Nature, Nurture, and Human Diversity

OUTLINE OF RESOURCES

*Titles in LaunchPad are not described within the core resource unit. They are listed, with running times, in the Lecture Guides and described in detail at www.macmillanhighered.com/launchpad/(followed by myers11e, myers11einmodules, exploring10e, exploring10einmodules, or pel4e, depending on which text you are using).

RESOURCES

Introducing Nature, Nurture, and Human Diversity

Lecture/Discussion Topic: Why Is It Important to Answer the Nature–Nurture Question?

Ask a student volunteer to briefly explain what "nature" in this context refers to. "Biology" will be the most likely response. Ask another student volunteer to briefly explain what "nurture" in this context refers to. "Environment" will be the most likely response. Note that the word nurture carries positive connotations. Students may think of things like being warm and caring toward puppies and small children. Point out that nurture, in this context, refers to any environmental influence, positive or negative.

Ask students to engage in a completely academic exercise. "Imagine if we learned that criminal behavior were completely driven by a biological influence, such as genetics. If so, what should we do with people who engage in criminal behavior?" Answers will include "lock them up forever," "sterilize them," and even the most extreme "kill them."

Now ask students, "Imagine if we learned that criminal behavior were completely driven by an envi-

ronmental influence, such as parenting. If so, what should we do with people who engage in criminal behavior?" Answers will include "put children with different parents" and "help parents be better parents."

Point out how different these solutions are. What psychological science learns can have a big impact on public attitudes and public policy. Schizophrenia provides a case in point. In the early twentieth century, schizophrenia was thought to be caused by nurture, specifically bad parenting. By mid- to late-twentieth century, it was clear that genetics played a bigger role than anyone had anticipated. Treatment shifted from psychoanalytic therapies that addressed the unconscious conflicts of childhood to biologically based treatments such as medication and, less successfully, psychosurgery (Burton, 2012).

Today we have a greater understanding of schizophrenia. We know, for example, that stress can make symptoms worse. Psychotherapies that address coping skills can make medication more effective.

Burton, N. (2012, September 8). A brief history of schizophrenia. Retrieved from www.psychologytoday.com/blog/hide-and-seek/201209/brief-history-schizophrenia.

Lecture/Discussion Topic: Nature–Nurture and Public Policy

In the late 1800s and early 1900s, biodeterminism dominated psychological science. Researchers believed that genetics drove our personality and our intelligence.

Robert Yerkes, a psychological scientist, convinced the U.S. Army to let him give an intelligence test to their World War I army recruits, known as the Army Alpha Test. Test results revealed that immigrants from some countries did better on the test than immigrants from other countries did. Yerkes and his colleagues, including Carl Brigham (later, the architect of the Scholastic Aptitude Test Reasoning Test—the SAT), concluded that people in those countries carried genes for higher intelligence than did people in other countries (Gould, 2006).

After rank-ordering countries, creators of the Army Alpha Test argued that the top countries had better intelligence genes. The U.S. Congress used these data when establishing immigration quotas for the Immigration Restriction Act of 1924. Essentially, Congress gave higher quotas to countries where test scores were higher, believing that the people had better genes—genes that would benefit the United States. In countries where people had lower test scores, largely southern and eastern European countries, the quotas were lower. While Congress didn't explicitly say that's what they were doing, that's what they were doing. Officially, the quota for a country was set as a percentage of the people from that country who were already in the United States. What is telling, however, is that Congress chose to use the 1890 census numbers instead of the 1920 census numbers. Why 1890? Because most immigrants from southern and eastern Europe arrived after 1890 (Gould, 2006).

In 1930, Carl Brigham essentially disowned his 1923 book, *A Study of American Intelligence.* He no longer believed that the intelligence of people in a particular country could be boiled down into one score.

In the 1930s, as the Nazis came to power in Germany, many people in southern and eastern Europe wanted to emigrate to the United States. Because of the low quotas put on these countries, the United States would not accept them.

U.S. psychological scientists were not the only ones with a belief in biodeterminism. Adolf Hitler's eugenics were based on the same beliefs in biodeterminism.

Looking at the test today with 20/20 hindsight we can see that it had a number of issues, particularly that the test measured knowledge of American culture, not intelligence. Then why did some people from some countries score higher than others? The late 1800s and early 1900s was a time of high immigration. And some countries had a greater influence on the development of American culture than others. The highest scorers on the Army Alpha Test came from England, Scotland, Holland, Canada, Denmark, and Germany, countries that had the longest history with America. The lowest scorers came from Russia, Belgium, Greece, Italy, and Poland, the countries with the most recent immigrants (Brigham, 1923).

Brigham, C. C. (1923). *A study of American intelligence.* Princeton, NJ: Princeton University Press.

Brigham, C. C. (1930, March). Intelligence tests of immigrant groups. *Psychological Review, 37,* 158–165.

Behavior Genetics: Predicting Individual Differences

Genes: Our Codes for Life

Classroom Exercise: Genetic Factors

Following is some useful information for a discussion of the role of genetic factors in shaping our traits and behaviors. Explain how we inherit one set of 23 chromosomes from each parent. The two sets form pairs that contain alternate genes, called *alleles,* for the same traits. Sometimes, one is *dominant* and "overrides" the *recessive* one. For example, with eye color, it appears that there are at least two separate genes that determine the color of the iris. Iris color is determined by the amount of pigment (melanin) in the iris. Lots of pigment produces brown eyes, some pigment produces green eyes, and very little pigment produces blue eyes. One gene ("bey2") has a dominant allele that produces lots of pigment (brown eyes—B) and a recessive allele that produces very little pigment (blue eyes—b). The other gene ("gey") has a dominant allele that produces

some pigment (green eyes—G) and a recessive allele that produces very little pigment (blue eyes—b). What makes this setup especially fascinating is that B (lots of pigment) also dominates over G (some pigment) (Starr, 2006; The Tech Museum of Innovation, 2013).

If your bey2 gene is BB or Bb, you will have brown eyes, regardless of what your gey gene is. If your bey2 gene is bb, then the gey gene comes into play. If your gey gene is GG or Gb, then you will have green eyes. If your gey gene is bb, you will have blue eyes. In other words, to have blue eyes, you need to be bb on both the bey2 and gey genes.

Sandra Singer (1984) suggests still another example of a genetically determined difference for class demonstration: taste sensitivity to phenylthiocarbamide (PTC). To about 70 percent of the adults in the United States, a diluted dose of this chemical compound has an extremely bitter, unpleasant taste. For the other 30 percent, the same concentration of PTC is tasteless. Because of the proportion of "tasters" to "nontasters," and because no environmental factors seem to influence this difference in taste sensitivity, PTC taste blindness is most likely the product of a single recessive gene pair. PTC-impregnated strips are very inexpensive and can be obtained from most biology supply houses. Distribute the strips and calculate the number of tasters and nontasters. Singer reports invariably finding both in every group. Both groups will be amazed at the difference in the other's experience.

For a behavioral example, interlocking fingers provides a quick demonstration. Ask students to clasp their hands together so that their fingers are intertwined. Ask students which of their thumbs is on top, right or left? Now ask students to move all of their fingers so that the other thumb is now on top. For almost all of your students, this will feel peculiar. This behavior is thought to be governed by a single gene where left-thumb-on-top is dominant (Starr, 2004). It is independent of handedness.

Note that while more complex traits may also be simply determined (as is one's sex, though not by a dominant-recessive pattern), genetic influence is typically more complicated. That is, many genes interact to help create the trait.

Singer, S. (1984). *Classroom demonstrations: Individual differences.* Paper presented at the 92nd Annual Convention of the American Psychological Association, Toronto.

Starr, B. (2004, June 4). Understanding genetics. Retrieved August 12, 2014, from genetics.thetech.org/ask/ask22.

Starr, B. (2006, December 20). Eye color. Retrieved August 12, 2014, from genetics.thetech.org/ask/ask203.

Tech Museum of Innovation. (2013). What color eyes will your children have? Retrieved August 12, 2014, from genetics.thetech.org/online-exhibits/what-color-eyes-will-your-children-have.

Classroom Exercise/Student Project: Genetic Influences

To demonstrate genetic influences on perceptual experience, you may want to use the simple classroom exercise described in Sensation and Perception. "Genetic Effects in Taste" demonstrates how people's ability to taste the bitter substance PROP is genetically determined. About 75 percent of Americans are tasters; of those, 25 percent are supertasters. As noted in that exercise, you can use tongue painting and a reinforcement ring to assess supertasting.

Lecture/Discussion Topic: The Genetic Revolution

To expand on the text discussion of prenatal genetic testing, begin by asking your students these questions.

1. If it were possible, would you want to take a genetic test telling you which diseases you are likely to suffer from later in life?
2. If you or your spouse were pregnant, would you want the fetus tested for genetic defects?
3. Do you think it should be legal for employers to use genetic tests in deciding whom to hire?

In 2010, the American Association of Retired Persons (AARP) commissioned a survey asking 1000 respondents for their experiences with and attitudes toward genetic testing (margin of error = +/–3%).

Only 8 percent had been genetically tested. Why hadn't they been? The number one answer by far, with 63 percent, was that they had never considered it. Twenty-one percent did not want to know the results, while 29 percent would consider genetic testing if it would give them information about their risk for diseases such as Alzheimer's and cancer. Asked who should have access to their genetic data besides their doctor, 66 percent said "just themselves," while 29 percent thought their family should also know. No one thought that the military, employers, schools, or adoption agencies should have their data (Brown, 2010).

The U.S. federal government agrees that employers (and health insurers) have no right to your genetic data. In 2008, the Genetic Information Nondiscrimination Act was signed into law (U.S. Equal Employment Opportunity Commission, 2008).

Ask your students to consider what they would do if they were in Amanda Kalinsky's position. At the age of 26, Amanda learned that she carried the gene for Gerstmann-Straussler-Scheinker (GSS) disease, a neurological disease that will cause her to lose coordination, develop a neurocognitive disorder, and perhaps develop blindness and deafness some time between her mid-30s and mid-50s. And finally, she would die within 5 years of the onset of symptoms (Kolata, 2014).

Ask your students, If they were Amanda, would they choose to have their own biological children?

Amanda and her husband chose to have children, but through in vitro fertilization; they implanted only those embryos that did not carry the gene.

Brown, H. W. (2010). Views on genetic testing: An AARP Bulletin survey (Rep.). Retrieved assets.aarp.org/rgcenter/general/bulletin_genetic_testing_2010.pdf.

Kolata, G. (2014, February 03). Ethics questions arise as genetic testing of embryos increases. Retrieved from www.nytimes.com/2014/02/04/health/ethics-questions-arise-as-genetic-testing-of-embryos-increases.html

U.S. Equal Employment Opportunity Commission. .(2008, May 21). The Genetic Information Nondiscrimination Act of 2008. Retrieved August 12, 2014, from www.eeoc.gov/laws/statutes/gina.cfm.

Twin and Adoption Studies

Classroom Exercise: Striking Similarities

Striking similarities have sometimes been found between twins who are reunited after years of separation. Does this suggest the importance of the genetic factor in personality and behavior? Or will any two people find some remarkable similarities just by chance? To demonstrate the latter possibility, David Myers has created an activity from materials provided by Joseph Wyatt. Distribute a copy of Handout 1 to each student, pair students off (preferably with someone they don't know), and give them 5 or 10 minutes to see how many similarities they can discover. Tell them, "you'll differ in lots of ways—don't worry about these, we're just interested in whether you can find some similarities."

If you have an odd number of students, pair off with someone yourself. The first time Myers did this with a student, he found within 5 minutes that they "both like basketball, had watched Syracuse defeat Georgetown the previous evening, hate brussels sprouts, sleep seven hours, chew Wrigley's spearmint, use Crest, read *Time*, prefer nonfiction books, view the nightly news and not much else, are right-handed, outgoing persons."

Lecture/Discussion Topic: Behavioral Genetics

In 1989, the Minnesota Twin Family Study (MTFS) became the basis for Tthe Minnesota Center for Twin and Family Research (MCTFR) with 1400 pairs of identical and same-sex fraternal twins. They have grown to include overmore than 9800 twins, siblings, and parents (Minnesota Center for Twin and Family Research, 2011).

Researchers have used the MCTFR database to look at such variables as academic achievement, disorders (for example, eating disorders, ADHD, anxiety, depressive disorders), happiness, personality, and substance use. You can explore their research publications here:at mctfr.psych.umn.edu/research/researchtopics.html.

Much of the new behavioral genetics research, including that conducted by the MCTFR, is looking at the interaction between genetic and environmental factors (McGue, 2010). One such approach looks at endophenotypes. An endophenotype is the expression of genes that leads to some type of behavior given the right circumstances. Alcohol use disorder is a good example. Two genes are largely responsible for producing the enzymes that scrub alcohol from the body: ADH1B and ALDH2. If ALDH2 is inactive, the result is facial flushing, headache, and nausea, sometimes called the "Asian flush" because ALDH2 is more inactive in Asian populations than in other populations. These symptoms compose an endophenotype. ALDH2 doesn't directly protect one from becoming abusing alcohol, but it does make the consumption of alcohol so unpleasant that it's unlikely that one would continue drinking (Edenberg, 2007). There is one notable exception. Women with serious psychiatric disorders who have an inactive ALDH2 gene may start drinking at a younger age in order to cope with the psychiatric symptoms, a pattern not seen among men (Kimura, et al., 2011).

Kimura, M., Miyakawa, T., Matsushita, S., So, M., & Higuchi, S. (2011). Gender differences in the effects of ADH1B and ALDH2 polymorphisms on alcoholism. *Alcoholism: Clinical and Experimental Research, 35*(11), 1923–1927. doi: 10.1111/j.1530-0277.2011.01543.x.

Edenberg, H. J. (2007). The genetics of alcohol metabolism. *Alcohol Research & Health, 30*(1), 5–13.

McGue, M. (2010). The end of behavioral genetics? *Behavior Genetics,40*(3), 284–296. doi: 10.1007/s10519-010-9354-0.

Minnesota Center for Twin and Family Research. (2011, February 7). Minnesota Twin Family Study. Retrieved August 12, 2014, from mctfr.psych.umn.edu/twinstudy.

Temperament and Heredity

Classroom Exercise: EAS Temperament Survey

Extend a discussion of temperament with Handout 2, Buss and Plomin's EAS Temperament Survey. Buss and Plomin describe a temperament as a broad personality disposition rather than specific personality traits. How dispositions develop into traits depends on how those dispositions interact with the environment. A temperament is more a matter of *style* (how a response is made) than of *content* (which response is made).

The EAS Survey measures three temperaments: Activity, Emotionality, and Sociability. *Activity* represents a person's general level of energy output. Children who are high in this disposition do not sit still long and prefer games of action; high-scoring adults keep busy most of the time and prefer active to quiet pastimes. *Emotionality* refers to the intensity of emotional reactions. Children who are high in this disposition become frightened and angry very quickly; as adults, they easily become upset and display a "quick temper." *Sociability* relates to a person's tendency to affiliate and interact with others. Both children and adults who score high on this disposition seek out others and generally enjoy their company.

To score the survey, students should reverse the number they placed in front of items 6, 18, and 19 (5 = 1, 4 = 2, 3 = 3, 2 = 4, 1 = 5). Then, they should add the scores for items 2, 7, 10, and 17 for an Activity score, and the scores for 1, 6, 15, and 20 for a Sociability score. The Emotionality disposition consists of three parts: the total of 4, 9, 11, and 16 gives a Distress score; 3, 12, 14, and 19 give a Fearfulness score; and 5, 8, 13, and 18 give an Anger score. Buss and Plomin provide the mean scores for women and men shown here.

	Women	Men
Activity	13.40	12.80
Sociability	15.24	14.60
Emotionality		
Distress	10.08	9.72
Fearfulness	10.60	8.92
Anger	10.28	10.80

Buss and Plomin argue that temperaments are largely inherited. The evidence they present from several twin studies is persuasive. Identical twins show significantly more similar temperaments than do fraternal twins. The average correlations for Emotionality, Activity, and Sociability were .63, .62, and .53 for identical twins and .12, –.13, and –.03 for fraternal twins.

Buss and Plomin (1984) also created a version of the EAS for children to be completed by parents. That questionnaire has four dimensions: Activity, Sociability, Emotionality, and the added dimension of Shyness. This 20-item questionnaire has five items per subscale (as compared with four items per scale for the EAS for adults), each rated on a one-to-five Likert scale. In a U.K. study (Bould, et al., 2013), researchers had 7429 mothers complete the questionnaire when their child was 3 years old, 5 years old, and finally 6 years old. The results showed strong test-retest correlations.

	3 years		5 years		6 years	
	Boys	Girls	Boys	Girls	Boys	Girls
Activity	21.8	21.3	20.8	20.4	20.7	20.1
Sociability	18.0	18.4	18.0	18.3	18.1	18.4
Emotionality	12.1	12.8	12.5	13.0	12.4	12.9
Shyness	12.3	12.7	11.9	12.0	11.7	11.9

In a study of about 700 Norwegian women (Naerde, Roysamb, & Tambs, 2004), researchers asked participants to take the EAS Temperament Survey three times over a two-and-a-half-year period. The results, again, revealed strong test-retest correlations, providing evidence of temperament stability over time. Below are the mean scores.

	Time 1	1 year later	1.5 years later
Activity	12.0	12.4	12.6
Sociability	15.0	15.0	14.9
Emotionality			
Distress	9.4	9.3	9.3
Fearfulness	9.0	8.9	8.8
Anger	12.0	11.8	14.9

Buss and Plomin recognize that while heredity may point personality in a certain direction, the course of development is also influenced by the environment. Thus, while a highly emotional child is more likely than a less emotional one to become aggressive, parents who reward problem-solving skills over the overt expression of anger may shape the child into a cooperative, altruistic adult. Obviously, however, infants are not blank slates on which parents may "write their child's personality."

Bould, H., Joinson, C., Sterne, J., & Araya, R. (2013). The Emotionality Activity Sociability Temperament Survey: Factor analysis and temporal stability in a longitudinal cohort. *Personality and Individual Differences, 54*(5), 628–633. doi: 10.1016/j.paid.2012.11.010.

Burger, J. M. (2010). *Personality* (8th ed.). Belmont, CA: Thomson Wadsworth.

Buss, A. H., & Plomin, R. (1984). *Temperament: Early developing personality traits.* Hillsdale, NJ: Erlbaum.

Naerde, A., Roysamb, E., & Tambs, K. (2004). Temperament in adults - Reliability, stability, and factor structure of the EAS Temperament Survey. *Journal of Personality Assessment, 82*(1), 71–79. doi: 10.1207/s15327752jpa8201_12.

Heritability

Classroom Exercise: Explaining Heritability

Heritability is a difficult concept to grasp. Heritability is often misunderstood to mean how much of a trait comes from genes. Heritability is actually the amount of variance in a population accounted for by genetics.

Height provides a good example. The heritability of height is estimated to be between 60 percent and 80 percent; the remainder of the variance is explained by environmental factors, primarily childhood nutrition (Lai, 2006). If everyone in the population receives similar nutrition, then the differences in height will be more influenced by genetics; the heritability percentage will be higher. If there are big differences in childhood nutrition among members of the population, then the heritability percentage will be lower.

Visit this Wikipedia article for average heights for males and females by country: https://en.wikipedia.org/wiki/Template:Average_height_around_the_world. Use the heights for your country. If you have students who spent most of their childhoods in a different country, provide them with the average heights for their country of origin. Have your students calculate their height in centimeters or inches. Have each student determine how much their height differs from the national average for that student's gender. Next have each student multiply that difference by 0.8 (use 80 percent for the heritability of height). That's how much of their height is determined by genetics.

For example, the average height of 20- to 29-year-old males in the United States. is 70 inches; for females, it is 64 inches.

If a male student raised in the United States is 75 inches tall, the difference from the U.S. national average is 5 inches (75 minus 70). This is how much his height varies from the average. Multiply that 5 inches 0.8. That means that 4 inches of his height (eighty percent) was determined by his genetics.

If a female student raised in the United States is 58 inches tall, the difference from her national average is 6 inches (64 minus 58). Multiply that 6 inches by 0.8. That means that 4.8 inches of her height was determined by her genetics.

By doing this calculation and applying the concept of heritability to themselves, students should have a stronger understanding of heritability. Close this exercise by reiterating that heritability refers to the amount of variance in a population that is due to genetics. It is not the percentage of a trait accounted for by genetics.

Lai, C. (2006, December 11). How much of human height is genetic and how much is due to nutrition? Retrieved from www.scientificamerican.com/article/how-much-of-human-height.

Lecture/Discussion Topic: Genetic Influences on Psychological Traits

Thomas Bouchard provides a succinct survey of research findings on how much genes influence human psychological traits. You may want to present his summary in class. Bouchard notes, "There is now a large body of evidence that supports the conclusion that individual differences in most, if not all, reliably measured psychological traits, normal and abnormal, are substantially influenced by genetic factors." He then breaks down the findings for personality, intelligence, psychological interests, psychiatric illnesses, and social attitudes.

Of special interest is Bouchard's observation that the early behavior geneticists' assumption that some psychological traits were likely to be significantly influenced by genetic factors, whereas others were likely to be primarily influenced by shared environmental influences has proven wrong. Heritabilities differ less from trait to trait than anyone initially imagined. Most psychological traits are moderately heritable; this may be a general biological phenomenon rather than one specific to human psychological traits. More specifically, the profile of genetic and environmental influences on psychological traits is not that different from the profile of these influences on similarly complex physical traits. In addition, such findings apply to most organisms.

Presenting Bouchard's findings provides a good opportunity to extend the discussion of heritability. Heritability refers to the extent to which variation among individuals can be attributed to their differing genes. Thus, to say that the heritability of happiness is, say, 50 percent, does not mean that your happiness is 50 percent genetic. Rather, it means that we can attribute to genetic influence 50 percent of the observed variation in happiness among people. Following are Bouchard's findings by category.

Personality

Organizing traits into the Big Five (extraversion, agreeableness, conscientiousness, neuroticism, and openness) and the Big Three (positive emotionality, negative emotionality, and constraint), Bouchard reports that genetic influence is in the range of 40 to 50 percent and that heritability is approximately the same for different traits. Some large studies have examined whether the genes that influence personality traits differ in the sexes, and the answer seems to be *no*.

Mental Ability

Early in life, shared environmental factors are the dominant influence on IQ. Gradually, genetic influence increases. For example, Bouchard reports heritability of 22 percent at age 5. In old age (75+ years), it is 54 to 62 percent.

Psychological Interests

Little variation in heritability is reported for realistic, investigative, artistic, social, enterprising, and conventional interests. It averages 36 percent.

Psychiatric Illnesses

The most extensively studied psychological disorder is schizophrenia, and it shows a very high degree of genetic influence. Heritability is about 80 percent. Major depression is less heritable (about 40 percent). The heritability of anxiety disorders is from 20 to 40 percent, alcohol dependence is in the range of 50 to 60 percent, and antisocial personality disorder ranges from 41 to 46 percent.

Social Attitudes

Twin studies show only environmental influence on conservatism up to age 19; after this age, heritability increases, with one large study yielding heritabilities of 65 percent for men and 45 percent for women in adulthood. Religiousness is only slightly heritable (11 to 22 percent) in 16-year-olds; for adults, it is in the 30 to 45 percent range. Membership in a specific religious denomination is largely due to environmental factors.

Bouchard, T. J., Jr. (2004). Genetic influences on human psychological traits. *Current Directions in Psychological Science, 13,* 148–151.

Gene-Environment Interactions

Lecture/Discussion Topic: Gene-Environment Correlation

In class, you can elaborate on the text discussion of gene-environment interaction with Randy Larsen and David Buss' review of the literature on three types of "genotype-environment correlation."

Passive genotype correlation occurs when parents provide both genes and the environment to children, but the children have done nothing to elicit their parents' responses. For example, parents who are verbally articulate may pass on their genes to their children. Because the parents are highly verbal, they may also buy a lot of books. A significant correlation between children's verbal ability and the number of books in their home is passive in that the child has done nothing to affect the presence of books.

Reactive genotype-environment correlation occurs when parents respond differently to children, depending on each child's genotype and behavior. Some babies may love to be touched and cuddled; others are more aloof. Parents may start treating their children the same, but over time, because of the children's different responses, they cuddle one much more than the other. As a result, differences in the children's sociability grow.

Active genotype-environment correlation occurs when a person with certain genetic predispositions selects a particular environment. For example, high sensation-seekers may seek risky environments—for instance, skydiving, motorcycle jumping, even drug taking. Very intelligent individuals may read books, attend lectures, and engage others in vigorous debate. This active selection of environments has been called *niche picking,* and it vividly demonstrates how we are not merely passive recipients of our environments but that we mold and create them. They, in turn, mold us.

Larsen and Buss make the important point that genotype-environment correlations may be positive or negative. That is, environments can encourage or discourage the expression of a specific genetic predisposition. Parents of very active children may try to get them to calm down, while parents of more passive children may try to foster liveliness. People who are very outspoken may be positively reinforced by an approving audience, but they may also elicit a negative reaction from others who try to "bring them down to size."

Larsen, R. J., & Buss, D. M. (2008). *Personality psychology: Domains of knowledge about human nature* (3rd ed.). New York: McGraw-Hill.

Lecture/Discussion Topic: Epigenetic Video

The concept of epigenetics threw a monkey wrench into the nature–nurture debate, at least as it has been classically presented. It was no longer adequate to try to explain the origin of behavior, personality, cognitive traits, or other aspects of psychological experience by examining causal variables as "either-or" (for example, as either genetic makeup or experience). According to epigenetics, our experiences and our environment can change how our genes are expressed and the genetic code that we pass along to our offspring, which means that psychological phenomena must be considered the result of "nature plus nurture."

The NOVA ScienceNow organization maintains a website with excellent brief videos describing and demonstrating many important concepts relevant to the introductory psychology course. The website for the program on epigenetics (www.pbs.org/wgbh/nova/sciencenow/3411/02.html) presents information about what the epigenome is and how environmental factors (including experience) can shape the processes that affect the binding of molecules to our genes and how those genes are subsequently expressed in humans and other animals. The video on this topic is 13:02 minutes long; if you do not want to take the time to show it in class, you can have students watch it outside of class.

Lecture/Discussion Topic: Epigenetic Influences on Psychological Disorders

Research into the epigenetics of psychological disorders is a hot area of study (Toyokawa, et al., 2012). The heritability of disorders ranges from around 30 percent for posttraumatic stress disorder, major depressive disorder, and drug abuse, for example, to more than 80 percent for schizophrenia. As noted in the text, research with identical twins finds that if one twin is diagnosed with a psychological disorder, the other twin is at increased risk. But it's not a sure thing that both twins will develop the

disorder. That tells us that genes are playing a role, but they are not the whole story.

A likely scenario is that our DNA may give us a genetic predisposition to develop a particular disorder, but it is environmental factors, perhaps through an epigenetic mechanism, that determine whether the disorder will manifest itself. For example:

Schizophrenia. Populations that have experienced famine show increased rates of schizophrenia. Lack of nutrients such as methionine (in fish, dairy, meat) and folate (found in vegetables, fruit, nuts, grains, meat, fish, and many other foods) may affect the expression of genes important in determining neuronal growth and movement in the developing brain.

Major Depressive Disorder. In people and other animals, whose mothers experienced stress during pregnancy, particularly during the third trimester (for humans), the expression of a gene that regulates the stress reaction changed. As a result, they are more likely to develop major depressive disorder.

Posttraumatic Stress Disorder (PTSD). Being exposed to trauma does not automatically mean that a person will develop PTSD. PTSD often co-occurs with major depressive disorder. In fact, some of the same genes that have been identified as epigenetically influenced in major depressive disorder also appear to have been epigenetically influenced in PTSD.

These are just a few examples of how epigenetic research is being used to help us understand the development of psychological disorders. Adding these examples to your lecture on epigenetics may help students see how important this research is.

Toyokawa, S., Uddin, M., Koenen, K. C., & Galea, S. (2012). How does the social environment 'get into the mind'? Epigenetics at the intersection of social and psychiatric epidemiology. *Social Science & Medicine,74*(1), 67–74. doi: 10.1016/j.socscimed.2011.09.036.

Evolutionary Psychology: Understanding Human Nature

Lecture/Discussion Topic: Misunderstanding Evolutionary Theory and Psychology

David Buss addresses several common misunderstandings about evolutionary theory that you may want to discuss in class. The first important misconception is that evolution implies genetic determinism. This is the doctrine that only genes control behavior with virtually no room for environmental influence. To the contrary, argues Buss, evolutionary theory states that human behavior cannot occur without (1) evolved adaptations and (2) environmental influences that stimulate the development and activation of those adaptations. Buss uses the simple illustration of calluses. They cannot occur without both an evolved callus-producing adaptation and an environmental influence involving repeated rubbing of the skin.

A second common misconception is that evolutionary theory implies that behavior cannot be changed. To the contrary, knowledge of our evolved adaptations and the environmental influences that activate them give us enormous power to change, if that is our goal. For example, men have lower thresholds than women for inferring sexual intent from a woman's smile, and they can use this information to reduce the number of unwanted sexual advances they make toward women. This does not mean that behavioral change comes easily, but knowledge about our evolved psychology does give us more power to alter our behavior when change is desired.

A third misunderstanding is that evolutionary theory assumes that organisms can compute complex mathematical formulas. For example, some critics have argued that evolutionary psychology's claim that we are more likely to help a brother than a cousin implies that we have evolved sophisticated mathematical abilities. Buss maintains that describing a spider's web requires a pretty complex mathematical statement. However, no one would argue that a spider is a mathematician. Although the spider spins a complex web using various "rules of thumb," this does not mean that it performs mathematical computations to execute them. Similarly, although the adaptations involved in helping kin may be complex, and as scientists we may need mathematics to *describe* those adaptations, it does not mean that humans need to be sophisticated mathematicians to engage in the helping behavior.

Fourth, evolutionary psychology does not claim that the current collection of adaptive mechanisms that make up humans is in any way "optimally designed." Evolutionary time lags constitute one constraint on optimal design. The environment keeps changing but evolutionary change occurs slowly. Existing humans are better designed for earlier environments of which they are a product. The cost of adaptation is a second constraint on optimal design. For example, we might imagine natural selection building into humans such a severe fear of snakes that they never go outside. The fear would prevent snake bites but at a prohibitively high cost. Selection favors benefits that are greater than the costs relative to other possible designs.

Finally, evolutionary theory does not argue that organisms have as a goal, either consciously or unconsciously, the motivation to maximize gene reproduction. Buss states, "Differential goal replication caused by differences in design is the causal process responsible for creating fundamental human motivations. But the motives and goals we have as products of this evolu-

tionary process do not embody the process itself." The products of natural selection tend to be problem specific, for example, to avoid predators, stay warm, find a mate, have sex, and help kin. The product of evolution is not, and cannot be, the desire to maximize gene reproduction.

Buss, D. M. (2008). *Evolutionary psychology: The new science of the mind* (3rd ed.). Boston: Pearson.

Natural Selection and Adaptation

Classroom Exercise: Darwinian Grandparenting

David Buss notes that there is tremendous variability in the emotional closeness between grandparents and grandchildren. Although becoming a grandparent is typically a time of great joy and celebration, not all grandparents invest the same amount of time and resources in their grandchildren. Evolutionary psychologists are interested in this relationship because emotional closeness demands an investment of psychological resources if not time and money. Darwinian theory would see this emotional investment as, in the long run, fostering physical survival, and grandchildren represent the crucial vehicle by which genes survive and are passed into the future.

Before presenting the "Darwinian" analysis of grandparent investment, ask students to reflect on their own personal relationships with their grandparents. Have them rate their emotional closeness from 0 = cold or negative feelings to 100 = warm or positive feelings, to each biological grandparent (identifying them as mother's mother, mother's father, father's mother, and father's father). Of course, they cannot include ratings for grandparents who died before they were born or when they were very young. Then have each student use those ratings to rank-order, from 1 (closest) to 4 (most distant), each grandparent in terms of closeness.

Research indicates that participants typically indicate the most emotional closeness to their mother's mother and the least emotional closeness to their father's father. Mother's fathers are rated emotionally closer than are father's mothers. Similar rankings have been found for the amount of time spent with and the resources (gifts) received from individual grandparents.

How do evolutionary psychologists explain these findings? Grandparent investment is tied to genetic certainty. Unlike women, who are 100 percent certain of their maternity, men face the problem of paternity uncertainty. From a grandfather's perspective, there are two opportunities for genetic kinship to be severed: It is possible he is not the genetic father of his son or daughter, and the son may not be the father of the putative grandchildren. This double whammy makes the blood relationship between a grandfather and his son's children the most genetically uncertain of all grandparental relationships. Women whose daughters have children are at the other end of the certainty continuum; they are 100 percent certain that their genes are carried by their grandchildren. She is certain she is the mother of her daughter, and her daughter is certain of her genetic contribution to her children.

The interesting puzzle is why the mother's father tends to be ranked higher than the father's mother. For each, there is one opportunity for the genetic link to have been severed. How might this specific pattern be explained?

One answer is that if infidelity rates are higher in the younger than in the older generation, the relational uncertainty is greater for the father's mother, since the father would be in the younger generation. A competing explanation focuses on the presence or absence of other outlets for investing one's resources. If the paternal grandmother is also a maternal grandmother (that is, her daughters have children) she has a very secure alternative outlet for investing resources and so will invest less in her son's children. Simon Lahan and his colleagues found support for this hypothesis. Their results indicated that participants felt closer to the mother's father than to the father's mother only when alternative investment outlets for the father's mother were available.

To give students something to think about, conclude with this question: Who are likely to invest more in their nieces and nephews—maternal aunts and uncles or paternal aunts and uncles? And, more generally, who should invest more in their nieces and nephews—aunts or uncles? Research suggests that maternal aunts and uncles invest more than paternal aunts and uncles again, perhaps for the reason of paternal uncertainty. But why aunts more than uncles? Researchers suggest that these gender effects occur because uncles, as men, tend to invest surplus resources into additional mating opportunities, whereas aunts, as women, are less likely to do so. Additional matings have historically paid off more for men than for women. Ultimately, this would mean that women (aunts) have more resources left to invest in their nieces and nephews than do men (uncles).

Buss, D. M. (2004). *Evolutionary psychology: The new science of the mind* (2nd ed.). Boston: Pearson.

Laham, S. M., Gonsalkorale, K., & von Hippel, W. (2005). *Personality and Social Psychology Bulletin, 31,* 63–72.

PsychSim 6: Lonely Crowd

This module begins by simulating an experiment on the pain of social rejection. It then describes research on the evolutionary explanation for social isolation's negative impact on health and mortality rates.

An Evolutionary Explanation of Human Sexuality

PsychSim 6: Dating and Mating

This activity explores evolutionary psychology's explanation of gender differences in mate selection. The student examines his or her own preferences for an "ideal mate," then considers the perspective of evolutionary psychology on this important issue.

Classroom Exercise: Brief Sexual Attitudes Scale

The Brief Sexual Attitudes Scale (BHSAS) (Hendrick, et al., 2006), a shortened and updated version of the Hendrick Sexual Attitudes Scale (Hendrick & Hendrick, 1987), provides a good introduction to class discussion of sexual attitudes, and especially to gender differences in those attitudes (see the article referenced at the end of this article. It measures the following four dimensions of sexuality: permissiveness (casual sexuality; items 1–10), birth control (items 11–13), communion (idealistic sexuality; items 14–18), and instrumentality (utilitarian sexuality; items 19–23). The score for each dimension is the sum of the item ratings divided by the number of items in that scale. An overall scale score is not computed. The lower the score, the greater the belief in that sexual attitude.

Using the brief scale, Jennifer Petersen and Janet Hyde (2011) found gender differences in permissiveness and instrumentality. College men scored higher than college women in on both scales, although the difference in instrumentality was much higher. There were no gender differences on the other subscales.

For comparison, the authors conducted a third study. The means for the four scales were as follows:

	Men (n = 219)	Women (n = 299)
Permissiveness	3.31	4.37
Birth control	1.83	1.74
Communion	2.09	2.02
Instrumentality	3.38	3.53

Men's higher permissiveness scores, a gender difference that holds across studies, has been explained from an evolutionary perspective. Evolutionary theory argues that the best route to reproductive success for men is to impregnate as many women as possible. Sperm are cheap, so spread them widely. Conversely, evolutionary theory argues that the best route to reproductive success for women is to be selective. Choose a man carefully. Women produce many fewer eggs than men do sperm; eggs are expensive, use them wisely.

Petersen and Hyde note that even though there is a gender difference in permissiveness, that difference has decreased over time, even in the last 25 years. For example, researchers found a small gender difference in attitudes toward extramarital sex in 1993. That gender difference was greatly diminished in 2010. Survey data found that the largest difference was among adolescents. The smallest difference was among adults.

They further caution that while an evolutionary explanation is tempting for gender differences in permissive attitudes toward sex, they contend that the size of the gender difference argues against it.

Hendrik, S. & Hendrick, C. (1987). Multidimensionality of sexual attitudes. *The Journal of Sex Research, 23,* 502–526.

Hendrick, C., Hendrick, S. S., & Reich, D. A. (2006). *The brief sexual attitudes scale. Journal of Sex Research, 43*(1), 76–86.

Petersen, J. L., & Hyde, J. (2011). Gender differences in sexual attitudes and behaviors: A review of meta-analytic results and large datasets. *Journal of Sex Research, 48*(2/3), 149–165. doi:10.1080/00224499.2011.551851A ccording.

Lecture/Discussion Topic: Gender Differences in Sexuality

Letitia Anne Peplau (2003) provides a comprehensive survey of the research on differences in human sexuality. Her review identifies four important differences that you might share with your students. She notes that these differences are large in comparison to other male-female differences studied by psychologists.

First, men show greater sexual desire than do women on a variety of measures. Men think more about sex, report more frequent sex fantasies, and, across the life span, rate the strength of their sex drive higher than do their female age-mates. Men are more likely than women to masturbate, to begin masturbating at an earlier age, and they tend to do so more frequently. In homosexual couples, lesbians report having sex less often than gay men or heterosexuals. Women appear more willing than men to forgo sex or adhere to religious vows of celibacy.

A second consistent gender difference is that women tend to emphasize committed relationships as a context for sexuality more than men do. For example, when young adults are asked to define sexual desire, men are more likely than women to emphasize physical pleasure and sexual intercourse. Women are more likely to "romanticize" the sexual experience as reflected in one young woman's definition of sexual desire as "longing to be emotionally intimate and to express love for another person." Women's sexual fantasies are more likely than men's to involve a familiar partner and to include affection and commitment. Men's fantasies are more likely to involve strangers, multiple partners, and a focus on specific sex acts.

Third, aggression is more closely linked to sexuality for men than for women. For example, when asked

to describe their own sexuality, men's sexual self-concepts often include being powerful, experienced, domineering, and individualistic. There is no equivalent aggression dimension for women's sexual self-concepts. In heterosexual relationships, men are typically more assertive than women and take the lead in sexual interactions. Moreover, physically coercive sex is primarily a male activity.

Finally, in comparison to men's sexuality, women's sexuality shows greater plasticity. That is, women's sexual beliefs and behaviors are more easily shaped by cultural, social, and situational factors. For example, a postsecondary education is associated with more liberal sexual attitudes and behavior, but this effect is greater for women than for men. The university experience seems to have a greater effect on liberalizing women's attitudes than it has on liberalizing men's: Although the unversity experience doubles the likelihood that a man identifies as gay or bisexual, it is associated with a 900 percent increase in the percentage of women identifying as lesbian or bisexual. Moving to a new culture also has a greater effect on women's sexuality than on men's.

> Peplau, L. A. (2003). Human sexuality: How do men and women differ? *Current Directions in Psychological Science, 12,* 37–40.

Lecture/Discussion Topic: Evolutionary Theory and Gender Differences in Motivation

Roy Baumeister (2007) has explained how the different challenges related to reproductive behaviors may shape gender differences that extend beyond sexuality. He argues that the single most underappreciated fact about gender is that today's population is descended from twice as many women as men. DNA analysis indicates that throughout the entire history of the human race it is likely that 80 percent of women but only 40 percent of men reproduced. Everyone needs a father and a mother. However, women usually have only a few children; men, on the other hand, have often had quite a few children, in fact several dozen. Experts estimate Genghis Khan may have had more than a thousand! Clearly, this huge difference in reproductive success is likely to have produced some important motivational, if not personality, differences.

For example, women had little advantage to gain in building a ship and sailing off to explore unknown regions in the pursuit of greatness. They might have drowned, been killed by savages, or caught a disease. For women, the best thing to do was to go along with the crowd and avoid conflict. The odds were good that a man would come along, offer sex, and you would have babies. We are descended from women who were likable.

For men, the motivation was quite different. Going along with the crowd and playing it safe meant you were less likely to reproduce. It was necessary to pursue greatness—to take chances, to try new things, to be creative, and to explore new possibilities. Most of us, Baumeister continues, have descended from the type of men who set out on a risky voyage and managed to come back rich. Men who did this were able to pass on their genes. In short, we are descended from men who took risks (and were lucky).

Ambition, competitive striving, and perhaps even creativity mattered more to male than to female reproductive success. Nature may have designed women to *seek* to be lovable, whereas men were designed to seek (mostly unsuccessfully) greatness. Baumeister reaches the important conclusion that the major differences between the genders may be more about motivation than ability. Ultimately, this may explain the WAW (Women Are Wonderful) Effect, that is, the impression that women are more likable and lovable than men. Men may wish to be lovable and even manage to get women to love them (so the ability is there), but men had different priorities and other motivations. Similarly, for women, the ability to be risky, ambitious, and creative were all present, but being lovable was the key to attracting the best mate.

> Baumeister, R. F. (2007, August). *Is there anything good about men?* Paper presented at the 115th Annual Convention of the American Psychological Association, San Francisco, CA.

How Does Experience Influence Development?

Parents and Early Experiences

Lecture/Discussion Topic: Where Parents Matter

As the text notes, parents have little influence on the development of their offsprings' personality. However, they do have influence over their children's attitudes. Some examples:

Eating. As children move from baby food to a more adult diet, they learn from their parents what to eat and how much to eat (Anzman, et.al., 2010).

Sunscreen and Sun Exposure. In a study of children living on Danish farms, researchers found that the amount of sunscreen children used and the amount of their sun exposure correlated with their mothers' use of sunscreen and sun exposure (Bodekær Larse, et al., 2014).

Volunteer Work. In a study of volunteers in Spain, the greatest predictor of whether children or adolescents would do volunteer work—and if they did, how much time they spent volunteering—was whether, and how often, their parents volunteered (Garcia Mainar, et al., 2014).

Anzman, S. L., Rollins, B. Y., & Birch, L. L. (2010). Parental influence on children's early eating environments and obesity risk: implications for prevention. International *Journal of Obesity, 34*(7), 1116–1124. doi:10.1038/ijo.2010.43.

Bodekær Larse, M., Petersen, B., Alshede Philipsen, P., Young, A., Thieden, E., & Rulf, H. C. (2014). Sun exposure and protection behavior of Danish farm children: Parental influence on their Children [Abstract]. *Photochemistry and Photobiology.* doi: 10.1111/php.12280.

Garcia Mainar, I., Marcuello Servós, C., & Saz Gil, M. (2014). Analysis of volunteering among Spanish children and young people: Approximation to their determinants and parental influence.*Voluntas: International Journal of Voluntary and Nonprofit Organizations.* doi: 10.1007/s11266-014-9487-5.

Student Project: Student/Parent Similarities

Students will find it interesting and fun to learn about the similarities between themselves and their parents or a guardian. Using Handout 1, ask students to interview a parent or a guardian with whom they have spent a significant portion of their childhood. Students can either bring the completed handout to class to discuss, discuss it in the class online forum, or you can make this a writing project.

Questions students may address:

What similarities and differences did you find between yourself and your parent/guardian?

Did any similarities or differences surprise you? Why or why not?

Choose at least three similarities. Then, reflecting on your childhood, why do you think you and your parent/guardian may have those similarities?

Peer Influence

Lecture/Discussion Topic: Peer Influence

Open your discussion of peer influence by asking students to reflect on a typical school week some time during their adolescence. Did students spend more time interacting with friends, including time spent texting and time on social media, or more time interacting with parents? Most will report having spent more time with friends.

Given the amount of time spent with peers, it is not surprising the influence peers have over us.

Whitney Brechwald of Duke University and Mitchell Prinstein of the University of North Carolina at Chapel Hill (2011) provide a wonderful summary of the current research on peer influence. The major highlights from their summary:

- Peers are instrumental in socialization. We turn to our peers for normative information. If our friends are doing it, it must be what we should do. Some public information campaigns have made use of this by providing information about what is both desirable and what most people are doing. Robert Cialdini and colleagues (2003) at Arizona State University created a public service announcement in which many people were shown to be recycling, talking about the value of recycling, and even speaking disapprovingly of someone who didn't recycle. Recycling centers reported a 25 percent increase in recyclable received.
- We have many peer groups, and each may be influential in different ways. Early peer research assumed that all peers were created equal. The newest research is looking at siblings, romantic relationships, "best friend" relationships in the context of larger social groups, and "mass media" peers who appear in movies or TV shows. Ask students to name some of their peer groups—for example, peers from their place of worship, work, school, or sports teams.
- How do our peers influence us? Is it because we want to be approved by them (social learning theory)? Or because our peers represent the ideal we want to emulate (identity-based theories)? Most likely, it's not an either/or situation but instead, the answer is "it depends on the circumstances."
- What protects us from peer influence? While our peers can be powerful influencers, they are not the only factor determining whether we will engage in a particular behavior.
  a. Our own characteristics matter. For example, the more self-control we have, the less we will be influenced by peers.
  b. The status of our peer group matters. A peer group that has high status in the community wields greater influence.
  c. The relationship between ourselves and our peers matters. If we want to be closer to a particular peer or peer group than we are now, we are more likely to be influenced by that person or persons.
  d. The behavior matters. We have our limits. One study found that peers could influence others to engage in bullying, but not going one step beyond to physical fighting.
- Biology plays a role. For example, research has found that some people appear to be biologically predisposed to be influenced by peers. It is unclear, however, if this is a fixed trait or some-

thing that will change as part of a developmental process. The research is still very new.

Brechwald, W. A., & Prinstein, M. J. (2011). Beyond homophily: A decade of advances in understanding peer influence processes. *Journal of Research on Adolescence, 21*(1), 166–179. doi: 10.1111/j.1532-7795.2010.00721.x.

Cialdini, R. B. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science, 12*(4), 105-109. doi: 10.1111/1467-8721.01242.

Cultural Influences

Lecture/Discussion Topic: Understanding Cultural Differences in Relation to Individual Differences

Paul Rozin suggests five principles for understanding cultural differences in relation to the individual differences that have long been the focus of psychological study. You might begin or end your classroom discussion of culture with his analysis.

1. The differences between cultures *seem* bigger than the actual differences between individuals in these same cultures. There is often great variation within a culture even in those attitudes and behaviors that are specifically selected to highlight cultural differences. For example, when Hindu Indian and American college students were compared in their respect for the elderly and in making a variety of moral judgments, more than 25 percent of Americans gave a traditional response (showing respect for or submissiveness to the elderly) and more than 25 percent of Hindu Indians gave a modern response (they do not show respect for the elderly merely because of their age).
2. Behavioral differences between individuals from different cultures are likely to be larger than differences in their thoughts and feelings. It is easier, observes Rozin, to socialize behavior than mental events. It is often very hard to observe, reinforce, or punish internal states. Specific instruction using models, punishments, and rewards is typically aimed at behavior.
3. Cultures often foster *preferences* for certain thoughts, feelings, and actions. That is, they encourage their members to choose from among options that are naturally available to all humans. Thus, outsiders may not deeply "feel" important values of another culture, but they can fully understand them. For example, some Hindu Brahmin and American adults were asked to indicate which one of the following three terms did not belong with the other: anger, happiness, and shame. Americans chose happiness, while the Brahmins chose anger. For Americans, happiness is positive, while anger and shame are negative. For the Brahmins, anger is socially disruptive, while happiness and shame are socially constructive. However, when the alternative reasoning was explained, both groups of research participants immediately understood the other's choice. Valence is simply more salient to Americans, and social effect is more salient to the Brahmins.

   Rozin cites another example of this cultural difference with free associations to food items. In response to the word "chocolate," about 25 percent of American women reported fat, fatty, or fattening as one of their three words. No respondent from India did so. Rozin concludes that "fat" is simply a more salient aspect of chocolate for Americans, not that Indians are unaware of a relation between chocolate and fat.
4. Cultural differences are sometimes artifacts of the social or physical environment. In short, mental differences may be less substantial than situational differences in understanding cultural differences. For example, food portions (in food stores, restaurants, and cookbooks) are smaller in France than in the United States. This is probably a major factor in accounting for the French being thinner than Americans. In addition, the French environment encourages physical activity because of the convenient location of small food stores near most homes, the more salient bicycle alternative for transportation, and the high cost of gasoline. None of these influences on food intake or activity need to be directly represented in mental activity, although they surely promote the development of behavioral and mental habits over the long run.
5. In the contemporary world, differences between cultures will generally be larger in the older generation than in the younger. For example, in recent decades young adults from traditional cultures are likely to wear modern Western clothing, while their grandparents continue to wear traditional clothing. The widespread availability of television, social media, and other aspects of globalization have meant that younger people grow up more aware of alternative lifestyles. University students are more likely to be similar around the world than are their parents or grandparents.

Rozin, P. (2003). Five potential principles for understanding cultural differences in relation to individual differences. *Journal of Research in Personality, 37,* 273–283.

Variation Across Cultures

Lecture/Discussion Topic: The Geography of Time

Robert Levine's *A Geography of Time* provides a fascinating consideration of how cultures vary in their

pace of life. Using three measures—pedestrian walking speed over a distance of 60 feet, the time it took postal clerks to fulfill a standard request for stamps, and the accuracy of 15 randomly selected bank clocks in main downtown areas—Levine's research team calculated the pace of life in 31 countries throughout the world.

What were the key factors that predicted the tempo of a culture?

1. The number one determinant, Levine found, is economics. The healthier a country's economy, the faster its tempo. The fastest people were found in North American, Northern European, and Asian nations. The slowest were in less-developed countries, especially those in South and Central America and the Middle East.
2. A second important predictor, clearly linked to economics, is the degree of industrialization. The more developed the country, reports Levine, the less free time per day. He notes that one of the great ironies of modern times is that with all of our time-saving inventions, people have less time to themselves than ever before. Interestingly, poorer countries have more national holidays, on the average, than richer ones.
3. A third predictor is population size. Bigger cities have faster tempos. Levine notes numerous replications of this finding. In one of the earliest studies, researchers found that the average city child walked twice as fast through a supermarket as the town child did through a smaller grocery. The town children also spent triple the time interacting with clerks and other shoppers.
4. Climate is a fourth important predictor. Hotter places are slower. The slowest countries in the study were Mexico, Brazil, and Indonesia, all having tropical climates. Levine notes that these are the sorts of places that people from the fastest countries—Switzerland, Ireland, and Germany—look to for their winter vacations. Does heat wear one down or do warmer climates simply encourage taking time to enjoy life? Or do less costly belongings—fewer clothes, simpler houses—make life easier?
5. Finally, a culture's basic values predict tempo. Individualist cultures move faster than those that value collectivism. Collectivist cultures emphasize affiliation; individualist cultures emphasize achievement. The focus on achievement may lead to a "time-is-money" mindset. Where social relationships take precedence, there is a more relaxed attitude toward time.

Levine, R. V. (1997). *A geography of time: the temporal misadventures of a social psychologist.* New York: Basic Books.

Individualist and Collectivist Cultures

Classroom Exercise: English and Chinese Proverbs

A culture's proverbs can provide a wealth of information about the values of that culture. Handout 3 lists a number of proverbs from the United States, a heavily individualist culture and China, a heavily collectivist culture. Distribute to your students to discuss in pairs or small groups. Can they identify the 9 proverbs that come from a collectivist culture and the 5 that come from an individualist culture?

Answers:

1. Collectivist (China)
2. Individualist (United States)
3. Individualist (United States)
4. Collectivist (China)
5. Collectivist (China)
6. Individualist (United States)
7. Collectivist (China)
8. Collectivist (China)
9. Collectivist (China)
10. Individualist (United States)
11. Collectivist (China)
12. Collectivist (Nigeria)
13. Collectivist (China)
14. Individualist (United States)

Source: famous-proverbs.com

Classroom Exercise: Assessing Individualism/ Collectivism

You can introduce this important topic of cultural difference with Richard Brislin's "Who am I?" exercise. The instructions are straightforward.

"Please write 20 different statements in response to the simple question (addressed to yourself), Who am I? Begin each statement with I am . . . Respond as if you are giving answers to yourself, not to someone else. Write your answers in the order that they occur to you. Do not worry about importance or logic. Go fairly fast."

Students score their responses by doing a simple content analysis. They should examine each answer and score it as an "S" if it implies a "social" response (e.g., I am a son = family; I am a Catholic = religious group; I am a member of the XYZ Athletic Club = club). Those who have "S" scores in the 20+ percent range are considered to be "collectivists"—they are more likely to define themselves in terms of their social groups; those with "S" scores in the zero to 15 percent range are considered to be "individualists"—they define their identity mostly in terms of their personal attributes, not their social groups. If most of your students are American-born, the number of social attributions is likely to be low. They are much more likely than Japanese and

Chinese students to complete the sentence "I am . . ." with "I am sincere" or "I am confident" and much less likely to say, "I am a Keio student" or "I am the third son in my family." In fact, in using this exercise, Harry Triandis reports that the most common score (mode) of University of Illinois undergraduates is zero.

You might combine this scale with another exercise suggested by Harry Hui in which you simply ask students to free associate, first to the word "individualism," then to the word "collectivism." Hui notes that American students may quickly respond to the former with answers like "maturity," "independence," and "self-reliance," whereas they may struggle to come up with responses to the latter. In contrast, Chinese students may respond to "individualism" with terms such as "egoism," "selfishness," even "Nazism." On the other hand, "collectivism" may elicit responses such as "patriotism" and "altruism."

Breer, P., & Locke, E. (1965). *Task experience as a source of attitudes*. Homewood, IL: Dorsey.

Brislin, R. (1988). Increasing awareness of class, ethnicity, culture, and race by expanding on students' own experiences. In I. S. Cohen (Ed.), *The G. Stanley Hall lecture series* (Vol. 8, pp. 137–180). Washington, DC: American Psychological Association.

Dion, K., & Dion, K. (1991). Psychological individualism and romantic love. *Journal of Social Behavior and Personality, 6,* 17–33.

Lecture/Discussion Topic: Individualism Versus Collectivism Around the World

Daphna Oyserman and colleagues (2002) performed a meta-analysis of research that looked at 27 different scales that evaluated individualism and/or collectivism. Some researchers assume that individualism and collectivism are different ends of the same dimension. Others posit that collectivism and individualism are separate constructs.

Individualism is conceived as having seven domains: being independent, having one's own goals, being competitive, being unique, having private thoughts, knowing oneself, and communicating one's own wants/needs.

Collectivism is conceived as having eight domains: understanding one's self in relation to others, wanting to be part of a group, having duties as a group member, wanting members of the group to get along, seeking advice from others, perceiving one's self as changing with the context, seeing hierarchies as being important, and a desire to work in groups.

Interestingly, researchers disagree on what to do with family relationships. Is seeking advice from family members, for example, a collectivist trait or something else?

Much of the research comparing regions on individualism has been between the United States/Canada and other regions. Of the regions studied, the international locations scoring highest on individualism are, in alphabetical order, Australia, Canada, Germany, Indonesia, and the United States. The regions scoring lowest on individualism, in alphabetical order, are Hong Kong, India, Japan, Korea, China, Singapore, and Taiwan.

Much of the research on collectivism has been between the United States/Canada and East Asia. Of the regions studied, the international locations scoring highest on collectivism, in alphabetical order, are Brazil, Hong Kong, India, Indonesia, Israel, Mexico, Nigeria, China, and Taiwan. The regions scoring lowest on collectivism, in alphabetical order, are Australia, Canada, Germany, Japan, Korea, Poland, and the United States.

Encourage students to talk with fellow students who may be from a different part of the world. What observations do those students have about how the culture in which they grew up differs from or is similar to the culture where they now live in terms of collectivism and individualism? Students can report back in class, as part of a written assignment, or on a class discussion board.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*(1), 3–72. doi: 10.1037//0033-2909.128.1.3.

Culture and Child Raising

Classroom Exercise: Culture, Child Raising, and Sleeping Arrangements

We take culture for granted. Only when we move into another culture and are challenged do we become aware of its effect on our thinking and behavior. To foster your students' understanding of the unspoken rules of culture, pose the following problem to your students: A family consisting of a mother, father, two daughters ages 2 and 15, and two sons ages 6 and 9, have recently moved into an apartment with only two bedrooms. Where should each person sleep?

Students from Western cultures are likely to see this problem as unsolvable. They have learned that a husband and wife should sleep together without the children, that infants ought to sleep in separate cribs, and that a 15-year-old needs privacy.

In contrast, students from Asian or African cultures are likely to see two easy solutions: The father and his sons sleep in one bedroom and the mother and her daughters in the other. Alternatively, everyone sleeps in one bedroom, perhaps with mats on the floor, making the second bedroom a reading, studying, or computer room. In short, close quarters pose no problem for people from many cultures in which the company of others whether

awake or asleep is preferred. Richard Schweder and his colleagues write:

> If you are from a (Western) culture . . . however, you believe in the ritualized isolation of children during the night, the institution of "bedtime," and the protection of the privacy of the "sacred couple" upheld by a cultural norm mandating the exclusive co-sleeping of the husband and wife (p. 873).

Viewed negatively, Westerners might associate communal sleep with sexual abuse; on the other hand, Easterners might see isolated sleeping as child neglect. Clearly, every culture uses strategies that guide children to develop abilities, values, and expectations that are well-suited for their particular setting. Children who sleep with their parents are learning to depend on their parents for warmth and protection; children who sleep alone are learning to become independent.

> Schweder, R. A., Goodnow, J., Hatano, G., Levine, R. A., Markus, H., & Miller, P. (1998). The cultural psychology of development: One mind, many mentalities. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1: Theoretical models of human development* (5th ed., pp. 865–937). New York: Wiley.

Gender Development

Gender Similarities and Differences

Lecture/Discussion Topic: Gender Differences in Personality?

You can complement your coverage of gender differences by discussing research on gender differences in personality. Randy Larsen and David Buss provide an excellent summary, including findings from a massive study of personality in 50 different cultures. This topic also provides the opportunity to anticipate a discussion of the Big Five personality traits: conscientiousness, agreeableness, emotional stability, openness, and extraversion.

On the trait of agreeableness, research suggests a smal-to-medium gender difference, with women scoring higher than men. Women are both more trusting (for example, they view others as basically good) and tender-minded (for example, they sympathize with those who are disadvantaged). Differences in smiling may reflect women's greater agreeableness, although some investigators view smiling as more a sign of submissiveness than of agreeableness.

Extraversion reflects the characteristics of gregariousness, assertiveness, and activity level. Women score slightly higher on gregariousness, and men score slightly higher on activity level. The gender difference for assertiveness is larger, with men scoring moderately higher. Men do seem to place greater value on power, as shown in their high concern for social status and dominance over other people.

In the 50-culture study, emotional stability showed a significant gender difference, with women scoring moderately lower than men. Impulsiveness and anxiety are both aspects of this personality dimension. Men and women are virtually identical on impulsiveness, but women score higher on anxiety than men. Larsen and Buss note that emotional stability may be the most value-laden dimension of the five-factor model and suggest that the continuum of emotional stability-instability might just as easily have been labeled emotionally constricted–emotionally expressive.

The gender difference for conscientiousness was negligible, with women scoring only slightly higher on the aspect of order. No sex difference was found on openness to experience (the range of thoughts or concepts a person entertains).

> Larsen, R. J., & Buss, D. M. (2008). *Personality psychology: Domains of knowledge about human nature* (3rd ed.). Boston: McGraw-Hill.
>
> McCrae, R., & Terracciano, S. (2005). Personality profiles of cultures: Aggregate personality traits. *Journal of Personality and Social Psychology, 89*(3), 407–425.
>
> McCrae, R., Terracciano, S. (2005). Universal features of personality traits from the observer's perspective: Data from 50 cultures. *Journal of Personality and Social Psychology, 88,* 547–561.

Classroom Exercise: Gender Differences on a Motor-Skills Task

Jennifer Knight, Michelle Hebl, and Miriam Mendoza (2004) of Rice University provide a wonderful classroom exercise using toys to stimulate discussion of gender differences. You will need two Barbie dolls with clothes and six Transformer toys to conduct the activity.

Begin by recruiting six male and six female volunteers. Ask three of the men and three of the women to wait outside the classroom until they are called back in. Then have the remaining three men and women form two lines of same-sex teams to participate in a race. Give a Transformer toy to each student along with a picture of what the toy will look like after it is manipulated. The students are to perform the task in sequence such that the second member of the team cannot begin the task until the first member has successfully transformed his or her toy, and so on. The team to have all three members complete the task first wins. Time the two teams; encourage the class to cheer their favorites on. After both teams have completed the task, invite the remaining six volunteers back into class.

This time, each team receives a Barbie doll, which they are to dress as quickly as possible. Each person

on a team is responsible for one item of clothing (i.e., dress, jacket, or shoes). Again, the audience may applaud and support their favorite team.

The authors report that men were able to complete the stereotypical male Transformer task more quickly than women (123 seconds versus 200 seconds), whereas the women were able to successfully complete the stereotypical feminine Barbie task more quickly than men (a whopping 85 seconds versus 300 seconds).

Engaging your class in an open-ended discussion about the exercise will lead to a consideration of central issues in the literature on gender differences. You might begin by noting that performance on motor-skill tasks often depends on the type and gender stereotypicality of the task. Ask your students to generate hypotheses about why the gender differences on the task might occur.

Consistent with gender socialization theory, some students may note that the difference may be because in childhood boys and girls play different games and with different types of toys. Other students may suggest that women excel in tasks involving fine motor skills (for example, the Barbie task) because of smaller finger sizes. Similarly, men's stronger visual-spatial aptitude might translate into better performance with Transformer toys. Still others may argue that students may feel evaluation concern that is based on a negative stereotype (men on the Barbie task; women on the Transformer task). This concern may interfere with their performance. Finally, students may indicate that social desirability is a factor—for example, men may not have wanted to "succeed" on a female-type task, and women may not have wanted to "succeed" on a male-type task.

In anticipation of a discussion of gender roles and gender typing, you might ask your class why they automatically cheered for the team members who were of their own sex. Might such ingroup bias implicitly encourage greater division and stereotyping of men and women?

Knight, J. L., Hebl, M. R., Mendoza, M. (2004). Toy story: Illustrating gender differences in a motor skills task. *Teaching of Psychology, 31,* 101–103.

Lecture/Discussion Topic: Are Women More Social?

Roy Baumeister (2007) raises this question in a provocative APA invited address titled, "Is There Anything Good About Men?" In carefully reviewing the differences between men and women, Baumeister concludes that both sexes have a need to belong. However, men and women are social in different ways. Women excel in the sphere of intimate relationships. They may be more likely to cultivate close friendships. But being social may also refer to having large networks of shallower relationships, which is a male specialty. Baumeister notes that we should not automatically see men as second-class citizens, because a large network of shallow relationships may also be important. This is reflected in any list of large group activities. For example, compared with women, men are more likely to pursue and enjoy involvement in team sports, politics, large corporations, economic networks, and so on.

Baumeister also places research findings on apparent gender differences in aggression and helping in the context of these different ways of being social. He notes that women can be very aggressive in close relationships. If anything, they are more likely than men to perpetrate domestic violence against romantic partners with everything from a slap in the face to assault with a deadly weapon. On the other hand, women do not hit strangers. The likelihood that they will have a knife fight with another woman at the mall is extremely low. There is a much greater risk that men, in the broader network of relationships, will engage in such behavior.

Research also suggests that a similar pattern holds for gender differences in helping. Men are more likely to help strangers; in the context of the family, women are at least as helpful as men. In conclusion, Baumeister argues that women both help and aggress more in the intimate sphere of close relationships because it is the area of social life they care about most. In contrast, men are more helpful and aggressive in the broader network of shallower relationships because it is the area of social life in which they have the greatest investment.

Baumeister, R. F. (2007, August). *Is there anything good about men?* Paper presented at the 115th Annual Convention of the American Psychological Association, San Francisco, CA.

The Nature of Gender

Lecture/Discussion Topic: Atypical Sex Chromosome Patterns

A pair of XX sex chromosomes directs the development of a girl and a pair of XY sex chromosomes, a boy. What if there is a sex chromosome deficit or surplus? At least one X chromosome is essential for life. A single Y is never enough for development. The following represent atypical sex chromosome patterns.

Turner's syndrome: One out of every 2500 women has only one X chromosome (XO) and are often short because the missing X is the one that directs the growth of long bones. Growth hormone given in childhood can compensate for some of the height loss if desired. Some women with Turner's syndrome may have a webbed neck, eyelid folds, a receding chin, and a rather broad chest, although there is much variation in appearance. The X chromosome that people with Turner's syndrome are missing also directs the development of functioning ovaries, so the ovaries may stop functioning any time between early childhood and early adulthood.

If the ovaries stop functioning before adolescence, breasts and other secondary sex characteristics will not develop. Supplemental estrogen can replace this ovarian function if the woman so desires (National Institute of Child Health and Human Development, n.d.).

Kleinfelter syndrome (KS): One in 500 men have an additional X chromosome, that is, an XXY pattern. In rare cases, some cells may contain another X or two (XXXY or XXXXY) or an extra Y (XXYY). Many men with KS show no symptoms or such mild symptoms, they are never diagnosed.

The number of symptoms depends on how much testosterone is produced. The less testosterone, the more visible the symptoms. During adolescence, for example, KS boys who produce little testosterone will have less facial and body hair, reduced muscle tone, smaller testes, and low interest in sex. Breast growth is also possible. People with KS may have difficulty learning to process spoken and written language, as well as learning to use language to express themselves (National Institute of Child Health and Human Development, 2013).

The XYY syndrome: Approximately one out of every thousand men has an extra Y chromosome, thus an XYY pattern. Most XYY men show no noticeable physical differences from XY men other than perhaps being taller. Learning disabilities, including delays in developing written and/or spoken language, are more common among people who are XYY, as compared to people who are XY (National Library of Medicine, 2009).

National Institute of Child Health and Human Development. (n.d.). Clinical features of Turner Syndrome. Retrieved August 17, 2014, from turners.nichd.nih.gov/clinical.html.

National Institute of Child Health and Human Development. (2013, November 15). Klinefelter syndrome (KS): Overview. Retrieved August 17, 2014, from www.nichd.nih.gov/health/topics/klinefelter

National Library of Medicine. (2009, January). 47,XYY syndrome. Retrieved August 17, 2014, from ghr.nlm.nih.gov/condition/47xyy-syndrome.

Classroom Exercise: Writing About Puberty

The Development unit of these Resources includes an exercise that will get students to personalize what they have learned about the changes that occur during puberty.

The Nurture of Gender

Lecture/Discussion Topic: Who Does the Housework Around the World?

In mixed-gender couples, on the whole, women have historically done more housework than men worldwide. In recent history, women have been working more and more outside the home and doing less inside the home. Men have picked up some of the inside-the-home work but not enough to cover the difference. So, while the gap between how much women work in the home and how much men work in the home has narrowed in some countries, it is still a noticeable divide.

The Organisation for Economic Co-operation and Development (OECD) (2014) conducts time-use surveys in countries around the world. They use a category called "unpaid work" that includes routine housework, shopping, caring for household (both children and adults), caring for nonhousehold members, volunteering, travel related to household activities, and other unpaid work.

Ask your students to estimate how much time per week, in minutes, they spend on unpaid work as defined by the OECD. Collect their time estimates and gender. If you use a student response system, you can ask just women to click in their data, and then ask the men to click in. You may also consider collecting these data before class via, say, a Google Form. When you discuss this topic in class, you can discuss the country data below, and then reveal the averaged student data for men and women separately, along with the difference.

The seven countries with the greatest disparity between men and women with regard to how much time is spent on unpaid work (in minutes per week) are

	Number of minutes women exceeded men in unpaid work
Japan	273
Mexico	260
Turkey	260
Portugal	231
Italy	211
Korea	182
Ireland	166

The seven countries with the least disparity between men and women with regard to how much time is spent on unpaid work (in minutes per week) are

	Number of minutes women exceeded men in unpaid work
Norway	31
Sweden	52
Denmark	56
Finland	73
United States	87
France	89
Canada	93

For the full list of 27 countries, visit the website below.If you would like to parse the data further, you can download OECD's time-use survey data file.

> Organisation for Economic Co-operation and Development. (2014, July 3). Balancing paid work, unpaid work and leisure. Retrieved August 17, 2014, from www.oecd.org/gender/data/balancingpaidworkunpaidworkandleisure.htm,

Classroom Exercise: Learning Gender Roles

Handouts 4a and 4b are designed to help students understand how gender roles are acquired through the socialization process. For men, the items focus on how society has traditionally discouraged free emotional expression. For women, the items examine how society has sent mixed messages regarding achievement and the pursuit of a meaningful career.

Divide your class into two groups by sex and distribute Handout 4a to each man and 4b to each woman. Give students 10 minutes to complete the exercise before beginning small-group discussions. If students prefer anonymity, collect, shuffle, and redistribute the papers randomly among the group.

The following questions can be used to stimulate discussion in the male group. (You may prefer to type these out and give them to the group.)

> What messages do you remember picking up (from books, the media, teachers, peers or other adults) about men and their emotions?
>
> Do you think it's better to hide your emotions or "let them out"? Why?
>
> How comfortable do you feel about "nurturing" others (for example, diapering a baby, comforting a friend, holding a sick child's hand)?
>
> What does it mean to be a "strong man"? Is this different from being a "strong woman"? If so, how is it different?
>
> As a child, if you lived with your father, how did he express tenderness, love, fear, sadness, joy? How do you feel about the way he expressed it?
>
> What (if any) of the messages on the list might you give to your own son? Do you think you might give your daughter the same or different messages?
>
> What (if any) additional statements did members of your group add to the end of the list?

Use some of the following questions as discussion starters in the female group.

> What messages do you remember picking up (from books, the media, teachers, peers, or other adults) about women having careers?
>
> If you could change some of the messages you received as a child, which would you change, and what would you substitute for them?
>
> If you have chosen a career field, would you classify it as traditionally "feminine," traditionally "masculine," or neither? Why? How do you feel about classifying careers this way? Do you think there are any careers women should not have?
>
> If you lived with your mother, what kinds of career choices did she make? How do you feel about her choices?
>
> Which (if any) messages on the list might you give your own daughter? Do you think you would give your son the same or different messages?

If time allows, bring the class together again and give each student a copy of the list he or she did not see. Ask one person from each group to report on the conclusions reached during the discussion. Were there disagreements? Use some of the following questions to stimulate a full-group discussion.

> In an ideal world, what would men be like? What would women be like?
>
> (For women) In your relationships with men, do you prefer them to express their emotions fully or to be cautious about expressing emotion? Why?
>
> (For men) In your relationships with women, do you prefer that they plan to have careers or to be homemakers? Why?

Conclude the exercise with a statement such as the following: In traditional Western society men are seen as being fulfilled through their achievements, while women are fulfilled through friendships and family relationships. Therefore, we grow up with messages (some loud and clear, others more subtle) that convey this view. We may unquestioningly accept these messages; we may ignore them and hope they don't affect us; at some point, we may reject them entirely. It is important to be aware of our own responses to messages of this kind and to think about whether we want to continue giving the same messages to future generations. We hope that this exercise and discussion have stimulated your thinking about the past, the present, and the future.

Reflections on Nature and Nurture

Classroom Exercise: Biopsychosocial Influences

The text discusses the biopsychosocial approach to development. Biological influences, psychological influences, and social-cultural influences all play a role in making us who we are.

Ask students to generate a list of ways in which people differ. It could be as general as intelligence; a personality trait such as extraversion; an ability such as writing, math, or athletics; or a specific attitude, such as

comfort in speaking in front of a group. Alternatively, you can generate this list in advance based on the topics you will be covering in the course.

Divide students into pairs or small groups. Assign each set of students a different item from the list. If you are using a student-generated list, consider assigning topics that will be covered in the course.

Ask each student to generate three or more research questions from each arm of the biopsychosocial approach. Using intelligence, for example, students may ask questions like, "How do genes contribute to intelligence?" (biological influence), "How does a person's expectations influence the development of that person's intelligence?" (psychological influence), "Does being around more intelligent peers make a person more intelligent?" (social-cultural influence).

This activity will help students see the different lenses psychological scientists use in their research, the breadth of topics psychological scientists research, and how exciting it can be to find the answers to those questions.

HANDOUT 1

Similarities Questionnaire

	ALIKE	DIFFERENT		ALIKE	DIFFERENT
Politics			Cell phone (Android, iOS, other		
Music			Toothpaste brand		
Religion			Coffee brand		
Clothes			PC or Mac		
Jobs held			Favorite magazines		
Job goals			Any special or unusual talents or abilities		
Sports			Pets owned		
Hobbies			Family members (names, ages, interests)		
Favorite school subjects			Educational interests (major)		
Subjects you dislike			TV programs		
Favorite foods			Habits		
Foods you dislike			Personality traits		
Favorite colors			Vacation—activities, preferences		
Regional (climate) preferences			Social preferences (gregarious/reclusive)		
Automobile preferences			Marital status		
Sleeping habits			Handedness		
Reading tastes			Social media use (Facebook, Twitter, Instagram, etc.)		
Talents			Major illnesses (age of occurrence)		
Aversions (What bugs you?)			Sensitivity to drugs		
Chewing gum brand					

Source: Adapted with permission from a questionnaire by W. Joseph Wyatt.

HANDOUT 2

EAS Temperament Survey

To assess your own temperament, rate each of the items using the following scale.

1 = Not at all characteristic of me
2 = Somewhat uncharacteristic of me
3 = Neither characteristic nor uncharacteristic of me
4 = Somewhat characteristic of me
5 = Very characteristic of me

_____ 1. I like to be with people.
_____ 2. I usually seem to be in a hurry.
_____ 3. I am easily frightened.
_____ 4. I frequently get distressed.
_____ 5. When displeased, I let people know it right away.
_____ 6. I am something of a loner.
_____ 7. I like to keep busy all the time.
_____ 8. I am known as hot-blooded and quick-tempered.
_____ 9. I often feel frustrated.
_____ 10. My life is fast-paced.
_____ 11. Everyday events make me troubled and fretful.
_____ 12. I often feel insecure.
_____ 13. There are many things that annoy me.
_____ 14. When I get scared, I panic.
_____ 15. I prefer working with others rather than alone.
_____ 16. I get emotionally upset easily.
_____ 17. I often feel as if I'm bursting with energy.
_____ 18. It takes a lot to make me mad.
_____ 19. I have fewer fears than most people my age.
_____ 20. I find people more stimulating than anything else.

HANDOUT 3

Proverbs

Write C next to the proverbs you think come from a collectivist culture. Write I next to the proverbs you think come from an individualistic culture.

___ 1. If you want happiness for an hour; take a nap. If you want happiness for a day; go fishing. If you want happiness for a month; get married. If you want happiness for a year; inherit a fortune. If you want happiness for a lifetime; help someone else.

___ 2. If you can't take the heat, get out of the kitchen.

___ 3. The squeaking wheel gets the grease.

___ 4. Public before private and country before family.

___ 5. Crows everywhere are equally black.

___ 6. You can't steal second base with your foot on first.

___ 7. Do not want others to know what you have done? Better not have done it anyways.

___ 8. If a son is uneducated, his dad is to blame.

___ 9. Reshape one's foot to try to fit into a new shoe.

___ 10. The secret of life is not to do what you like, but to like what you do.

___ 11. Only when all contribute their firewood can they build up a strong fire.

___ 12. One does not love if one does not accept from others.

___ 13. The climber of ladders will descend [the ambitious person will be brought back down].

___ 14. The early bird catches the worm.

Source: famous-proverbs.com

HANDOUT 4a

Socialization of Gender Roles

Many scholars have observed that our society has traditionally socialized men and women differently. Think for a minute about your childhood: What did you learn about "men"? Below is a list of statements. You may have heard these exact phrases or something like them when you were young. The ideas may have come to you directly or indirectly from adults around you. Read the descriptions of the two columns. Then read each statement and mark "Y" for yes or "N" for no in Column A. Then write "Y" or "N" in Column B. If you recall hearing any other statements about men, add these to the end of the list and mark them accordingly. This is *not* a test; there are no right or wrong answers.

	Column A	Column B
Statement	I remember hearing something like this when I was a child.	I might say something like this to my own child.
1. "Big boys don't cry."		
2. "Stand up and prove how tough you are."		
3. "Boys don't play with dolls."		
4. "Fathers fight the battles of life so mothers can raise the children."		
5. "Boys who hug other boys are weird."		
6. "Keep a stiff upper lip."		
7. "Only the strong survive."		
8. "Don't act like a sissy."		
9. "You need to learn to take it like a man."		
10. "Nice guys finish last."		
11. "Learn to hide your fears."		
12. "A good man protects and provides for his family."		
13. "Never admit defeat."		
14. "Boys will be boys."		
15. _____		
16. _____		

HANDOUT 4b

Socialization of Gender Roles

Many scholars have observed that our society has traditionally socialized men and women differently. Think for a minute about your childhood: What did you learn about "women"? Below is a list of statements. You may have heard these exact phrases or something like them when you were young. The ideas may have come to you directly or indirectly from adults around you. Read the descriptions of the two columns. Then read each statement and mark "Y" for yes or "N" for no in Column A. Then write "Y" or "N" in Column B. If you recall hearing any other statements about women, add these to the end of the list and mark them accordingly. This is *not* a test; there are no right or wrong answers.

	Column A	Column B
Statement	I remember hearing something like this when I was a child.	I might say something like this to my own child.
1. "A woman's place is in the home."		
2. "Sugar and spice and everything nice— that's what little girls are made of."		
3. "You're a tomboy if you climb trees and play sports."		
4. "Someday you'll meet Prince Charming (or Mr. Right)."		
5. "Girls can't do math."		
6. "That's too big (or too dangerous) for you to handle."		
7. "You need to learn how to cook and clean so you can be a good wife."		
8. "Boys don't like smart girls."		
9. "Girls grow up to be mommies, nurses, and teachers."		
10. "Women are screechy shrews."		
11. "If you work too hard, you'll end up an old maid."		
12. "Women bosses are worse than men."		
13. "Nice girls know how to keep their mouths shut."		
14. "Girls are cry-babies."		
15. _____		
16. _____		