to be able to recognize each type of reaction when it occurs.
Kübler Ross’s Stages of Death and Dying

First Stage: Denial and Isolation

How does a person react upon learning they have a terminal illness? The very first or initial reactions vary considerably from one person to another, ranging from logical rationality and calmness to complete panic. There are too many variables involved to make any kind of simple generalization possible. Reactions depend a great deal on the patient’s personality, the manner in which the information is communicated, the certainty with which the diagnosis is presented, and on whether or not the patient already suspected something of the kind. But once the news sinks in the typical reaction is Kübler Ross’s first stage of dealing with impending death: denial and isolation.

Denial is that familiar, Freudian form of rationalization in which people simply refuse to face reality. The typical reaction (at least for the unprepared patient) is “No, no, that can’t be true.” It is as if the shock of realization is just too great to mentally process. It is also very much a normal reaction.

Denial can be an effective defense mechanism when not carried to extremes. It buys one time to marshal one’s defenses; to mount a more effective counter-reaction; to more effectively deal with the situation that one faces. In Elizabeth Kübler Ross’s words (1969, pp. 39 & 40) “Denial functions as a buffer after unexpected shocking news, allows the patient to collect himself, and with time, mobilize other, less radical defenses . . . . Denial is only a temporary defense and will soon be replaced by partial acceptance.”

Very rarely will a patient carry their denial to the end of life, but it does happen occasionally. Kübler Ross described one sad example of female patient with terminal cancer who would not listen to any medical information pertaining to her condition, even while hospitalized. She plied her makeup on her face ever thicker as if to disguise her ill condition until it became so grotesque that she resembled a clown. As with most cases of denial, this patient tried to isolate herself from others and wished to be left alone much of the time.
The Role of Health Care Providers
In Giving the Patient the News

Kübler Ross believes that it is not a question of whether to tell a patient he or she has a terminal illness but rather one of how to inform the patient. This requires considerable sensitivity. The physician should examine her or his own attitudes toward death, and must be very sensitive to the patient’s defenses and willingness to hear this news. Kübler Ross says “It is an art to share this painful news with any patient. The simpler it is done, the easier it is usually is for a patient who recollects it at a later date, if he can’t ‘hear it’ at the moment. Our patients appreciated it when they were told in the privacy of a little room rather than being told in the hallway of a crowded clinic” (1969, p. 37). It is cruel, she insists, to tell a patient of a terminal condition when she or he is not yet quite ready to hear this.

But Kübler Ross stated that “I think it is the worst possible management of any patient, no matter how strong, to give him a concrete number of months or years. Since such information is wrong in any case, and exceptions in both directions are the rule, I see no reason why we even consider such information” (p. 30). This advice should be tempered, she acknowledges, because the patient may need time to get his or her affairs in order while he or she still has the strength and resolve to do so.

Kübler Ross noted that physicians and nurses received training in how to save and prolong lives, but not in how to help a person come to grips with death. With such an attitude, losing a patient is perceived as a failure. Too often, then, doctors were willing to use any and all means available to keep the patient alive. However, this view seems to be changing – remember that her book was written in 1969. Increasingly today health care professionals are trained to deal more effectively and directly with end of life issues taking into account the patient’s needs and best interests.
Second Stage: Anger

For most patients the denial stage cannot last for a very long time. Once this reaction abates, and the reality of the situation sinks in, the patient’s reaction changes. Instead of “It can’t be true” the reaction becomes “Why me?” As with denial, anger is a perfectly natural reaction. Yet this emotion can be very hard for family and friends to comprehend, especially when the anger is displaced onto others, including his or her health care providers, sometimes in the form of temper tantrums. It is therefore very important to understand not only how the ill person feels, but why as well; or as Kübler Ross says, to put oneself in the position of the dying person. One must acknowledge the anger as a legitimate reaction. The sick person needs to be given time to deal with their anger as well as respect and understanding.

The anger stage usually lasts longer than denial. Although most people eventually move beyond this stage, some experience great difficulty in doing so. Complications may also result from unrelated mental health issues, such as unresolved anger from other sources. Kübler Ross described the case of a young nun, Sister I., with Hodgkin’s disease, who seemed to carry over childhood resentments, having always been expected to be the “good girl.” Her present situation was also compounded by other factors, including the death of her father at about the same time she was diagnosed, family business issues, and other forms of stress. Professional mental health workers or (if the patient is religious) chaplains or spiritual advisers can often help to move the patient through and beyond this stage, as was the case with Sister I.

Third Stage: Bargaining

Some people pass over the anger stage and enter into a period of bargaining, usually with God, in an attempt to extend the time that they do have, or at least to improve the quality of that time. Often they believe that if they are willing to make some sort of personal sacrifice then they will be granted such a favor in return. In some cases such “bargains” can indeed produce genuine good deeds, as when (for example) a dying father forgives a son or daughter for some past transgression – or perhaps asks for forgiveness himself. In
essence the dying person requests an extension, or “time off for good behavior.”

Bargaining in this manner is in some regards like a throwback to childhood, in which the “bad” child pleads with his or her parents – if they just give him another chance then he will be good. But even when bargaining seems childish the family, health care professionals, and mental health professionals, must be able to recognize bargaining behavior and to provide appropriate acknowledgment (if asked for) and support. However, bargaining is often private and secretive.

**Fourth Stage: Depression**

Eventually the dying person is no longer able to deny the certainty of death. Following the stages of denial, anger, and bargaining, she finally accepts this reality. This is the time when depression sets in. It often occurs when physical symptoms worsen and this deterioration cannot be ignored.

Kübler Ross distinguishes between two kinds of depression. The first she calls *reactive depression*, the second *preparatory depression*. Reactive depression is a response to a loss that has already occurred; loss of physical or mental functioning, or the resulting loss in self-esteem due to the medical condition. In contrast, preparatory depression concerns the future; it anticipates her final stage of acceptance.

Significant others can often help to brighten the mood of a person who is depressed for whatever reason. However, Kübler Ross believes that attempting to cheer up a person with anticipatory depression can be self-defeating. Whereas such a person may have a strong need for support, this need might best be met by other means than attempting to talk the person out of their depression: “In preparatory grief there is no or little need for words. It is much more a feeling that can be mutually expressed and is often done better with a touch of a hand, a stroking of the hair, or just sitting silent together. This is the time when the patient may just ask for a prayer, when he begins to occupy himself with things ahead rather than behind. It is a time when too much interference from visitors who try to cheer him up hinders his emotional preparation rather than enhancing it” (1969, pp. 87-88).
Kübler Ross believed that this form of depression is both necessary and beneficial in reaching the final, acceptance stage.

**Fifth Stage: Acceptance**

Acceptance of one’s impending death should not be mistaken for a happy state, but it can be a more peaceful state than the preceding four stages. When this stage is reached the patient has done some mourning and grieving for herself, and she is tired, probably weak, and even resigned. Some of the pain may be gone (at least the emotional pain) and the patient’s circle of visitors is usually diminished by her own choice. Perhaps she desires only to see one or two very close family members. Short visits may be best. Nonverbal sharing may be much more important than active talking.

Kübler Ross states that “This is a time when the television is off!…The patient may just make a gesture of the hand to invite us to sit down for awhile. He may just hold our hand and ask us to sit in silence” (1969, p. 113). Such private, intimate moments can be the most meaningful for both parties – the patient and the loved one, as both acknowledge silently that the end of the struggle is near.

**Evaluating Kübler Ross**

Research does not show clear support for Kübler Ross’s five stages (Kastenbaum & Moreland, 2018). As stated earlier, any, all, or none of these stages may occur in a given person, and when they do occur they may not happen in her specified order. However, at least some of the stages can be observed in many people, and all of them can be observed in some people. In the absence of a more comprehensive theory concerning the final stages of life, Kübler Ross’s stage descriptions can be highly useful to families and health care professionals alike. At least they provide some guidelines for signs to look for; and when they are present they also give some guidance as to how to react to them. But it seems fruitful to think of these stages as types of coping strategies that people may employ to varying degrees rather than as sequences through which they inevitably travel.

Kübler Ross should be remembered as a pioneer in the study of death and dying whose work helped focus an entire industry of health
care professionals on the critical importance of dealing with death and
dying in a realistic and dignified manner. Kübler Ross was an activist
and advocate for honest communication between caregivers, patients,
and families.

How do We Want to Die?

People are Living Longer

Today people live longer than ever before. This longevity is due
to many factors, including safer environments, healthier diets, better
medical care and treatment, and the conquest of numerous infectious
diseases with vaccines and antibiotics. Infant mortality – deaths in
childbirth and infancy – is no longer the threat it once was, and better
medicine and medical care facilities for the elderly have also extended
life at the other end of the age spectrum.

The latter can be a mixed blessing for some, when quality of life
issues are considered. Doctors and nurses are trained to save lives,
sometimes at all costs – including very real expenses to families and
insurance companies. Losing a patient in a hospital or rest home may
be regarded as losing a battle. In other words, losing a patient is still
sometimes considered a failure on the part of the medical
professional, even when the patient is elderly and may have little or
no hope for a life that is healthy, active, and free of pain.

Palliative Care for the Elderly and the Hospice Model

But a different model has begun to emerge. That model is one of
hospice and of palliative care, in which dying is seen (quite naturally,
one would think) as a normal part of life, and in which the patient
nearing the end of life is understood to have special needs that must
be recognized as that time of transition approaches. In hospice care
both patient and staff understand that death is close at hand – if not in
a matter of hours then perhaps in a matter of days or weeks. The
patient needs understanding and assistance, and the ability to control
her or his pain so that the last moments are not intolerable. The goal
of the staff is not to prevent death, but rather to make the patient
comfortable both in the process of dying, and with the process. Hence
palliative care treatment refers not to treating the patient’s illness;
rather it pertains to the provision of comfort to the terminally ill. In some cases this can include pain management through large doses of morphine.

Palliative care also includes provision of the small pleasures that a sense of normalcy requires. This includes (for most) companionship, entertainment, preferred foods; perhaps a holy book by the bedside. Comfort with the process means that the patient, family, and staff deal with the fact of the encroaching death, and do not fight it or ignore its inevitability. This can be painful or uncomfortable for those close to the patient, but facing this reality is necessary for the well-being of the dying person, at least if the person is mentally aware of his/her state and surroundings; for everyone concerned must make their necessary preparations. This means not only taking care of legal matters, such as wills and living wills, but also people need to be prepared psychologically for death. Simple acknowledgment is the all important start of all preparations and is also the most crucial step.

Today not everyone who is elderly dies in a hospital or nursing home. An increasingly number now dies at home or other hospice facility, perhaps even peacefully. In past eras it was much more common to die at home because long-term care facilities were not available and families simply had no other care options for their aging kin. Indeed, this might be the death we all desire, which is not to say that we actually desire death, but that given its inevitability, it is the preferred “model” for most of us.

In this newer model of hospice care terminally ill patients are treated at home, or if that is not possible, in a home-like atmosphere. Dame Cecily Saunders, an English nurse, began the hospice movement, which includes palliative care, in London with the founding of St. Christopher’s hospice in 1967. (See: Saunders and others, 1981).

Hospices are not so much places as they are concepts. They are organizations which are funded to some extent (depending on nation, state, or province) on private insurance and donations and/or public monies, and they are usually connected with hospitals, doctors and nurses, social workers, and chaplains or other representatives from local religious support groups. Hospice care does not include life support machines or intensive care units. Instead hospices stress
palliative care and the family, social, and spiritual needs of their clientele. They recognize that their patients are terminally ill, so their purpose is to aid in providing palliative care and a good quality of life for patients, no matter how much time they have remaining.

Living with Style into Old Age

I once visited my friend’s elderly mother in an assisted living home in Florida. Vera, who had lived well into her late nineties (and I do mean she had lived well) was mentally as sharp as anyone I knew; in fact, her short- and long-term memory capabilities easily exceeded my own. Physically, however, she required a walker to get around and some help with keeping up her daily household chores.

Vera had established a daily ritual in which she and several close friends participated: The cocktail hour. This elderly group of men and women gathered every day at four-thirty in their lounge to have a bit of a tipple – for some a cocktail, for others a simple fruit juice or ginger ale – and to exchange pleasantries. The latter often consisted of sharing the latest joke they caught via the Internet. The content of the jokes were almost always X-rated. Indeed, the two themes they seemed to enjoy the most were sex and the problems of aging!

I admit that I really could not keep up with her – dry vodka martinis are just not my forte. But I can say that I thoroughly enjoyed my brief visit. All of these people had become well acquainted with death – it happened to their comrades on a very regular basis. They were realists, yet they knew how to enjoy the moments that they shared together. They tried not to let the fact that they were aging get them down, even making light of it.

Although I usually ignore and delete jokes sent over the Internet I began to peruse them, looking for the kinds I thought they would enjoy, and then I began forwarding to my friend who in turn collected them for her mother and her friends.

Vera is gone now, having lived a full 98 years, and we miss her! But fortunately, I am told, the cocktail hour she established still remains in place. And the spirit with which she enjoyed her life
Decisions, Decisions

A living will is a document stating what sort of medical interventions a person would like administered if she or he becomes incapacitated and incapable of expressing her wishes. For example, does one wish to be kept on life support when all reasonable hope of recovery is gone? Or for a very elderly and sickly person, should physicians or paramedics attempt to resuscitate them following a major cardiac event? Reflecting on these choices it might seem that many people would choose the first option, but only those of advanced age who are very ill might choose the latter. But that example illustrates the need to revisit and review one’s living will from time to time.

Yet even the first case – not wishing to be kept on life support – can raise concern with some people who fear that their lives might be terminated prematurely by uncaring medical personnel or family members. There are many angles to consider in composing a living will, including different legal interpretations that can occur in different parts of the country or world. Yet composing a living will is something that everyone should consider.

Then there is also the extremely sensitive question of euthanasia, or unnaturally inducing death in order to relieve suffering. There are two forms of euthanasia: passive euthanasia – in which “extraordinary” treatment (artificial life support) is withheld – and active euthanasia (also called physician assisted suicide). In some countries and in at least some states in the U. S. physician assisted suicide is legal, but the practice remains quite controversial. There are many obvious moral and ethical considerations; to name just one, whether or not the patient’s mental condition is sound enough to be able to make the decision to die.

Between these two extremes – passive and active euthanasia – there is also a gray area: the patient may be allowed to self-dose on morphine in order to control his pain. At some point when the pain becomes uncontrollable this practice may lead to death by overdose.
Some people might find this practice acceptable whereas others might object for moral reasons, including in some cases religious beliefs.

Even people who see some merit in the concept of euthanasia worry (perhaps rightfully) about the possibility of abusive practices.

Such matters of life and death may not be easy to deal with but it is important to be aware of them as they may someday affect any of us in a very personal way, either directly when we ourselves near the end of life, or indirectly, as when a loved one is faced with such a decision.

**Grief and Mourning**

When we lose a loved one, we grieve, each in our own way as this is a path with no clear roadmap for us to follow. How long does grieving last? I think it best to think of grieving as a process rather than as a means of reaching a goal, that goal being something like “closure” or “getting over it” or “complete healing.” Does anyone ever completely recover from the loss of a child, or of a beloved spouse? (I still mourn the loss of some of my favorite pets, never mind my first wife or my parents!)

I composed the following poem based on my own childhood memories:

**A Child’s Grief**

old pete, a kindly man,
had been a plumber
who, after retiring,
gave my grateful father
most of his tools

the old man i knew was playful
if also a little odd
“eat your beans, mickey”
was something he said to me
as we sat ‘round the table:

his wife (my honorary gram’),
was seated by my mother
with baby brother
balanced on her knee,
next to me ‘n old pete

the next time i saw pete
(i was now five)
his face was waxen-grey
he was laid out in his dark suit and tie
on silky-white coffin lining

i was told that he had died
he would be buried and
we’d be together no more
but how does a child process that?
indeed, how does anyone?

I think I understood all of this intellectually. But emotionally experiencing the loss of someone, no matter what your age, is a time-bound process. The reality that someone has truly gone is not easily grasped. Is this a form of denial, or is it just a function of the way we are put together? I’ve known people who talk to their deceased loved ones after they’ve departed, at least for a limited time; and not only religious people who believe in an afterlife. As long as the ego is strong and the griever is non-delusional defense mechanisms are just that; they exist to protect the ego, and if such behavior helps a person to get through the grieving process I can see no harm in it.

Mourning time has no set limit; it varies from person to person. A mistake that some grievers make is to foreclose on the process (cf., Erikson’s teenage foreclosure), by rushing back into their “normal” mode of living, yet denying their need to mourn, by, for instance, dating a new person before sufficient time has elapsed for them following their loss. Indeed, counselors everywhere warn against making any major life changes before a sufficient time for mourning has passed. Mourning is a painful but necessary process!

What can be done to ease the pain of this process? Having close friends or family who can support is foremost. Seeing a professional
counselor or joining a grief support group can also be a lifesaver. But some people seek instead solitude. With such people, or with anyone who suffers a loss, it is still important to be at the ready to support them whenever the need should arise.

But how can a friend and family member help? First of all do not avoid the subject of death when it arises. If a person is not comfortable with this then he or she should probably back away from the situation. Death is the elephant in the room!

Second, be ready to answer the call when needed. Keep in mind that the person in mourning is probably very lonely and in need of other people—but only when they are receptive.

Third, avoid “answers”! Supporting them means mainly listening empathetically, not offering advice. Be especially aware of pressuring the person (e.g., “Hasn’t enough time gone by now? When are you going to get back to real life?”) An exception would be in making positive suggestions, as long as they are only suggestions. For example, “I found a great deal of comfort by joining a support group after my husband passed away.” Notice especially the “I” language (“I found…””) as opposed to the “you” reference (“You would find…”). This is support, not advice.

It is said that in life the only sure things are death and taxes. Some scammers can avoid taxes, but death eventually comes to all; we need to accept it as part of the life cycle. In that I offer a final word (poem):

Illogic

the old-timer confessed  
he gave not a gnat’s ass  
what the future might bring  
    once he’d passed on

why then at age ninety  
when the old oak tree fell


488
did he plant a sapling?
   can you say?

perhaps he thought he would
live to see it grow tall,
strong and formidable
   as he’d always been…

go figure.

****
Questions for thought and discussion:

1. What should a dying person be told about his/her condition? Does it depend on the person?
2. What about the dilemma of life-support and “heroic” measures? Living wills?
3. How can friends and family support a person in the final stages of life?
4. How do other cultures and societies deal with issues of death and dying?
5. How do we handle bereavement and mourning? What if the person dies “before her/his time”?
6. What role does religion and spirituality play in coping with death and dying?

In-class exercise: Using the above questions as a stimulus, write a brief “reflection” on the subject of death and dying. It can be personal (involve someone close to you) or impersonal (abstract). This is optional – anyone who has faced death and dying issues recently may be excused if they find this exercise uncomfortable!

****
Notes

19. After Words: a Personal Epilogue with Commentary on Affective Neuroscience

After a result of Damasio’s insight and other research studies since, neuroscience has ditched the whole idea of emotions and rationality as opposing forces like water and oil, that don’t mix. Emotions are an essential part of our intellect.

—Frans de Wall

In her book “Psychology’s Grand Theorists: How Personal Experience Shaped Professional Ideas,” Amy Demorest (2005) looks to the lives of Freud, Skinner, and Rogers, to show how their ideas were shaped by their own histories. I found this book fascinating, and place it high on books that I would recommend to undergraduate psychology students because of the way it links actual life experience to the theorizing of these representatives of the three “forces” in 20th Century psychology: psychoanalysis, behaviorism, and humanism.

I believe there is value as I’ve said earlier of biographical information on a writer that can be helpful in understanding that writer’s work. There is a pretense common in academic discourse that the personal and subjective should have no role, which is a kind of mask for “invisible authority.” This notion is also stressed by Gordon Allport (e.g., 1962) in his “morphogenic” approach to psychology (discussed in the chapter on traits) as well as by Dan McAdams (e.g., 2015). But in this section, which is a separate matter from the rest of the book, I relate some of my own childhood experiences—including some from my early days—to the theories of development discussed in the text. As with certain other chapters, this one may be omitted, depending on the instructor’s discretion in planning the course syllable. What I am attempting here is to personalize the context by showing from a first person’s perspective how these theories can be viewed.

Memories from early childhood especially can be problematic. Memory is known to be a reconstructive process since even before the time of Charles Bartlett’s “Remembering” (1932). Here’s Kuhlman (1906, pp. 342-343): “…the total process of recall is not recall at all, and can never be described even half correctly by calling it reproduction. It is, rather a construction, not a reconstruction, a
construction of a certain result that is accepted in place of the original, and far from a reconstruction of a past memory” (cited in Summers & Fleming, 1971). This theme has continued to be reinforced by psychologists through the years. Elizabeth Loftus (e.g., 1997) has shown experimentally how unreliable our memories are, and how easy it is to alter them. I need not review further studies here (but see “The Fallability of Memory” in Saxe, 2018, pp. 101-122, for a more recent account) except to offer these up as a something to keep in mind when reading the subsequent text, while keeping the following in mind as well:

   Early memories are isolated bits of experience remembered for reasons that are often difficult to articulate; and because they have no greater narrative in which they can be framed, they float. At the same time, they may have more purity than later memories, for the same reasons. (Hustvedt, 2006, p. 24).

**Earliest Dream (Age Two?)**

When I was perhaps two going on three, I can still recall some of the events in my early life related to toilet training: the sudden urgency of the need to urinate or defecate, and the grabbing of the nearest family adult member to help; to lead me to the bathroom, and so forth. I would be literally dancing.

I was fascinated by the processes of elimination, as are all children of this age. Where do those poops go when you flush the toilet? My little friend Tony had a way with toilet paper rolls, he would slap at them and watch as the roll unfolded. Kippy would use a kind of karate chop as his way of tearing the paper from the roll. Needless to say, both of these methods could be messy, but that’s what this age was all about, wasn’t it? We used to do finger painting using some colored oils that we smeared upon a sheet of paper (or some such substance) to make interesting patterns. At a slightly earlier age we may have used feces as our chosen medium for “finger painting.” If these anecdotes make you feel uneasy, perhaps you are not ready to have children (wink).
My dream was this: I felt myself being flushed down a toilet, experiencing a sudden rush through the pipes in a gigantic whoosh. It was truly a “wet” dream. It ended abruptly, yet it was not an unpleasant dream.

In thinking back on this dream I had to wonder, could this sensation be based on a physical memory fragment of being ejected from my mother’s birth canal on the way to being born? Children do not, it is believed, retain memories from early development because the hippocampus in the brain, which plays a role in memory consolidation, does not develop until around age 3. But would this rule out affective memory, or memory of bodily sensations (feelings)?

[The science fiction writer Ray Bradbury (1996) claims he not only recalls his birth, but also his undergoing circumcision. I am open to this possibility, and it is not for me to say; but I accept that my dream may have been merely an unconscious fantasy based on my observations of toilet engineering and nothing more.]

The Little Scientist (Age 3)

I was in my parents’ bedroom watching my father take off his tie and shirt after work. He said he had something to show me.

My father’s parents had immigrated to the US early in the 20th Century from Scotland. He had no education beyond high school but perhaps this cultural background helped shape him into the very rational man that he was.

He demonstrated a coin trick (I can’t recall exactly what it was anymore) but explained how the illusion was created. Then he said, “There is no such thing as magic. Everything has a natural cause.”

It’s hard to explain the impact this insight had on me. Fairies, elves, ogres, and witches are not rational. All are fictional! This realization caused me some trouble with some of my little friends, and even occasionally with their parents.

My father was quite good at allaying my fears. He noticed how nervous I was during loud T-storms, so he took me to the kitchen window during one downpour as we watched the lightning flash in the distance, followed after an interval by some thunder. But he pointed to a rainbow that had been formed, holding a curved wooden coat
hanger in front view so that I could clearly make out the rainbow. The rainbow, he said, was a positive and beautiful display that followed a thunder storm, giving me a more secure sense of the scene. And he explained thunder and lightning in terms I could relate to.

A (Freudian?) Dream at Age Five

At this time of life we were living in New Jersey. In my dream, night was falling, and I was seeking shelter in our back yard. Ah, the cellar door could be my escape route. These were slanted double-doors that led to the family’s basement.

But I was thwarted at the door where I was greeted by a giant, fearsome wolf’s head which took up the entire doorway that blocked me from entering.

In the basement there would be a coal bin and a furnace for heating the house. I knew that our Doberman Blackie was in the furnace room and that he would protect me if only I could reach him, or vice versa. But he was tethered by a leash to a pillar.

In my imagination dogs were the good guys; the heroes who would protect us. Wolves, foxes, and panthers were evil and dangerous. Blackie in the safety of the cellar would protect me if he could.

Let’s take a moment to reflect on the dream symbolism, as I tried doing years late in my adulthood. The warm cellar? A return to the safety of the womb. The wolf guarding the entrance? Perhaps representing the pubic hair surrounding the “vagina” of the folding cellar doors? The dog tethered to the pillar? A fetus attached by the umbilical cord. The theme? Freud’s admonition that we can never return to the comfort of the womb.

All of this could make sense except for the fact that at age five I had no clue of the “facts of life,” as adults used to call them. I knew nothing of the birthing process, never mind how children were created. My mother just got my little brother from the hospital, and that was that.

Like a lot of kids in that post-Victorian age, I would be getting my sex education from other kids in the neighborhood. At age 10 a friend told me that as he understood things, the man and the woman went to
the doctor’s, who placed them behind a screen, and he peed on her. Well…

So I still don’t know quite what to make of this dream. If sometimes a cigar is just a cigar, then maybe sometimes a dream is just a dream. Alternatively, I suppose a Jungian might argue that these symbols were already deeply embedded in the collective unconscious. The moral here is don’t be too inclined to accept the certainty of your views—including the idea that there must be a single meaningful, and absolutely correct interpretation of one’s dreams.

**Discovery at Age Seven**

*But is the time we live in, or live by, continuous like Borges’ river, or is it more comparable to a succession of discrete moments, like beads on a string?*

—*Oliver Sacks*

As my seventh birthday approached I was quarantined to my home as I was recovering from a severe case of chicken pox. I had already missed several weeks of school, and now I couldn’t have my friends over for a party. My father decided to do something special for me, so he rented a home projector and some films to show me as my mother baked my cake.

One of these was a live action film showing bruins frolicking in a meadow. Another was a cartoon featuring “Kiko the Kangaroo.” (Aside: I had at this age a fascination with kangaroos that was probably inspired by Winnie the Pooh stories. I had been jealous of my friend Kippy, who had a stuffed ‘roo that I envied, so on the preceding Christmas my mother made me a beautiful kangaroo and two baby ‘roos fashioned from old blankets. I still have that toy (see below), and one of the babies, shown in the mother’s pouch, the other having been lost or destroyed during the ensuing years.)

My father explained to me that the young bears were “real” but the cartoon was not—it was just a series of drawings photographed and projected in rapid sequence to give the illusion of motion, like the little page flip books we children used to have which gave the same effect.
But then he explained to me that the frolicking bear cubs were also just a series of photos shown in rapid succession. In other words, movies, too, were in a sense, merely apparent motion as opposed to continuous movement.

Soon after this showing I found myself sitting in a bright sunroom, on a kind of a sofa bed, where I began thinking deeply about the things my father said to me regarding the films we watched together. Words like “continuous” and “discrete” were not a part of my vocabulary, yet I seemed to have those concepts in mind as I thought about life, thought, and perception. My thinking process went something like this: is living and perceiving continuous, or do we experience discrete chunks of life, and if so, what came between these chunks of experience? Or on the other hand, is life continuous but our perceptions of it discrete, and again, if so, what filled that gap between each bit of mental activity? And how long is a moment (of actual time, or of experiential time)? I thought and thought about this, and developed a kind of non-verbal symbol of my own in my head for the situations I was considering, which consisted of the silhouette of a man’s head, profile view, with a ruler superimposed over it (see crude drawing, below). I thought so hard I thought my head would split. But wasn’t this, in a sense, my first foray into psychometrics?
Then in a flash something miraculous happened. Suddenly my thoughts ceased altogether and I found myself in a new situation in which I was just “there,” alive to the present. I have no words to describe quite what this experience was like, but if I had to put it into words, it might be “Oh! I see!” I was simply “being” in the present moment, a place I had never been before, nor have I often been since that time. And it was as though time itself had stopped for a few brief moments.

Later, thinking back on this experience, I decided that there must be two sorts of mental activities, one sort of which one might call “analytic thought” (although that word was not in my vocabulary either), and the other this state of simply being.

Had I given myself a kind of Zen koan by attempting to understand time and experience, and did I awaken to some sort of “enlightenment”? Again, this was a very long time ago and although memories fade, I thought at the time that this seminal experience (which I was able to repeat for a short time afterward) was important enough to try to hold onto this memory; and so I have for all of the ensuing years.

But something else was going on at this time too. I began to realize that in some sense I was a “self” who saw the world in a whole new way. I cannot truly explain what this meant, except to say that I knew I had forever changed the way I experienced myself in this world. Piaget, no doubt, would call this a cognitive restructuring; a movement from one stage to another.
But even today I find it very difficult to put these experiences into words. They defy simple categorization. To understand me, you would have had to be there, in my head with me.

However, I do know that other children can also experience something similar. I know this, for instance, from reading Bradbury’s (1957) “Dandelion Wine,” in which he describes a marvelous scene that takes place between two boys. The scene I have in mind involves the brothers Douglas and Tom, who go berry picking with their father. In this passage Tom, in a moment of horseplay, leaps upon his brother:

They fell, thrashed, and rolled.

No! Douglas squeezed his mind shut. No! But suddenly...Yes, it’s all right! Yes! The tangle, the contact of bodies, the falling tumble had not scared off the tidal sea that crashed now, flooding and washing them along the shore of grass deep enough through the forest. Knuckles struck his mouth. He tasted rusty warm blood, grabbed Tom hard, held him tight, and so in silence they lay, hearts churning, nostrils hissing. And at last, slowly, afraid he would find nothing, Douglas opened one eye.

And everything, absolutely everything, was there.

The world, like a great iris of an even more gigantic eye, which has also just opened and stretched out to encompass everything, stared back at him.

And he knew what it was that had leaped upon him to stay and would not run away now.

I’m alive, he thought. [p. 9; ellipses and italics in the original.]

Then a bit later in the text Douglas says “‘Tom!’ Then quieter: ‘Tom...does everyone in the world...know he’s alive?’” (p. 10; ellipses in original). This, and the line “And everything, absolutely everything, was there” are the two phrases that resonate most strongly; those that capture the essence of the delight in my own fresh experience of being. And like the fictional boy Douglas, I also in my
childhood marveled at having discovered the reality of myself and my realized being-in-the-world. (I use the latter term, or sometimes just “being,” in the sense of Heidegger’s (192/1927) Dasein. Maslow’s (1968), sense of wonder, ecstasy, awe, or peak experience applies here as well.)

My own experience was cognitive in contrast to Bradbury’s character, whose experience was very physical. But I was then and always have been a very inward and introverted person. I suspect that similar experiences are typical of other children, though in many or most cases they have been forgotten.

What about twins, especially identical twins? How do they form their separate identities? My wife and I have no children of our own but I have identical autistic twins for grand-nephews through my first marriage (my first wife died in 1996). One day one of them came to her mother and said, as if in great discovery, “There are two!” She was astounded and nearly cried. What to make of such a thing? Unfortunately, developmentalists cannot “get inside” young children’s minds, and that is too bad, because at young ages they are not able to explain to us what kind of experiences they are having in a way that we can understand.

Is language necessary for forming complex thoughts, or does language development precede understanding of cognitive concepts? Vygotsky, recall, believed that thought preceded language. In my case I could not have formed the thoughts I did without having learned some vocabulary, but at the same time, through the use of mental symbols, I was able to formulate some of my thoughts without a more extensive vocabulary, through the use of private mental imagery.
I hated school from the moment I entered kindergarten. At first I would vomit daily. The school nurse told my parents I must have a substantial breakfast in order to remain attentive during class. The day they stopped forcing breakfast on me was the day I stopped vomiting. (Another “conventionally correct” assumption proven wrong.)

I hated school because it took me from my own private world and my playmates into an alien world I could not understand. In reflecting upon my education, I believe it was not until I was in graduate school at Berkeley that my instructors were curious about what I actually thought, as opposed to the kind of facts they were attempting to cram into me. And I loved graduate school! But how could any adult have known what a rich inner life I’d had as a child; and how could I even begin to tell them if I’d been asked?

The worst of it came in the first grade when we were taught simple arithmetic. Each child had to stand in front of the class as the teacher held up index cards with numbers on it, such as “8 + 5 =”, and you were supposed to respond with the answer. If you didn’t have it memorized then you were penalized by having to stay after school until you got it. This is how I came to hate math. It now seems so odd, that I would end up not only becoming a statistics teacher in colleges but have also published papers steeped in math. But having such an experience forced upon me was like having breakfast stuffed into me, so of course, I rebelled, in my own quiet way. This was a kind of Lockian (Chapter 3) model of education, except somebody forgot that Locke said that education should not be punitive.

But I don’t mean to say it was all bad. I had some very good teachers in the third and fifth grades.
More about Shadow Work (Secondary School Years)

“Whoever fights monsters should see to it that in the process he does not become a monster. And when you look long into an abyss, the abyss also looks into you.”

—Nietzsche

In the chapter on Jung I included a fearsome sketch of my “shadow self” that I titled “Seeing Red.” Growing up I always felt inferior about being short (today I am 5-foot-6), and a fear that I could not compete with bigger boys at athletics. And moreover, I could not deal with schoolyard bullies. Following Shakespeare’s John Falstaff, I concluded that discretion was the better part of valor, and so was always able to avoid physical confrontations—except for one time in my life when I was in Tech School for the Air National Guard. I don’t know how it happened but I attacked a bully and, to the delight of my comrades, I whipped him. But it didn’t feel like “me” who did the beating, it was as if some alien creature had taken over my body. Something inside me just snapped.

I’ve always hated bullies and so I would wish I’d had the kind of physique I’d need to put them in their place.

But what if nature had blessed me with the physique of an Adonis? Would I really use it for the betterment of the world, by putting down these bullies?

Well, maybe not—what’s to say having all of that power might have made me into a bully too? Would the transformation of a 140 lb. weakling boy into a muscle-bound matinee idol have made me a better person, a kind of super hero? The possibility that, but for my size, I could have become an actual tyrant myself occurred to me, and I found myself lacking for a good answer. Yes, all of us are capable of entering the “dark side of the force,” even me. And such considerations are what “shadow work” is all about. Beware the monster within! And parents, you have a role in shaping your child’s sense of right and wrong.
Children can be Cruel

Don’t be Cruel.

--song by Elvis Presley

You have to be carefully taught to hate, you have to be very carefully taught.
—from Rodgers and Hammerstein, South Pacific

These quotes from the last section of the chapter on morality are worth repeating here:

“We used to think that babies and young children were irrational, egocentric, and amoral. Their thinking and experience were concrete, immediate, and limited. In fact, psychologists and neuroscientists have discovered that babies not only learn more, but imagine more, care more, and experience more than we would ever have thought possible. In some ways, young children are actually smarter, more imaginative, more caring, and even more conscious than adults are” (Gopnik, 2009, p. 5). Very young children are empathetic; even altruistic. They get upset when they see someone in pain. They are helpful: “If they see an experimenter straining for a pen that is out of reach, for example, they will obligingly help him to get it. In fact they’ll toddle all the way across the room and clamber over a couple of cushions to get there to help. They will not only get upset when someone is in pain, they will also try to help, petting and kissing to try to make it better” (Gopnik, 2009, p. 211).

But as they grow a little older, “life happens,” and they don’t always behave like little darlings in social situations with other children. How, indeed, do some children go on to become psychopaths? Or is this pre-programmed into a certain percentage of them? For this we seem to have no answers at present, though we are indeed learning about brain abnormalities in such groups via brain scan technology.

Yes, “normal” children can be cruel. I wrote the ensuing poem based on my own memories of childhood in the school yard. This
poem is offensive; it employs racial and ethnic slurs, for instance. So why did I compose it? Because it is a truth that we might wish were not so, yet I believe it is important not to ignore truth.

I don’t believe in “politically correct” trigger warnings, but I did think a heads up here is in order, so please read on.

playground poetry
(as overheard, countless years ago)

I. Ordinary insults, aggression, and coprolalia
Kindergarten babies,
born in the gravy!
Nyah, nyah, nyah, NYAH, nyaa, nyaa…

Hold your tongue and say:
“My father works in a ship yard.”

Inka-bink a bottle of ink, the cork fell off and YOU STINK!

Look up…look down…look all around. Look at my thumb…gee, you’re dumb!

Susan and Raymond, sittin’ in a tree
K-I-S-S-I-N-G
(NOWEDIDENT!)

Now hold your tongue and say:
“I have a big red apple.”

Nyah, nyah, nyah, NYAH, nyaa, nyaa…

I see London, I see France
I see Sharon’s underpants!
(Yeah, that’s so funny I forgot to laugh!)

There’s a place on Mars
Where the women smoke cigars
And the men are small
They are five feet tall

Made ya look, made ya look
Made ya buy a penny book

I can make you talk like an Indian.
(How?...oh, you.)

Nyah, nyah, nyah, NYAH, nyaa…

II. Genuine cruelty

Fatty, fatty
Two by four
Can’t get through
The kitchen door.

Say black eyes backwards.
Eyes black?
Yo’ sho’ is, honey

Wop, wop,
goes the top
of the Italian
helicop

Dandy Randy
what a pansy!

Cholos
will sucker punch you
down below.

Blue, blue, you’re a Jew
Nyah, nyah, nyah, NYAH, nyaa nyaa…

III. The takeaway

Whose children’s voices were those,
Entombed in a time-vault from yesterday;
And what (can you even guess)
Are your children saying today?

(A poem does not necessarily have to be positive and inspirational to be of value.)

I confess, sheepishly, that as a teen, I sometimes sided with the bully. My younger brother reminded me of this many years later—a local boy, Ron (not his real name) liked to pick on him and I never came to his defense. I apologized to him. Was I “identifying with the aggressor,” was it “if you can’t like ‘em, join ‘em,” or a case of conformity (“side with the crowd and you’ll be accepted”).

Religion at Age Eight and Beyond

There were two important male models for me as I was growing up, both were old men with white beards who seemed to know whether you’d been bad or good. I’m speaking of God and Santa Claus, of course. One lived somewhere in the sky and the other at the North Pole; one fat and jolly, the other dour and judgmental.

Being a good little empiricist, and an amateur detective at that (I had read all of Sherlock Holmes) I knew that Santa was real because of clear evidence. Who else would consume the hot chocolate and cookies we set out for him on Christmas Eve? Who else would pack the living room with toys and presents before departing up the chimney?
But God was another matter. I never saw him, nor any trace of him, nor did anyone I knew. So I was fast becoming a little atheist. God, if you’re there, show yourself!

The problem I encountered was this: Everyone else in the world believed in God (or so I thought), so I must be mistaken, and so ended my heretical ways.

My mother was a religious, church going Christian—though not of the fundamentalistic sort. But I learned from my father when I was about fourteen that he was an atheist! What confusion that caused! But at around age 20 the minister at the church we attended turned out to be, in my mind, a bigoted hypocrite, and the Bible stories seemed far-fetched, so I’d had it with that church.

Today I say (as seems to be the popular thing to say) that I’m “spiritual but not religious.” My views have been shaped by the likes of such disparate thinkers as Robert Wright, Sam Harris, Alan Watts, Shelby Spong, Ken Wilbur, Elaine Pagels, Karen Armstrong, and many others. But things are not all that simple. Who I am now, and what I believe, is no one else’s business. But what is the fate of a boy with a spiritual, religious mother and a very logical, atheistic father? This mixture has proven a blessing to me. I have no need to foreclose on any particular belief system while still feeling able to connect somehow with “the universe.” Here’s a poem that bears upon my present mind set:

mysterium

some say we are here to learn
but do we?
and if so, what are we to discover?

nothing that can be written down
or memorized
or bumperstickerized
so, what then?
can there be any way to state
that which is ineffable?

only allow love to manifest
and let go the rest

**Can the Arts Bring Feelings into Science?**

So what is it about poetry that makes us hear a message in a different tone than when we read prose? Much has been written on this but mainly I believe we are responsive to poetry’s emotional impact; it hits us with a feeling-tone as opposed to a literal messaging. Some cognitive neuroscientists such as Antonio Damasio (e.g., 2003, 2005) and the late Jaak Panksepp (2004; Davis & Panksepp, 2018) recognized the enormous, but underappreciated, role of feelings in the psychology of everyday experience. That’s why I believe poetry has such a potentially valuable place in our field. Listen, feel, and learn employing otherwise less frequently used portions of our brains.

But what about history, music and the other arts? Today we can find abundant poetry—poetry with a beat—via the many talented hip-hop artists, who truly are today’s minstrels. They present us with so much great material concerning the human condition, or at least the present state of our existence. Lin-Manuel Miranda (2019) states: “I believe that great art is like bypass surgery. It allows us to go around all of the psychological distancing mechanisms that turn people cold to the most vulnerable of us.” (This was in particular reference to the crisis at the US-Mexican border we are witnessing as this is being composed.) The musical and the theater also provide platforms for experiencing empathy. Miranda cites virtually all of Rodgers and Hammerstein’s music as further examples. Or think of, say, “A Chorus Line,” or Miranda’s own “Hamilton.”

Photography? Consider Dorothea portraits of depression era people (e.g., Meisler & Lange, 2019). Or her images taken of the Japanese-Americans incarcerated during World War II (Cahan,
Williams, & Lange 2016). Painting? We need look no farther than to Picasso’s famous Guernica. These riveting works conjure in all but the least feeling of us strong feelings and emotions—and emotions eventually drive us to action. These are a few of the examples from the world of the humanities that can expand our psychological understanding of who we are.

In today’s lingo, art in all of its forms can make us feel more “woke.”

As Miranda concludes, all art is political. But more than that, it is about feelings. And feelings have been the neglected “little brother” in psychology; our field historically has been more concerned with cognition than with feelings, but with some exceptions (e.g., Panksepp, 2004; Damasio, 2019; Margoci, 2016; de Waal, 2010; 2019). Panksepp’s book is appropriately entitled “Affective Neuroscience” (in contrast with “Cognitive Neuroscience” by Gazzaniga, Ivry, and Mangun, 2019, now in its fifth edition).

In one of the most famous case histories in psychology, Phineas Gage, a railroad construction worker had a large metal rod thrust completely through his brain. He lost much of his frontal lobe, but remarkably remained capable of ordinary activity; except for the changes in his personality. Whereas he was formerly pleasant, capable, even shrewd, following the accident he became truculent, difficult to deal with, and an alcoholic. Importantly, he was unable to plan or make decisions. The change in his personality from “Jekyll to Hyde” was entirely remarkable.

The case of Phineas Gage led Damasio (2005) to realize the strong connection between feelings and reasoning. In general feelings are required for good decision making, despite the common belief that rationality alone suffices to see us through our days. Now Davis and Panksepp (2018) have extended their work to include, as their title suggests, “The Emotional Foundations of Personality,” which relates findings from neuropsychology to the Big 5 factor analysis theory of personality.

Stay, tuned: feelings and emotions will be important areas of research in the future of our field. Will this advance bring us closer to bridging the gap between C. P. Snow’s “Two Cultures”? (Discussed in Chapter 15 on Jung, but in the context of the psychology of self).
The Evolution of Emotions

The anthropomorphism argument is rooted in human exceptionalism. It reflects the desire to set humans apart and deny our animality.

—Frans de Waal

Evolution, as always, played a role: What is true of people was also true of our mammalian ancestors, and even of some of their ancestors. In the past it was considered anthropomorphic to ascribe feelings and consciousness to our ancestors who were lower on the evolutionary tree. (Recall Morgan’s canon from Chapter 10.)

Now it is certain that these do, indeed, precede us in both arenas. It is not the case that we humans are exceptional; but rather that we have underestimated our animal relatives.

Do you know how to make a lab rat laugh? Tickle it! Yes, a tickled rat will laugh, but not with a sound that is audible in human hearing range (Panksepp, 2004). How “human” is that? Chimps also laugh when tickled (de Waal, 2019), and both species also enjoy play. In general, every emotional expression found in humans can be found in apes; and even fish and reptiles exhibit familiar emotions.

Why, then, are scientists then so concerned about “anthropomorphizing,” especially concerning animal emotions? De Waal thinks it’s because traditionally people believed that they were a product of divine creation and were therefore different and special when compared to so-called “lower” species. Tip-toing through the “linguistic fallacy” to avoid calling an animal “happy” or “angry” he states that “By boiling everything animals do to instinct or simple learning, we keep human cognition on its pedestal. To think otherwise opens you to ridicule” (p. 48). He refers to this attitude as “linguistic castration.” Yet anyone who owns a pet will readily dispute the claim that animals don’t have emotions; and that they are the same emotions we humans experience.

De Waal also notes that Darwin published an important but often forgotten book following his “Origins” titled “The Expression of the Emotions in Man and Animals” (1998/1872); forgotten because the anthropomorphism seemed “embarrassing.”
Clearly the field of psychology seems poised for a “Developmental Science of Affect.” Indeed, ground has already broken in that potentially fertile but as yet little harvested field of study.

**One More Time for the Self in Psychology**

As readers may have noted, I’ve always been interested in the psychology of the self. I pooh-pooh those reductionists who want to claim that there is no self or consciousness (the “nothing-butters”). As a final word I offer this poem on the topic:

```
where is me?

lodged deep within this cranium
is there a “me” to be found?
no aver the scholars
of neuro-psychologistry
there we find only
myriad electro-chemical processes
vying for dominance
no one of which, alone (alas),
is capable of driving the bus

i suppose i could despair
if there were an “i” behind these eyes
yet some brain process herein
whispers softly:
“relax and continue to observe
the ongoing drama”
as science struggles ceaselessly
to grasp the essence of
mind and self
```

Your author is the son of an introverted, logical to the point of persnicketiness father, who is also an atheist, and a mother who is extraverted, outgoing, warm, and religious. So early on I was
confused about who I was, or could or should be, and that’s why I’ve spent many years attempting to understand my “self;” which might explain my interest in the psychology of the self. As for my mother and father, I am neither, yet both, and more. Here I can relate to Jung’s (1973/1061) concept of the *hieros gamos*, or royal marriage, which in his psychology symbolically represents a union of opposites.

Yet I am still working on myself; I always will be a work in progress, as long as I’m alive. Just as I know that you shall be.
Notes

1. de Waal (2019, p. 205),
3. According to Purves and others (2014), visual perception through time can be seen as processed via specialized brain mechanisms. Do you wonder why, looking above your bed to your overhead fan, it gives the illusion of occasionally reversing its direction? Crick and Koch (2003) proposed that visual “consciousness for awareness is a series of static snapshots, with motion ‘painted’ on them...[and] that perception occurs in discrete epochs...” (cited in Sacks, 2017, p. 177).
   But as far as anyone yet knows, “reality” itself is continuous; not a series of discrete moments.
5. de Waal (2019, p. 50).

****
References


www.ship.edu/7Ecgboeree/jung.html
http://webspace.ship.edu/cgboer/maslow.html
Boring, E. G. (1923, June 6). Intelligence as the tests test it. *New
Republic, 35-37.
Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-
experimental designs for research on teaching. In N. L. Gage (Ed.), *Handbook of research on teaching*. Chicago: Rand-McNally.


(Originally published 1976.)


525


Grant, A. (2013, Sept.) Goodbye to the MBTI, the fad that won’t die. *Psychology Today* Online:


https://www.psychologytoday.com/us/articles/201601/trivers-pursuit


Personality, 67, 295-329.


Peterson, J. (2019, April 8). I was constantly warned against ever talking about Jung. https://www.youtube.com/watch?v=1kYPgc-gCBw


Behavioral and Brain Science, 13, 707-784.


547


About the Author

James Fleming has taught psychology at several colleges and universities in California and Arizona. His doctorate from the University of California is in “Psychological Measurement, Evaluation, and Research Methods,” with further interest in personality assessment and development. He has over 20 peer reviewed publications on areas ranging from self-concept to children’s intrinsic motivation, cognitive development, transgenderism, human memory, and psychometrics. Today he lives in mountain country in Central Arizona with his wife Anita (in photo) and their several animal friends.