Emerging Adulthood: Cognitive Development

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Note: Worth Publishers provides online Instructor and Student Tool Kits, DVD Student Tool Kits, and Instructor and Student video resources in DevelopmentPortal for use with the text. See Part I: General Resources for information about these materials and the text Lecture Guides for a complete list by text chapter.

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Suggested Activities

Introducing Emerging Adulthood: Cognitive Development

"On Your Own" Activity: Developmental Fact or Myth?

Before students read about cognitive development during emerging adulthood, have them respond to the true-false statements in Handout 1.

The correct answers are shown below. Class discussion can focus on the origins of any developmental misconceptions that are demonstrated in the students' incorrect answers.

1. T 2. T 3. F 4. F 5. F 6. T 7. T 8. T 9. F 10. T

AV: The Journey Through the Life Span, Program 7: Early Adulthood

See Emerging Adulthood: Biosocial Development for a description of Program 7 and the accompanying observation modules, which cover the entire unit on emerging adulthood.

AV: Transitions Throughout the Life Span, Program 18: Early Adulthood: Cognitive Development

Program 18 closely parallels the text coverage describing the shifts in cognitive development that occur during early adulthood—for example, in the efficiency and depth of our thinking. As noted in the text, developmentalists offer three approaches to cognitive development. Like the text, this program takes a postformal approach.

The program first demonstrates the differences between adolescent and adult thinking. The thinking of young adults is more dialectical and adaptive—the kind of thinking they need to solve the problems of daily life.

Next, the program explores how the events of early adulthood can affect moral development. Of particular interest are Fowler's six stages in the development of faith.

The program also examines the effect of the college experience on cognitive growth. In general, with each year of college the individual becomes more cognitively adept. A final segment covers the effects of life events, such as parenthood, job promotion, or illness, on cognitive growth during young adulthood.

Teaching Tip: Adding a Service-Learning Project to the Course

Adding a service-learning project to a traditional lecture-based course works particularly well in a lifespan development course. Students combine learning course content from the instructor with an applied outreach activity that provides opportunities for relevant experiential learning. Students then consolidate their experiences through graded assignments, such as writing an essay relating class material to outreach experiences, or drafting a mock grant proposal that describes the perceived needs of the agency or program they visited.

This unit on emerging adulthood lends itself to a variety of service-learning placements. For example, students could volunteer at a local Child or Adolescent Advocacy Center (CAC). Most nonprofit CACs depend heavily on donations and volunteer assistance to maintain operations. As students learn about development in the classroom, they can apply their knowledge to various CAC activities (e.g., the link between cognitive development during emerging adulthood and how criminal or forensic interviews are conducted; the link between social development and the benefits of support groups for various developmental problems).

Additional examples of service-learning activities include working in a Big Brother/Big Sister mentoring organization; tutoring adolescents with reading, math, or other school-based problems; or volunteering at a domestic-violence shelter. Should you decide to include a service-learning project in your course, there are many resources for finding field placements for your students. A good place to start is the National Service-Learning Clearinghouse (www.servicelearning.org/).

Postformal Thought

Classroom Activity: The Flexible Nature of Cognition

To expand on the text discussion of the nature of cognition and as a a reminder of the text earlier discussion of cognitive development during middle childhood and a prelude to the discussion of cognitive development during adulthood, you might want to cover the concept of practical intelligence. According to Sternberg, *practical intelligence* is defined as behavior that operates in real life, consisting of "the things you need to know to succeed on the job that you're never explicitly taught. . . . You have to pick this stuff up on your own. . . . Whether you get promoted, or get raises, or can move to another company or another school is going to depend in part on how well you pick it up."

Traditional IQ tests do not, of course, measure practical intelligence. In fact, by one estimate the correlation between IQ test scores and job performance is a dismal 0.2. IQ tests are poor predictors of occupational performance because they measure other skills, generally the kinds of formal operational processes discussed earlier in the text.

Sternberg believes that each individual can develop his or her practical intelligence and that practical intelligence can be taught, at least to the degree that the skills are made explicit. One of Sternberg's pet projects involves teaching his Yale graduate students the fine art of publishing journal articles—how to write for particular journals, ways of increasing one's "publishability," and the like. Your students will probably concur with Sternberg's argument concerning the irrelevance of most intelligence tests to real-life problems and will certainly be able to cite personal examples. Handout 2 lists some of the behaviors that Sternberg and his colleagues have found to be characteristic of individuals who possess practical intelligence. Students should rate on a 1 (low) to 9 (high) scale the extent to which each of these is characteristic of their own behavior. Higher scores are associated with more adaptive behavior.

Sternberg's idea of practical intelligence (sometimes referred to as "tacit knowledge") has been applied in many different fields. As one example, military researchers have developed a method of assessing practical intelligence among military officers in order to understand why some are more effective than others (Hedlund et al., 2003). Researchers conducted interviews with Army officers at three levels of leadership in order to identify the type of practical, experience-based knowledge that is typically not part of formal training, yet is deemed crucial to leadership success. The resulting Tacit Knowledge for Military Leaders (TKML) inventory, which consists of a series of leadership scenarios, was administered to a total of 562 leaders at the platoon, company, and battalion levels. At all three levels, TKML scores were strongly correlated with ratings of leadership effectiveness as reported by peer and superior officers. After citing this study, you might challenge your students to come up with other areas of expertise that might naturally lend themselves to a good test of tacit knowledge.

Gottfredson, L. S. (2003). Dissecting practical intelligence theory: its claims and evidence. *Intelligence*, 31(4), 343–370.

Hedlund, J., Forsythe, G. B., Horvath, J. A., Williams, W. M., & Snook, S. (2003, April). Identifying and assessing tacit knowledge: understanding the practical intelligence of military leaders. *Leadership Quarterly*, 14(2), 117–124.

Sternberg, R. J. (2000). *Practical intelligence in everyday life*. New York: Cambridge University Press.

"On Your Own" Activity: Assessing Tacit Knowledge

The questionnaire in Handout 3 presents a variety of situations with which a corporate manager might be confronted. For each situation, students should rank the potential solution based on how they would most likely handle the situation. There are no right or wrong answers; what is "right" will depend on the particular individual.

After students have evaluated their responses, discussion should focus on the nature of tacit knowledge and on how each of the alternative ways of handling the test situations represents a particular style of adapting to the environment. Emphasize that tacit knowledge refers to information an individual picks up from life experiences and to his or her ability to draw upon these experiences in dealing with real-life problems. Although the tacit knowledge underlying success differs from one occupation to another (as embodied in the concept of expertise), people who are practically intelligent are better able to apply their tacit knowledge to a wide range of circumstances than those who are not.

The "answers" to the questionnaire are listed below. Note that a "+" indicates a relatively higher rating by individuals more advanced in the field relative to individuals less advanced in the field; a "-" indicates a relatively lower rating by individuals more advanced in the field. Keep in mind, then, that the +'s and -'s are relative. There are no correct answers, per se, only trends in distinguishing more from less experienced individuals.

1.	a. –	2. a.+	3. a. –	4. a. +	5. a. –
	b. –	b. –	b. –	b. +	b. –
	c. –	c. +	c. –	c. +	c. –
	d. +	d. –	d. +	d. –	d. –
	e. –	e. +	e. –	e. –	e. –

Sternberg, R. J. (1999). *Tacit knowledge in professional practice*. Mahwah, NJ: Lawrence Erlbaum.

Sternberg, R. J. (1986). *Intelligence applied: Under*standing and increasing your intellectual skills. New York: Harcourt Brace Jovanovich, pp. 321–323, 325.

Classroom Activity: Pedagogy and "Andragogy"

When adult education first became popular, experts assumed that the same methods and techniques used to teach children could be applied to adults. Although the word *pedagogy* has come to refer to the general art and science of teaching, its Greek root actually means "leading children." In the 1950s, as research began to show that adults and children do not, in fact, learn in the same ways, some European educators started using the term *andragogy*, from the Greek words "anere" for adult and "agogus," for "helping" to refer specifically to the art and science of teaching adults.

Today, and ragogy has become a leading "brand" in the theory of adult education. It is based on five key assumptions, which you might wish to present to your students for discussion.

- *Motivation to learn:* Adult students need to first know why they need to learn something.
- *Learner self-concept:* As people mature, their self-concepts shift from being dependent on others toward increasing independence.
- *Role of learners' experience:* Adult learners have a variety of life experiences that represent their richest resources for learning.
- *Readiness to learn:* Adults are ready to learn those things they need to know in order to cope effectively with life situations.
- Orientation to learning: Adults are motivated to learn to the extent that they perceive that it will help them perform tasks they confront in their life situations. In other words, as people mature, their perspective changes from a "subject-centered" to a more "problem-centered" orientation toward learning.

Proponents draw a parallel between McGregor's Theory X and Theory Y models of management and the pedagogic and andragogic approaches to education. According to this view, Theory X managers (and teachers who follow traditional pedagogy) assume that workers (learners) are basically lazy and extrinsically motivated (by money or grades). It follows, then, that Theory X managers (and traditional teachers) direct (teach) from above (in a nonparticipatory, lecturedriven fashion). In contrast, Theory Y managers (and andragogic teachers) assume that, given challenge and responsibility, workers (students) are motivated to demonstrate competency. Theory Y managers (and andragogic teachers) are therefore most effective when they encourage participation and give employees and students more control over the work and learning environments.

Holton, E. F., Knowles, M., & Swanson, R. A. (2000). *The* adult learner: *The definitive classic in adult education and* human resource development. New York: Elsevier.

McGregor, D. (1960). *The human side of enterprise*. New York: Mc-Graw-Hill.

Critical Thinking Activity: Thinking in Emerging Adulthood

Each unit of these resources contains a critical thinking exercise designed specifically to test students' critical thinking about a topic covered in the text. Handout 4 contains a synopsis of research or a brief scenario followed by a series of questions. In this case, you might also ask students to share examples of the various types of thinking with the class. Discussion can focus on clarifying any misconceptions regarding the different types of thinking, as well as on the larger issue of how the commitments of adult life propel cognitive development.

Sample answers to this unit's critical thinking activity follow.

- 1. Formal thinking is likely to benefit college students when considering a hypothetical proposition and then deducing possible consequences: If this, then that. For example, students have to deduce the consequences of taking a particular course next semester instead of this semester. Similarly, they have to consider the outcome of a change in major. Even more obvious is any situation that requires scientific thinking or logical reasoning, such as on an exam. Analogical reasoning, for instance, requires the recognition of a higherorder relation between two lower-order relations. For example, the essence of the analogy ATOM is to MOLECULE as CELL is to ORGANISM is the recognition that molecules comprise atoms, just as organisms comprise cells. Each lower-order relation specifies a part-whole relationship.
- 2. Dialectical thinking involves considering both sides of an idea (thesis and antithesis) at the same time and then forging them into a synthesis.

Most students, as do most people, often have to reconcile the thesis that "honesty is the best policy" with the antithesis of not hurting a friend's feelings—for example, when a student realizes that there's no need to always be brutally honest when reacting to a roommate's choice of clothing. The dialectical thinker is able to create a synthesis by deciding that honesty is a valuable goal, even when it seems hurtful at the moment.

- 3. Students may reflect on the impact that a particular teacher, relative, coach, or other mentor has had on their cognitive growth—as when relating "I wonder how she would handle this." Or, in describing the impact of adopting a child, they may reflect on how the event would cause a person to think and act like an adult or to put someone else's interests first.
- 4. Individuals at the mythic-literal stage take the myths and stories of religion literally. The sermon might therefore quote from stories in the Bible, Torah, Koran, or other respected texts that indicate that people who demonstrate commitment to the religious life of the community are rewarded. In contrast, individuals at the individual-reflective faith stage are able to articulate their own values and establish a commitment to a personal philosophy. The sermon might therefore be designed to provoke personal reflection and clarification of the congregation's values by posing pertinent questions, such as, "What are your responsibilities as a member of this religious community?"

Observational Activity: Describing the Development of a Developmental Psychologist

Kathleen Galotti of Carleton College has developed an alternative term paper assignment for her students that you may find useful (Handout 5). Each student chooses (or is assigned) a different developmental psychologist, reads as much of that person's recently published work as is feasible, and then writes a term paper describing the developmentalist's work, focusing on the question, "How has this person's work developed?"

Galotti finds that this assignment effectively addresses several objectives, including (a) to help acquaint students with the primary research literature in developmental psychology; (b) to help students understand that "entities other than infants and children (e.g., careers) also undergo development"; and (c) to provoke critical thinking about development.

Galotti notes that some of the most popular target psychologists are Diana Baumrind, Jay Belsky, Jeanne Block, Micki Chi, Carol Dweck, David Elkind, Rachel Gelman, Carol Gilligan, Susan Harter, Martin Hoffman, James Marcia, Robert Selman, and Eliot Turiel. (You may wish to limit the list to developmentalists who specialize in adulthood.) She also suggests that because of the challenging nature of the task, it is a good idea to organize voluntary discussion groups for students to share ideas in how best to tackle the project.

Galotti, K. M. (1989, February). Describing the development of a developmental psychologist: An alternative term paper assignment. *Teaching of Psychology*, *16*(1), 20.

Morals and Religion

AV: Moral Development (20 min., CRM/McGraw-Hill)

The film begins with a re-creation of Milgrim's famous experiment on obedience and then explores the relationship between level of moral reasoning (as Kohlberg defines it) and willingness to shock the victim. As one might expect, research has shown that subjects who resisted the orders to continue shocking the "learner" in the original experiment were more likely to reason at a higher stage. However, the film points out that some people at the highest stages also delivered maximum shocks, so the correlation between moral thought and behavior is by no means perfect. Then narrator David Rosenhan explains the social learning approach to moral development, again using the same experimental manipulations that Milgrim did.

AV: Socialization: Moral Development (22 min., HarperCollins)

This film explores the major theories of morality and re-creates several classic experiments addressing such questions as: What is the source of morality? Is it learned? Are ideas of good and evil universal?

Classroom Activity: Classroom Debate: "Resolved: Males and Females Are Socialized to Approach Moral Questions in Different Ways"

The text describes Kohlberg's stage theory of moral development in relation to psychosocial development during middle childhood. An important criticism of this theory concerns the research methodology on which the theory was based.

Kohlberg studied moral reasoning by examining the responses of children, adolescents, and adults to hypothetical stories that posed ethical dilemmas. Although only male subjects were tested, Kohlberg believed that his results applied equally to females.

As noted in the text, Carol Gilligan believes that girls and women see moral dilemmas differently from boys and men. Males tend to evaluate "right and wrong" according to abstract principles such as "justice." Females, on the other hand, tend to focus on the context of moral choices and are more concerned with the human relationships involved (a summary of her model of moral development follows). Although the latest research has not validated Gilligan's theory, debating this issue will help clarify students' understanding of moral reasoning in women and men.

Level I: Orientation of Individual Survival. The woman's thinking is based on practical and personal self-interest.

Transition I: From Selfishness to Responsibility. Recognizing her relatedness and responsibility to others, the woman begins to think of the welfare of others.

Level II: Goodness as Self-Sacrifice. Following conventional reasoning, and being overly concerned with how others view her, the woman sees goodness as the subordination of her own needs to those of others.

Transition II: From Goodness to Truth. Less concerned with what others think, the woman evaluates the morality of her behavior on the basis of its consequences and her intentions.

Level III: The Morality of Nonviolence. The woman's moral reasoning is governed by the desire to avoid hurting anyone else.

Gilligan contends that Kohlberg's theory, biased as it is toward men, interprets the male practice of reasoning from abstract principles as evidence of higher moral reasoning than the female practice of basing her moral decisions on a consideration of relationships and real-world context.

Gilligan has argued that neither pattern of moral reasoning is superior to the other and that the two perspectives simply reflect differences in how females and males are socialized. Gilligan further contends that women may be "reluctant to judge right and wrong in absolute terms because they are socialized to be nurturant, caring, and nonjudgmental."

As indicated earlier in this discussion and explained in the text, Gilligan's theory is no less controversial than Kohlberg's, however. Several extensive reviews of the literature on moral reasoning have found no evidence of systematic gender differences. When gender differences are found, they are often confounded by differences in education level and verbal fluency, which can influence scores on a test of moral reasoning.

To increase your students' understanding of the complexity of this controversy and the countless variables (gender, socialization, education, and so forth) that influence moral reasoning, follow the guidelines in the General Resources section of this manual for scheduling a classroom debate on this resolution.

How your students divide themselves into teams for this debate might itself provoke a productive classroom discussion. A natural division of teams might be males versus females. This is likely if your students focus on the issue of whether the literature on moral reasoning is biased against females. Alternatively, there may be a nature–nurture dichotomy of perspectives, reflecting student differences in the perceived importance of learning (socialization) in the moral reasoning of males and females.

Bruess, B. J., & Pearson, F. C. (2002). The debate continues: Are there gender differences in moral reasoning as defined by Kohlberg? *College Student Affairs Journal*, 21(2), 38–52. Elm, D. R., Kennedy, E. J., & Lawton, L. (2001, September). Determinants of moral reasoning: Sex role orientation, gender, and academic factors. *Business and Society*, 40(3), 241–265.

Gilligan, C., Ward, J., & Taylor, J. (Eds.). (1988). *Mapping the moral domain*. Cambridge, MA: Harvard University Press.

Jaffee, S., & Hyde, J. S. (2000). Gender differences in moral orientation: A meta-analysis. *Psychological Bulletin*, 126(5), 703–726.

Kohlberg, L. (1981). The philosophy of moral development. New York: Harper & Row.

Walker, L. J., deVries, B., & Trevethan, S. D. (1987). Moral stages and moral orientations in real-life and hypothetical dilemmas. *Child Development*, 58, 842–858.

Problem-Based Learning: Cheating Teachers

The Introduction's Classroom Activity: Introducing Problem-Based Learning describes this relatively new pedagogical tool. Following is a sample problem that you might want to give to your students as part of your coverage of cognitive development during emerging adulthood.

A few years ago, *Freakonomics* researchers Steven D. Levitt and Stephen J. Dubner broke a story about cheating schoolteachers in Chicago. Their theory was that high-stakes testing creates a strong incentive for teachers to not fail students. In support, they found that a fraction of teachers went so far as to cheat on behalf of their students. Levitt and Dubner caught on after analyzing all the individual answers of every student in the Chicago public school system. They found virtually identical patterns of answers in the same class, strongly suggesting that after students had turned in their tests, their teachers were going through and changing enough answers to boost scores.

This type of cheating appears to be a global problem. In 2010, Australian teachers were caught changing students' answers on the country's National Assessment Program Literacy and Numeracy tests. In addition, some parents report that they were told to keep children with learning difficulties at home on test days. There were even reports of schools opening the tests early and preparing students accordingly.

Before you leave class today, your group must address the following questions: First, from what you have learned about cognitive development during emerging adulthood, is cheating more or less likely at this age? Second, after your group agrees on an answer to the first question, determine some resulting learning issues that need to be researched to answer the question "What can be done to prevent or discourage cheating on high-stakes tests?" Among others, these issues should focus on the impact of higher education on moral development and ethical reasoning.

Based on the decisions that your group makes today, you should devise a plan for researching the various issues. Two weeks from today's class, your group will present an answer based on the issues you think are relevant.

Freakonomics (2010, May 19). Cheating teachers are a global problem. the *New York Times*. http://freakonomics. blogs.nytimes.com/2010/05/19/cheating-teachers-are-a-global-problem.

Cognitive Growth and Higher Education

Teaching Tip: The Changing Nature of Higher Education

The text notes that in recent years the number of college students has increased significantly. In addition, more women, low-income, ethnic-minority, career-oriented, and part-time students make up today's student population. The number of older students attending college has also increased substantially. Although many traditional liberal-arts colleges were once resistant to the idea of older and other unconventional students, administrators today are scrambling to compensate for the enrollment decline caused by the end of the baby-boom cycle.

To amplify the text discussion of these changes, ask students to speculate on how this shift in the demographics of college student bodies might alter the impact of higher education on an individual's cognitive growth. If this trend continues, and carries over to the "typical classroom," what might be the impact on the traditional student in early adulthood? What impact might be seen by researchers studying developmental changes in cognition that occur during middle and late adulthood? If there are older students in the class who are returning to college after an absence during which their families and/or careers were established, ask them to contrast their present college experience with their earlier experience.

Developmental Fact or Myth?

- T F 1. Compared with adolescent thinking, adult thinking is more practical, flexible, and dialectical.
- T F 2. Traditional models of mature thought stress abstract, impersonal logic and devalue the importance of subjective feelings and emotion-al experience.
- T F 3. Most developmentalists believe that thinking that considers two sides of an idea or argument is an immature form of cognition.
- T F 4. Dialectical thinkers tend to see situations as static.
- T F 5. Studies have found that the differences between Eastern and Western thought are due to nature.
- T F 6. Research indicates that the process (although not necessarily the outcome) of moral thinking improves with age.
- T F 7. In matters of moral reasoning, males and females tend to be concerned with somewhat different issues.
- T F 8. Emerging adults are less likely than older or younger people to attend religious services or to pray.
- T F 9. Years of education per se are less strongly correlated with cognitive development than either age or socioeconomic status.
- T F 10. College education leads people to become more tolerant of political, social, and religious views that differ from their own.

Practical Intelligence

Following is a list of the attributes Robert Sternberg assigns to practical problemsolving ability. For each item, rate youself on a 1 (low) to 9 (high) scale the extent to which each is characteristic of your own behavior.

- _____ 1. reasons logically and well
- _____ 2. identifies connections among ideas
- _____ 3. sees all aspects of a problem
- _____ 4. keeps an open mind
- _____ 5. responds thoughtfully to others' ideas
- _____ 6. sizes up situations well
- _____ 7. gets to the heart of problems
- _____ 8. interprets information accurately
- _____ 9. makes good decisions
- _____10. goes to original sources for basic information
- _____11. poses problems in an optimal way
- _____12. is a good source of ideas
- _____13. perceives implied assumptions and conclusions
- _____14. listens to all sides of an argument
- _____15. deals with problems resourcefully

Assessing Tacit Knowledge

This questionnaire focuses on your views on matters pertaining to the work of a manager. The questions ask you to rate the importance you would assign to various items in making work-related decisions and judgments. Use a 1 to 7 rating scale—with 1 signifying "not important," 4 signifying "moderately important," and 7 signifying "extremely important."

1	2	3	4	5	6	7
not moderately					extremely	
important			important			important

Draw upon your full knowledge of the world in order to answer these questions. Try to use the entire scale when responding, although not necessarily for each question. For example, you may decide that none of the items listed for a particular question is important or that they all are. There are, of course, no "correct" answers. You are encouraged to briefly scan the items in a given question before responding, in order to get some idea of the range of importance of all of them. Remember, you are being asked to rate the importance you personally would assign each item in making the judgment or decision noted in the question.

- 1. It is your second year as a mid-level manager in a company in the communications industry. You head a department of about 30 people. The evaluation of your first year on the job has been generally favorable. Performance ratings for your department are at least as good as they were before you took over, and perhaps even a little better. You have two assistants. One is quite capable, but the other just seems to go through the motions without being of much real help. You believe that although you are well liked, in the eyes of your superiors, there is little that would distinguish you from the nine other managers at a comparable level in the company. Your goal is rapid promotion to the top of the company. The following is a list of things you are considering doing in the next two months. Obviously, you cannot do them all. Rate the importance of each as a means of reaching your goal.
 - a. Participate in a series of panel discussions to be shown on the local public-television station.
 - b. Find ways to make sure your superiors are aware of your important accomplishments.
 - _____ c. As a means of being noticed, propose a solution to a problem outside the scope of your immediate department that you would be willing to handle.
 - _____ d. When making decisions, give a great deal of weight to the way your superior likes to have things done.
 - e. Accept a friend's invitation to join the exclusive country club to which many of the senior executives belong.

HANDOUT 3 (continued)

- 2. Your company has sent you to a university to recruit and interview potential trainees for management positions. You have been considering student characteristics that are important to later success in business. Rate the importance of the following characteristics according to the extent to which they lead to later success in business.
 - ______a. ability to set priorities according to the importance of the task
 - _____b. motivation
 - _____ c. ability to follow through and complete tasks
 - _____d. ability to promote one's ideas and convince others of the worth of one's work
 - e. the need to win at everything regardless of the cost
- 3. A number of factors enter into the establishment of a good reputation as company manager. Consider the following factors and rate their importance.
 - _____a. critical thinking ability
 - _____ b. speaking ability
 - ______c. extent of college education and the prestige of the school attended
 - _____d. no hesitancy in taking extraordinarily risky courses of action
 - _____e. a keen sense of what superiors can be sold on
- 4. Rate the following strategies according to how important you believe them to be as a measure of the day-to-day effectiveness of a business manager.
 - _____a. Think in terms of tasks accomplished rather than hours spent working.
 - b. Be in charge of all phases of every task or project with which you are involved.
 - _____ c. Use a daily list of goals arranged according to your priorities.
 - _____d. Carefully consider the optimal strategy before beginning a task.
 - ______e. Reward yourself upon completion of important tasks.
- 5. You are looking for several new projects to tackle. You have a list of possible projects and want to pick the best two or three. Rate the importance of the following considerations when selecting projects.
 - _____a. Doing the project should prove to be fun.
 - b. The project should attract the attention of the local media.
 - _____ c. The project is of special importance to me personally.
 - _____d. The risk of making a mistake is virtually nonexistent.
 - ______e. The project will require working directly with several senior executives.

From Intelligence applied: Understanding and increasing your intellectual skills by Robert J. Sternberg, pp. 321–323, 325. Copyright © 1986 by Harcourt, Brace & Company, reprinted by permission of the publisher.

Critical Thinking Activity: Thinking in Emerging Adulthood

Now that you have read and reviewed the material on cognitive development during emerging adulthood, take your learning a step further by testing your critical thinking skills on this perspective-taking exercise.

This unit has explored several types of adult thinking, including formal and postformal thought, dialectical thinking, and moral reasoning. Test your understanding of these ways of thinking by writing answers to the following questions.

1. Many different kinds of problems arise in daily life. Based on your own experiences, or those of a typical college student, give an example of a problem that is likely to benefit from formal operational thinking. Then explain why a logical answer to this problem is most appropriate.

2. Dialectical thinking involves the constant integration of one's beliefs and experiences with the contradictions and inconsistencies of everyday life. Give an example of the use of dialectical thinking in your own life, or that of a typical college student.

HANDOUT 4 (continued)

3. One theme of this chapter is that cognitive development is often propelled by critical life experiences. Describe one life experience that strongly influenced your own cognitive development. Alternatively, explain why being a stepparent or adopting a child might lead to cognitive growth.

4. Imagine that you are a religious leader attempting to convince the members of your congregation to become more involved in their community's religious life. What kind of appeal might be most effective with members at Fowler's stage of "mythic-literal faith"? with members at the stage of "individual-reflective faith"?

Observational Activity: Describing the Development of a Developmental Psychologist

This assignment is intended to help you explore how the thinking of developmental psychologists undergoes development over the course of their academic careers. I would like you to prepare a term paper based on the work of a recently or currently active developmental psychologist. You may select any individual from the list presented in class.

Once you have selected your target person, consult *Psychological Abstracts* and select 3 to 5 published works, *covering a range of years*, which are available in the campus library. After you have read these articles, consult the *Science Citation Index* or *Social Science Citation Index* to find two or three published works that address, or react to, some aspect of your target person's research. If you are unable to find any published reactions, find several articles written by other developmentalists working in the same area as your target person. After reading the collection of articles, prepare a 5- to 10-page (typed, double-spaced) report organized as follows:

- 1. *Introduction*. A paragraph that clearly and concisely describes the subject of the report, including a brief biography of the target person and a statement of the significance of his or her scholarly contributions to the field of developmental psychology.
- 2. *Research Section*. Two to three pages summarizing the target person's research articles, and the reaction pieces, which you consulted.
- 3. Your Opinions. A page or two of your own reactions to the articles you have read, focusing specifically on how the work and thinking of your target person have developed over the course of his or her career. You may find it helpful to consider the following questions: (a) Has the target person's research remained in one area or shifted from one topic to another? (b) In what way, if any, have scholarly reactions to the target person's research and writing on a particular topic span a period, how has his or her understanding of the developmental issue changed during this period?

Galotti, K. M. (1989, February). Describing the development of a developmental psychologist: An alternative term paper assignment. *Teaching of Psychology*, *16*(1), 20.