



## ■ Learning Objectives

*After reading this chapter you should know*

- The nature, definition, and types of positive deviance.
- The characteristics of positive deviants.
- Explanations of positive deviance.

Not all forms of deviance are bad. Some, although they may be surprising, provide examples of human altruism, bravery, and exceptional honesty. On Christmas Day in 2009, for example, two Safeway stores in Roseville, California, were mistakenly left unlocked and unattended (*Salt Lake City Headlines Examiner*, 2009). Because both stores are normally open for business 24 hours a day, arriving customers expected them to be open. Once customers arrived and gained entry to the stores, however, not a single employee could be found. At that point store video surveillance cameras began recording an unusual occurrence. Customers were recorded pushing shopping carts up and down the aisles and then leaving small piles of cash at the checkout registers to pay for the items they had taken. No looting occurred, and personal honesty became the rule for anyone who “shopped” at the store that day.

This story provides an example of positive deviance, but most of what we know about deviant behavior is derived from analyses

“Problems cannot be solved at the same level of awareness that created them.”

—Albert Einstein (posted at [www.therightside.demon.co.uk/quotes/einstein/ae5.htm](http://www.therightside.demon.co.uk/quotes/einstein/ae5.htm))

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“We can do no great things; only small things with great love.”

—Mother Teresa (posted at <http://home.comcast.net/~motherteresasite/quotes.html>)

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of its negative forms. Positive deviance, however, receives scant attention. Yet, positive deviance in the form of innovation, creativity, and acts of extreme altruism has the potential to energize the social media and cultural environment. To thrive, societies must foster positive deviance in the form of creative problem solving or risk decline and possible extinction.

## ■ Positive Deviance Defined

Typically, when we think about deviant behavior, visions of negative behaviors (e.g., crime and destruction, harm and disorder, aberrations and pathologies) come to mind. The deviant behavior of others evokes fear, disgust, and avoidance but rarely admiration and the desire to emulate it. We do not consciously try to socialize our children to harm others, to be mentally ill or self-destructive, to be addicted, or to be sexually perverse. Nor do we intentionally encourage others to engage in deviant behaviors. All in all, there seems little to recommend involvement in behaviors that are violations of commonly held social norms.

Positive deviance is often viewed as an oxymoron, a contradiction in terms (Best & Luckenbill, 1991; Goode, 1991; Sagarin, 1985). Yet some sociologists contend that the concept of positive deviance helps to clarify theorizing about the nature and consequences of deviant behavior (Ben-Yehuda, 1990). For our purposes, **positive deviance** refers to behaviors that exceed normative standards in a positive way—that is innovative, virtuous, or altruistic behaviors (Winslow, 1970).

Behaviors that are judged to contribute significantly to highly prized cultural values (e.g., patriotism, entrepreneurship, athletic prowess in the extreme) may be deviant in the sense of being abnormal or very unusual (Norland et al., 1976; Scarpitti & McFarlane, 1975). The discovery of the North Pole, the climbing of a previously unscaled mountain, or sailing across the Atlantic in an open boat are all positive acts of daring and accomplishment that may qualify as acts of positive deviance.

Five types of positive deviance have been identified: **altruism**, **charisma**, **innovation**, **supraconformity**, and **innate characteristics** (Heckert, 2000). Altruism refers to acts of self-sacrifice that are intended to benefit others without the expectation of extrinsic reward. Charisma is a characteristic of persons with extraordinary ability to inspire others to follow their lead. Charismatic leadership is premised on the intention of the leader to draw others to his or her teachings and example (e.g., Gandhi and Jesus Christ) and the desire of others to place their faith and trust in the charismatic leader. Charismatic leadership need not be posi-

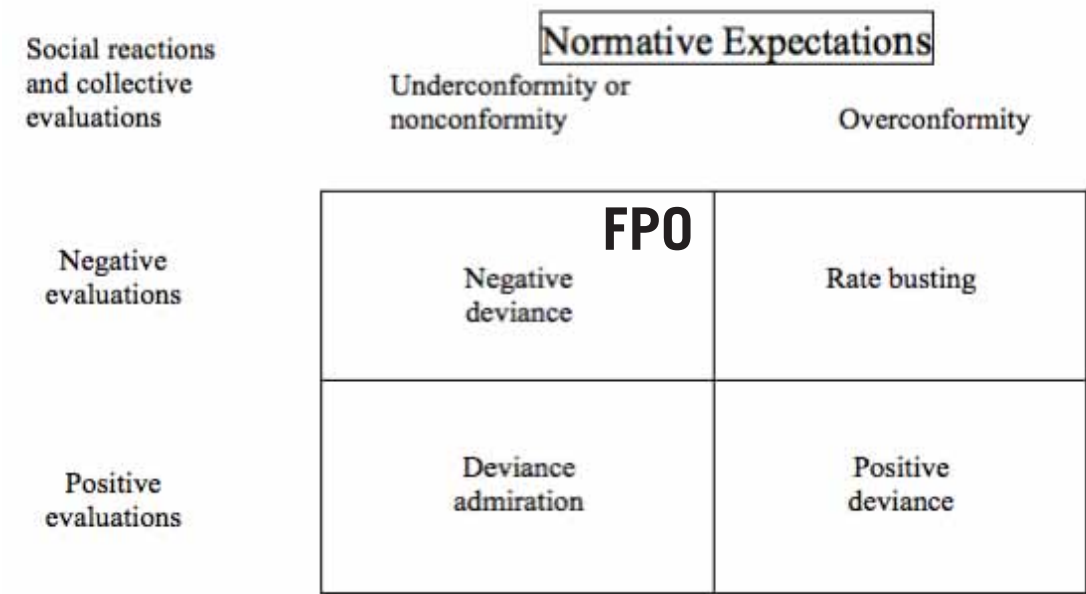
tive, of course, as in the case of Adolph Hitler or David Koresh of the Branch Davidian compound near Waco, Texas; Jim Jones, leader of the Jonestown mass suicide; or Marshall Applewhite, the leader of the Heaven's Gate movement and associated mass suicide in California.

Highly innovative persons also engage in positive deviance. Persons who are able to put existing things or ideas together in new and imaginative ways that have the potential to benefit others are rare in society. Scientific discoverers, literary and artistic masters, and inventors are examples of persons whose innovative abilities set them apart from the mainstream in a positive way. Supraconformity results from the adherence to certain societal norms to the extreme. Norms may function on two levels: (1) the ideal, which may be preferred but is exceedingly difficult to accomplish, and (2) the real—or something that is well within the ability of most people to achieve. The behavior of the supraconforming positive deviant complies in an ideal way with the requirements of particular social norms. For example, ideally we should be honest in our dealings with others and tell the truth. However, to always be honest and truthful may be harmful to others, as in the case when a person is asked his or her opinion about someone's new clothes or choice of boyfriend or girlfriend. A more realistic interpretation of the norm of honesty may be less deviant than its strict adherence.

Finally, although it does not refer to immediate forms of behavior, we should recognize the fact that persons who possess innate characteristics that are culturally valued, such as exceptional good looks, intelligence, athletic or musical ability, may be viewed as positive deviants. Certainly, there are subcultural variations as to what constitutes beauty or intelligence or useful talents. It may be, for example, that physical prowess or seductiveness, being streetwise, and having the ability to make a living from a variety of criminal enterprises are more positively valued by members of an oppositional subculture.

Heckert and Heckert (2002, 2004) advanced a “new” typology of deviance that includes both positive and negative forms of deviant behavior. Their typology integrates two perspectives on the definition of deviance: normative expectations and societal evaluations (**Figure 14–1**).

A normative approach to the definition of deviance defines negative forms of deviance as either nonconformity or underconformity or overconformity to expectations. Examples of nonconformity or underconformity to normative expectations include criminal activity or less conventional political views (e.g., White supremacists groups). Overconformity to normative expectations may be negatively evaluated if it is not realistically attainable by the average person. For example, “rate busters”



**FIGURE 14–1** Deviance typology.  
Alex Heckert and Druann Maria Heckert, Using an Integrated Typology of Deviance to Analyze Ten Common Norms of the U.S. Middle Class, *The Sociological Quarterly*, vol. 45, no. 2, p. 212.

are persons whose performance in school or on the job far exceeds what is possible for most people.

Deviance admiration involves underconformity or nonconformity that is positively evaluated, for example, a notorious person whose behavior is considered exemplary (e.g., Robin Hood or Bonnie and Clyde) and, although illegal, was praised by those who benefited from their transgressions. To Heckert and Heckert (2002, 2004) truly positive deviant behavior involves overconformity to normative expectations that are positively viewed by society at large. Extreme forms of altruism are examples of positive deviance. Mother Teresa is an apt example of a life dedicated to the “poorest of the poor,” as are those who risk their lives to rescue other in danger.

Heckert and Heckert (2004) advanced their understanding of positive deviance by integrating their typology of deviance with the Tittle and Paternoster (2000) schema of the normative system of the middle class. **Table 14–1** links the middle-class norms identified by Tittle and Paternoster with forms of positive deviance and provides examples of each form.

**TABLE 14–1 Classification of U.S. Middle-Class Deviance, Positive Deviance**

Norm	Positive Deviance	Examples
Group loyalty	Altruism	Kamikaze pilots; martyrs; sharing food or other resources; daring rescues (e.g., at sea, mountains); patriot
Privacy	Circumspection	CIA operatives; FBI/Justice Department agents; loyal company employees (e.g., Oliver North)
Prudence	Discretion	The good friend who practices discretion; a person who denies themselves pleasures to achieve a goal (e.g., Olympians & other athletes)
Conventionality	Properness	Junior League members; Martha Stewart's followers; Boy Scouts, Girl Scouts, and similar groups
Responsibility	Hyperresponsibility	Overachiever; straight-A student (as viewed by parents and teachers); workaholic (as viewed by management); overzealous athlete (e.g., Tiger Woods, Michael Jordan)
Participation	Cooperation	Athletic team where individual talents are deemphasized so the team can win; employees who are positively viewed as team players
Moderation	Temperance	Monks; nuns; Women's Temperance Movement; Mothers Against Drunk Driving
Honesty	Forthrightness	Honest Abe Lincoln; George Washington cutting down the cherry tree
Peacefulness	Pacifism	Gandhi; Martin Luther King Jr.; Jimmy Carter
Courtesy	Gentility	Miss Manners; the old-fashioned practitioners of southern hospitality who are admired; the gentleman; the "southern belle"

Source: Alex Heckert and Druann Maria Heckert, Using an Integrated Typology of Deviance to Analyze Ten Common Norms of the U.S. Middle Class, *The Sociological Quarterly*, vol. 45, no. 2, p. 221.

Altruism refers to an extreme form of loyalty to interests of a group. Religious martyrs or political figures who have made extraordinary sacrifices for their beliefs are examples of altruism. Circumspection is practiced by those in positions that require adherence to the norm of privacy, such as the confidentiality required by persons who have access to sensitive information (e.g., military personnel, doctors, lawyers, and clergy members). Discretion is practiced by those who forgo self-indulgence to achieve a high goal (e.g., students committed to their academic pursuits, athletes, and artists). Properness involves extreme participation in civic or voluntary activities.



Hyperresponsibility refers to an unwavering commitment to following through on all promises to complete a task. Cooperation underpins the value of team or group success versus individual honors. Temperance emphasizes the moderation of pleasure-seeking to further a high interest or more spiritual direction. Forthrightness recognizes that honesty is always preferred over a less truthful response to a situation. Pacifism is the preference for peace in all affairs—interpersonal as well as international. And, gentility is recognized as the practice of courtesy and an open, hospitable manner in dealing with others.

### Functions

Beyond its obvious contributions, positive deviance serves important social functions. First, the many forms of positive deviance provide for cultural change. Unless societies actively seek solutions to the problems posed by their physical and cultural environment, they will soon regress and face extinction.

Second, positive deviance ensures that cultural change proceeds in a beneficial way. Cultural change may be either adaptive or maladaptive. That is, it may generate solutions to societal problems or it may exacerbate those problems. By providing innovative and creative solutions to urgent as well as everyday problems, positive deviance enhances social well-being.

Third, widely recognized positive deviance provides a basis for defining other behaviors as less positive or negatively deviant. It is only when we define exceptionally positive behavior that we can define behaviors that are not in the interest of society, those that threaten the functioning of the society as a whole and the well-being of its individual members.

Fourth, the acclaim that society provides for its exemplary members encourages others to engage in positive deviance, which in turn increases the problem-solving ability of that society. In short, positive deviance serves the function of perpetuating itself (Heckert, 2000; Norland et al., 1976; Scarpitti & MacFarlane, 1975).

### Creative Process

Robert Sternberg and Todd Lubart (1995) argue that creativity is not innate but can be developed. They propose a process by which individuals can enhance their creativity:

1. *Redefine problems.* Don't accept what you've been told about how to think or act. This step involves the questioning of basic assumptions about the nature of a problem or the possibilities for its solution.
2. *Look for what others don't see.* Put things together in ways that others don't and think about how past experiences, even ones that may

initially seem irrelevant, can play a part in your creative endeavors. To be creative it is necessary to interpret environmental clues in ways that others have not. Creative people are not only able to see what others see but to perceive what could be there.

3. *Learn to distinguish your good from your poor ideas and pay attention to their potential contribution.* The ability to separate ideas that have a potential for making a meaningful scientific or artistic contribution from those that are trivial or marginally important significantly relates to the creative process. Time and energy is not wasted going down paths that lead nowhere.
4. *Don't feel that you have to know everything about the domain in which you work before you are able to make a creative contribution.* Often, innovative ideas come from persons who are not "the" expert in a given field but from a younger member of a research team or someone from another discipline who has recently changed a field of study.
5. *Cultivate a legislative, global style.* Creativity depends, in part, on the desire to explore alternatives to the ways things are traditionally done. The creative process is also enhanced by the ability to think on a global level, beyond the mundane problems faced locally.
6. *Persevere in the face of obstacles, take sensible risks, and be willing to grow.* Obstacles to the creative enterprise are inevitable, so too is failure. Creative persons are able to pursue their goal despite the obstacles that come along.
7. *Discover and tap into your intrinsic motivations.* Creative persons are far more apt to be driven by internal rather than external rewards. That is, involvement in the creative process is its own reward. The possible benefits granted by others are of less concern to a creative person.
8. *Find or create environments that reward you for what you like to do.* The working conditions of a creative person may either enhance or impede the creative process. When imaginative thinking is discouraged or penalized, innovation and creativity are most unusual.
9. *Resources needed for creativity are interactive, not additive.* Individual resources (e.g., intelligence, internal motivation, persistence, and so on) must be present for the creative process to be successful. In addition, an environment that is conducive to creativity is an important element in the process.
10. *Make a decision about a way of life that fosters creativity.* The willingness to redefine a problem or discard assumptions about its solvability is essential to creativity. Creativity involves a conscious decision to look at ideas and things differently.



### Discovery Processes

Robert Root-Bernstein (1999, p. 559) defines **discovery** as “the finding of something unexpected” and says that “discoveries change not only the extent of what is known but also how we think about it. Discoveries, in short cause us to rethink and restructure knowledge and the actions we derive from it.” To Robert Root-Bernstein (1999) discovery is not the consequence of a single act of inspiration but the result of a process—a series of interlinked steps: (1) the recognition of a problem, (2) the collection of relevant information, (3) the formulation of hypotheses to explain and predict outcomes, (4) the testing of hypotheses, and (5) the verification of the findings. Most often, the findings either do not support the hypotheses as stated or provide little or no support. Therefore, the hypotheses must be reformulated and the process begun again. In the event that the findings support the hypotheses, the next step is to convince the scientific community and larger society of the merits of the findings that in fact the findings are to be trusted and acted upon.

Root-Bernstein (1999) provides analyses of six key issues about the processes of discovery: who discovers, what is discovered, when discoveries are made, where discoveries are made, why discoveries are made, and how discoveries are made.

**WHO DISCOVERS.** Discoveries tend to be made by single persons rather than groups of researchers, “think-tanks,” or corporations. The distinguishing characteristics of persons who make significant discoveries are (1) mentoring by an accomplished scientist or scholar (e.g., Nobel Prize winner or highly innovative researcher), (2) intense involvement in creative hobbies or leisure pursuits (e.g., poetry, painting, music, sculpture), and (3) age (younger persons are more apt to make significant discoveries than are older researchers or scholars). The peak age for mathematicians is 25; for physicists, 30; for chemists, 35; and for biologists, the early 40s. Notable discoveries are made by two groups of researchers: those that make a single discovery only (e.g., Jonas Salk, the polio vaccine, and James Crick and Francis Watson, the structure of DNA [deoxyribonucleic acid]) and those who are extremely productive throughout their lifetimes (e.g., Thomas Edison, who was granted 1,093 patents, and Linus Pauling, who contributed significantly to our understanding of chemical bonding, protein structure, and the effects of vitamin C). Amateur scientists (e.g., Charles Darwin, Jane Goodall) also provide discoveries far greater than their academically trained peers.

**WHAT IS DISCOVERED.** We tend to believe what is discovered is a solution to a problem. Certainly, James Watson and Francis Crick worked on an existing problem—the structure of DNA—that stumped their fellow scientists.

### Albert Einstein

“With just a pen and paper, he peeked further behind Nature’s curtain than any one had since Newton—then spent the rest of his years living it down. Now when we think of genius we see his face.”

“Everything’s relative. Speed, mass, space, and time are all subjective. Nor are age, motion, or the wanderings of the planets measures that humans can agree on any more; they can be judged only by the whim of the observer. Light has weight. Space has curves. And coiled within a pound of matter, any matter, is the explosive power of 14 tons of TNT. We know all this . . . because of Albert Einstein.”

In 1905 Einstein, a 26-year-old Swiss patent clerk, submitted three papers to *Annalen der Physik*, a leading journal in physics. His three papers on theoretical physics, published in the same issue of the journal, immediately revolutionized the way physicists viewed the world—everything became relative. He refined his ideas over the next 11 years and in 1916 proposed his general theory of relativity, verified some 3 years later. To Einstein, “Light had mass, and space and time were simply space-time.” The profundity of his thought is sometimes lost in the simplicity of its expression.  $E = mc^2$  is widely known, but few understand the depth of the mystery it unravels.

Einstein won the 1922 Nobel Prize in Physics, and by 1935 he joined the faculty at Princeton University. His requirements were simply: “A desk, some pads and a pencil, and a large wastebasket—to hold all of my mistakes.” Einstein was to live out his life on the campus thinking about theories of quantum physics, helping children with their homework, and more than occasionally forgetting his address.

Source: “The Time 100: Albert Einstein,” *Time*, March 29, 1999. Retrieved November 1, 2010 from <http://205.188.238.109/time/time100/scientist/profile/einstein.html>

Their discovery was, in large part, made possible by the efforts of other geneticists and technicians who provided the groundwork and analytical equipment necessary to solve the problem. However, much of discovery involves the finding of a new problem or a redefinition of an existing one. Not posing the “right” question can never result in a significant discovery.

Discoverers then are able to perceive dimensions of an existing problem that others do not and thereby recast the research question that will lead to a previously unanticipated solution. Or, discoverers may pose a previously unrecognized question resulting in an equally surprising solution.

**WHEN DISCOVERIES ARE MADE.** Significant discoveries are usually made within the first 5 to 10 years of a scientist’s career. For the most part, an individual will make a single discovery but will be unable to make a second discovery without changing scientific fields. For most discoverers the creative process must begin again for any one person to arrive at a recognized

“breakthrough” in science. Changing one’s field of inquiry is one way to rejuvenate creative energy.

Curiously enough, only about a third of discoveries are the result of the dogged determination of the scientist. The image of the “mad scientist” working day and night until the problem is solved does not accurately reflect the process of discovery used by most acclaimed scientists. Rather, about a third of the time the scientific breakthroughs occur when the discoverer has stopped working on the problem and has focused attention on other questions. And, the final third of the discoveries are made when the scientist is not working at all but relaxing, playing, or even sleeping.

The prevailing social and cultural climate also influences the creative processes and prevalence of discoveries. Discoveries are more common during times of economic prosperity and the confluence of cultural and intellectual resources. Growing economies provide the assets and time necessary to engage in scientific inquiry. The coming together of culturally diverse perspectives and intellectual traditions extends the boundaries of scientific inquiry. By looking at problems from unfamiliar vantage points, the creative person is energized, the creative process is reshaped, and the chance of making a discovery is enhanced.

**WHERE DISCOVERIES ARE MADE.** To Thomas Kuhn (cited in Root-Bernstein, 1999), science may be divided into normal and revolutionary. Normal science is conducted within the parameters of carefully constructed theoretical formulations, well-defined conceptualized problems, and standard methods of empirical analysis. Normal science constitutes much of the work that is conducted in our major research universities and laboratories. Revolutionary science, however, seeks to redefine the problems that science is intended to address, questions the theoretical paradigms that guide “normal” scientific inquiry, and proposes alternative strategies for analysis. An additional form of science—“new science”—has been added to Kuhn’s typology. New science refers to the development of entirely new fields of study. For example, radiology, immunology, and genetic engineering emerged in the latter part of the 20th century.

Scientific discoveries tend to emanate from the nontraditional centers of research. Ironically, creativity is enhanced in settings that do not carry out large mainstream research projects that typically depend on federal funding. Rather, many important breakthroughs are made in less prestigious institutions where more innovative researchers are free to carry out “revolutionary” science. New science also emerges in institutional settings at the periphery of the mainstream scientific community.

- The United States has won 231 Nobel Prizes, outright or shared, including the most for Physiology or Medicine (74), Physics (62), Chemistry (43), Peace (18), and Economics (23). France has won the most for Literature, with 12.
- There are over 6 million patents in the United States alone and tens of millions in other countries. Almost 3 million U.S. patents have been issued since 1975.
- The Library of Congress is the largest library in the world, with nearly 119 million items on approximately 530 miles of bookshelves. The collections include some 18 million books, 2 million recordings, 12 million photographs, 4 million maps, and 53 million manuscripts. The Library receives some 22,000 items each working day and adds approximately 10,000 items to the collections daily. Most collections are received through the copyright registration process, as the Library is home to the U.S. Copyright Office.

Source: Guinness Book of Records, 1998. <http://www.britannica.com/eb/article?eu=60174>. Library of Congress <http://www.loc.gov/about>

**WHY DISCOVERIES ARE MADE.** Robert Root-Bernstein (1999, p. 567) notes that discoverers are motivated by “control, curiosity, necessity, serendipity, or aesthetics.” Creative people, for the most part, want to be in control of their lives, free to exercise their curiosity and pursue their own goals. Dreaded diseases, for example, polio or smallpox, have motivated scientists to discover vaccines to eradicate them. Serendipity—making a discovery when looking for something else—accounts for about half of all scientific breakthroughs. Surprising discoveries, although not rare in science, are nonetheless a consequence of a process of orderly inquiry. Finally, discoverers are often driven to search for the aesthetic in science or in the arts and literature.

**HOW DISCOVERIES ARE MADE.** Although simple “how to” recommendations for making a discovery are not realistic, certain strategies tend to increase its possibility. First, focus on fundamental questions within a field of inquiry. Incongruities between theories and observations, gaps in our basic knowledge about a given scientific field, or inconsistencies in research findings may point to the kinds of basic issues that lead to important discoveries.

The discoverers’ attention to basic issues within a field of inquiry is related to their willingness to repeatedly fail. Discovery often comes unexpectedly after a series of failures, mistakes in judgment and focus, or simply asking the wrong questions. Building on the errors of others and extrapolating from discoveries in related areas are also important strategies for making a significant discovery. An awareness and understanding of failures as well as the successes of others greatly enhance the creative process.

## ■ Characteristics of Positive Deviants

Robert Sternberg and Todd Lubart (1995) note six individual resources that are essential for creative activity: intelligence, knowledge, thinking styles, personality, motivation, and environmental context. Related to intelligence is the ability to be synthetic, analytic, and practical. Synthetic refers to the ability to view the problem or recast it in a wholly different way. This synthesis of information allows the person to view problems and challenges from a unique perspective. Analytic ability is key in making information understandable and in assessing the relative merits of the findings. Practical intelligence is the ability to present the idea or innovation to others in an understandable and appealing manner.

Knowledge refers to the awareness of the state of one's field of endeavor—what are the assumptions, the generally accepted information, and parameters for the advancement of the field? With this base of knowledge the creative person can begin to improvise alternative strategies for assessing key problems and their solutions. Thinking styles refers to the ways in which individuals use their intelligence and knowledge. Unconventional thinking styles—questioning the prevailing order and understandings—are characteristic of creative persons.

Typically, the total personality of the person is involved in the creative process. Much of the self is invested in the attempt to innovate or discover something new. “Durus epidermis”—a thick skin—is extremely helpful for creative persons to be able to withstand attempts to discredit them and the fruits of their innovative work. Motivation is intrinsic, highly charged, and persistent. Creative people are undaunted in their pursuit of their goal, undeterred by obstacles and personal affronts. Environmental context may foster the creative process or impede it. The expression of ideas and the desire to engage in exploratory projects may be either encouraged or condemned. Creativity in stifling environments is most unusual (Sternberg & Lubart, 1995).

In Kenneth Hardy's (1974) study of the social origins of U.S. scientists and scholars, he isolates seven basic values espoused by highly productive scientists and scholars that distinguish them from their unproductive peers: (1) naturalism, (2) intrinsic valuation of learning and knowledge, (3) dignity of man, (4) personal dedication, (5) egalitarianism, (6) antitraditional orientation, and (7) being centered on near future. **Table 14–2** provides a comparison of the basic values of productive and unproductive scientists and scholars.

As Table 14-2 shows, the worldview of highly productive scholars differs markedly from that of their less accomplished colleagues. Highly

**TABLE 14-2 Cultural Values Associated with High or Low Production of Scholars and Scientists**

High Productivity	Low Productivity
<i>Naturalism.</i> Belief in a world of order, law, pattern, meaning.	<i>World is unknowable, incomprehensible.</i> Events are capricious, mysterious, whimsical.
<i>Intrinsic valuation of learning, knowledge.</i> To be learned, wise, is highly valued. Broad conception of valued learning.	<i>Suspicion of learning, education.</i> Constricted view of valued learning. Anti-intellectual.
<i>Dignity of man.</i> Optimism concerning man's ability to discover truth, accomplish things, change the world	<i>Disparagement of man.</i> Man is powerless, at the mercy of fate, destiny, luck, chance. He is evil, incompetent.
<i>Personal dedication.</i> Seriousness of purpose, sense of mission, positive mysticism. Long-range striving. Responsibility beyond family.	<i>Sense of indirection.</i> Must take, enjoy what is available now. Loyalty to family, kin.
<i>Egalitarianism.</i> Active promotion of causes to improve status of disadvantaged. High status for women, children. Pacifism.	<i>Authoritarianism.</i> Reliance on authority. Power relations important. Patriarchal order; male dominance. Aggressiveness, militarism.
<i>Antitraditional orientation.</i> Not satisfied with established ways of doing things. Restless, inquiring spirit.	<i>Traditional.</i> Past is respected, romanticized. Filial piety valued.
<i>Being centered on near future.</i> Concerned with this world. Orientation toward the foreseeable future.	<i>Centered on present and distant future.</i> Hope for a better break in the distant future, the next life.
<i>Source:</i> Reprinted with permission from Hardy, K.R., <i>Science</i> 185: 497–506 (1974). Copyright 1974 AAAS.	

productive scholars tend to believe in naturalism—the view that the world is orderly and that empirical events form discernible patterns. This belief leads to an intrinsic valuation of learning and knowledge. Learning what is known and engaging in the discovery of what is not known stands among the most honorable of human pursuits. The value attached to learning and discovery is closely aligned with the belief in the dignity of man. The intrinsic worth of human beings prompts the desire to change things in the world that diminish the human condition. Highly productive scholars are driven by personal dedication to accomplish as much as possible in their lifetimes. Typically, other goals—leisure, material, power—are set aside to pursue their life's passion. It is by advancing our understanding of the world and the ways in which things work that a more just society can be realized. Egalitarianism—the value of providing all persons with the advantages gained by scientific advances—is highly valued among accomplished scholars. The willingness to disrupt the status quo, or antitraditionalism, is also commonly valued among elite scholars. They want to change the



world in which they live. Being centered on the near future rather than distancing themselves from their social environment ensures that the results of their labors benefit their world. Taken together, these values focus the attention of scientists and scholars on the natural order of the world, the intrinsic worth of human beings, and the significance of creativity in the pursuit of knowledge that benefits others in the here and now (Hardy, 1974).

### **Social Characteristics of Discoverers and Creative Persons**

Certain social characteristics set persons who make significant scientific discoveries or who are recognized for their creativity apart from others. Harriet Zuckerman's (1997) in-depth investigation of 93 Nobel laureates in science shows that much of the success experienced by the Nobel laureates is the result of the "accumulation of the advantage in science." Advantage in science "accumulates when certain individuals or groups repeatedly receive resources and rewards that enrich the recipients at an accelerating rate and conversely impoverish (relatively) the nonrecipients" (Zuckerman, 1997, pp. 59–60).

There are certain prerequisites for acquiring an "advantage in science." Zuckerman notes that the socioeconomic status of the person's family of origin, religious background, and prestige colleges and universities attended combine to provide social advantages that facilitate entrance into the community of scientific elites.

With regard to the Nobel laureates' families of origin, Zuckerman finds that 82% of their fathers are professionals, managers, or proprietors, compared with 11% in the U.S. population; persons from a Jewish background are disproportionately found among Nobel laureates. This is true for prizewinners from the United States and the world at large. That is, although Jews comprise about 3% of the U.S. population, they account for 27% of the U.S. Nobel prizewinners. This compares with 72% of U.S. Nobel laureates who come from 66% of the overall population with Protestant backgrounds, and 1% of the prizewinners are drawn from 25% of the Catholic families across the United States.

Worldwide, 19% of the 286 Nobel laureates in Zuckerman's study are awarded to Jews—a distinctly disproportionate number compared with their percentage of the general population across the globe. In other words, Jews are vastly overrepresented and Catholics greatly underrepresented. In addition, Zuckerman observes that one in four Nobel laureates graduated from one of five Ivy League institutions: Columbia, Harvard, Yale, Cornell, and Dartmouth. Berkeley, MIT, Cal Tech, the University of Chicago, and the University of Illinois account for an additional 24% of

the Nobel Prize winners. That is, Zuckerman finds that 10 U.S. colleges and universities produce about half of the Nobel laureates in science in the United States (Zuckerman, 1997).

The advantages of social origin set in motion two processes—self-selection and social selection—that facilitate the “accumulation of the advantage in science.” Self-selection refers to a process by which a student decides to seek admission to an elite university or college to study with a particularly eminent professor (preferably a Nobel laureate) in his or her chosen field. The desire to participate in the research of a Nobel prizewinner must be coupled with the willingness of the laureate to mentor the student. If the master-apprentice relationship is established, then the process of accumulating the advantages in science begins. Older Nobel laureates mentor over half of Nobel laureates in science from the United States. This mentoring relationship is even more common in Nobel laureates in Europe. This intense working relationship with an eminent scientist provides access to resources and the opportunity to become involved in an important and typically highly funded research project (Zuckerman, 1997).

Equally important, the student is socialized into the scientifically elite community. The Nobel prizewinners in Zuckerman’s study consistently report that the process of socialization into the scientific community is more important than the substantive information that their mentors pass on to them. The confidence they gain in their own abilities to creatively assess problems in science and to devise alternative approaches to their solution far surpass any technical knowledge gained from their mentors. Being effectively socialized into the scientific culture, being able to understand and accept the value of scientific inquiry with its uncompromising standards, and being able to immerse themselves in the scientific enterprise flow from being socialized by a member of the scientific elite (Zuckerman, 1997).

The advantage of being mentored by an eminent scientist significantly affects the student’s initial job placement. Almost all the Nobel laureates in Zuckerman’s study (93%) are university faculty members, and 7 in 10 begin their careers in an elite university, compared with 41% of their peers who are not mentored by as prominent scientists (Zuckerman, 1997).

## ■ Explanations of Positive Deviance

A number of explanations can be offered as to why positive deviance occurs (Table 14–3). The sections that follow explore four such explanations.

**TABLE 14–3** Explanations of Positive Deviance

Theories and Theorists	Sociological Predictors	Hypotheses
<i>Social Integration and Control</i>		
Durkheim	Social integration	The greater the social integration, the less the involvement in positive forms of deviance (e.g., innovation and creativity).
Merton	Anomie	The more anomic social life becomes, the greater the involvement in positive forms of deviance (e.g., innovation and creativity).
Hirschi	Attachment	The weaker the attachment to conventional society, the more likely positive forms of deviance (e.g., innovation and creativity) will occur.
	Commitment	The weaker the commitment to conventional society, the more likely positive forms of deviance (e.g., innovation and creativity) will occur.
	Involvement	The greater the involvement in conventional activities, the less likely positive forms of deviance (e.g., innovation and creativity) will occur.
	Belief	The stronger the belief in conventional values and norms, the less likely positive forms of deviance (e.g., innovation and creativity) will occur.
Agnew	Strain	The more strained social relationships become, the more likely positive forms of deviance (e.g., innovation and creativity) will occur.
<i>Societal Reaction</i>		
Becker	Societal reaction	The more affirmative the societal reaction to positive forms of deviance, the more likely those forms of behavior will continue.
<i>Social Conflict</i>		
Coser	Conflict	The greater the conflict in society, the greater the need for social change. The greater the need for social change, the greater the likelihood of positive deviance (e.g., innovation and creativity).
<i>Opportunity and Cultural Supports</i>		
Cloward and Ohlin	Opportunity	The greater the access to opportunities for positive forms of deviance, the more likely will innovation and creativity occur.

## Opportunity Theory

A disproportionate number of elite scientists and highly creative persons acquire considerable advantages from the status of their families and the opportunity to be educated in elite institutions. Families that socialize their children to value learning and encourage creativity and critical thinking immeasurably increase their potential for excellence.

Richard Cloward and Lloyd Ohlin's (1960) delinquent opportunity structure theory of negative deviance may be applied to innovative and creative forms of positive deviance. Opportunity structures (e.g., familial, educational, and associational) facilitate innovation and creativity.

### James Watson and Francis Crick

"On February 28, 1953, Francis Crick walked into the Eagle Pub in Cambridge, England, and, as James Watson later recalled, announced that 'we had found the secret of life.' Actually, they had. That morning, Watson and Crick had figured out the structure of deoxyribonucleic acid, DNA. And that structure—'a double helix' can 'unzip' to make copies of itself—confirming suspicions that DNA carries life's hereditary information."

This profound discovery was the result of Watson and Crick's unwillingness to accept many of the prevailing ideas of the scientific community. To the American Watson, "A goodly number of scientists are not only narrow-minded and dull but also just stupid." The precocious Watson graduated from the University of Chicago at the age of 19 and earned a doctorate 3 years later. Although 12 years older than Watson, Francis Crick, an Englishman, was less academically accomplished and far less driven to compete with his fellow scientists. Nonetheless, their harmonious working relationship allowed them to exchange ideas freely with one another and to maximize their unique strengths.

Other scientists, notably Rosalind Franklin and her colleague Maurice Wilkins, were also trying to discover the structure of DNA. However, friction between Franklin and Wilkins led to Wilkins' providing Watson and Crick with Franklin's best x-ray diffraction pictures of DNA. This information was key to Watson and Crick's ability to "crack the code" of DNA. Although the work of Franklin was instrumental to Watson and Crick's discovery, she received little public recognition. Four years after the death of Rosalind Franklin, the Nobel Prize was awarded to Watson, Crick, and Wilkins.

Writing about Watson and Crick's monumental scientific breakthrough, psychologist Robert Wright notes, "... one truth seems likely to endure, universal and immutable. It emerges with equal clarity whether you examine the DNA molecule or the way in which it was revealed. The secret of life is complementarity."

Source: "The Time 100: James Watson and Francis Crick," Time, March 29, 1999; <http://205.188.238.109/time/time100/scientist/profile/watsoncrick.html>

Opportunity structures include a selection and recruitment process, socialization strategies for instilling essential values and norms of conduct, and an organizational structure that provides for increased access to resources and opportunities.

As mentioned earlier, being educated in elite colleges and universities by eminent scientists and scholars significantly enhances the students' opportunities to excel later in life. Although it is possible to be innovative and creative apart from exceptional educational and socialization advantages, it is far less common. Many artists and writers, however, do develop their talents through personal experience, self-education, and dogged determination. They take advantage of informal opportunity structures (i.e., association with other artists and writers) that provide a testing ground for ideas and a source of encouragement and reward.

Both formal and informal opportunity structures enhance individual innovation and creativity. In a sense these opportunity structures serve to maximize the potential of individuals to deviate positively from their peers in science, literature, or the arts. Just as the opportunity to become a car thief does not guarantee a successful career, positive opportunity structures can only provide the conditions that are more apt to lead to high achievement.

### **Social Integration**

Innovation, creativity, and exceptional altruism are unusual under conditions of high social integration. When individuals are tightly bound into conventional society, when they accept without question the cultural scripts for living—what is important, what to do, and how to do it—there is little need or motivation to innovate, create, or deviate from what is considered “right.” Change is viewed as threatening to the social order; the individual who advocates change is either punished or ostracized.

However, under conditions of low integration—when values are less commonly held or individuals challenge the existing social and cultural order—innovation, creativity, and unconventional positive behaviors are more likely. Positive deviance is also more probable when anomic conditions are prevalent. When societies are undergoing rapid change, when the social order is threatened by economic turmoil or cultural upheaval, innovative and creative solutions to problems are more necessary and become more highly valued. When the stock market plummets or soars to unprecedented heights, when urban rioting and racial strife abound, when standards for sexual conduct or drug use are questioned, social creativity and innovation are more common.

To Robert Merton (1968), individuals resort to innovation when institutionalized means for achieving culturally approved goals are not available or are unworkable for them. When institutionalized means typically do not lead to culturally approved goals, when graduating from college does not result in a job with considerable opportunity for advancement, society is said to be in a state of anomie. Considerable stress and tension is experienced as members of society struggle to realize those goals particularly valued in their culture. Alternative strategies for achieving the goals of money, material goods, status, or power are sought. Innovative means are developed, tested, refined, and put into practice. As innovative strategies become more effective and are socially accepted, they may become institutionalized, and a new conventional order is created.

Similarly, Robert Agnew (1992) argues that when an individual's social interactions do not benefit him or her or when others block that person's attempts to gain certain goals, negative emotions, anger, rage, self-deprecation, and loss of self-esteem may follow. These negative emotions create considerable strain for the individual that must be alleviated. Often, attempts to lessen strain—"to blow off steam"—involve negative behaviors, verbal or physical aggression, or self-inflicted harm. However, strain may also trigger more creative ways to resolve the problem. The person is forced to alter the existing conflicted situation by developing new ways to deal with it or by exploring alternative ways to achieve desired goals.

High social integration tends to lessen creative and innovative thinking. Conventional ways of conducting everyday life are widely accepted and stringently defended. Travis Hirschi (1969) contends that when the bonds that tie an individual to society are very strong, that person is less likely to engage in negatively defined deviance. The greater the involvement in conventional society and acceptance of the prevailing value structure, the less the desire to deviate from deeply held norms and beliefs. Similarly, individuals who are tightly bound into conventional society are considerably less prone to engage in positive deviance, less likely to find the need for innovation and creativity. Why disrupt things that seem to be working just fine for them? There is little room for social or cultural change. Under conditions of tightly meshed values and behavior, innovation and creativity are deemed unnecessary, more often threatening to the social order, and subject to control and eradication. When positive forms of deviance are widely condemned, social stagnation ensues.



### Conflict

Conflict at both the micro and macro levels of sociological analysis is recognized as a source of cultural and interpersonal change. Where there is widespread discontent and violence, when urban areas erupt in riots, when citizens take to the streets to protest governmental policy or threatening social conditions, a signal for change is made publicly manifest. Likewise, when relations between two or more persons become so contentious they are no longer able to resolve their conflicts peacefully, when communication deteriorates into verbal abuse and accusation, when physical violence is either threatened or actually carried out, change is necessary to avoid irreversible destruction. Rolf Dahrendorf (1959) and Lewis Coser (1967) argue that social conflict does function to bring about cultural change. Conflict between social groups and between large segments of society and national and local governments generates strain on the existing social order.

Similarly, at the individual level, interpersonal relations marked by chronic conflict are stressful for all parties involved—wives and husbands, their children, and friends—and often threaten the health of the combatants and others near them, their relations with others outside the conflictual relationship (e.g., coworkers, neighbors, and so on), and their social and legal status in the community.

Unless conflict leads to change either at the societal or individual level that positively resolves the dispute, negative outcomes may well follow. Violence and destruction are common. Strife becomes institutionalized and is transmitted from one generation to the next, as in the case of Protestants and Catholics in Northern Ireland or the legendary Hatfields and McCoys. This cultural transmission of fundamental conflict between nations or social and cultural groups is acquired through the socialization process of children as they learn about their heritage and what is right and wrong, good and bad, prized and condemned and is mindlessly played out in everyday life.

Responses to conflict may be negative or positive. That is, conflict at the societal, group, or individual level may generate violent or other destructive outcomes, or it may spark innovation or creativity. Innovative ways of resolving complex sociopolitical conflicts may be devised. Technological or medical advances may result from the demand to protect oneself from harm at the hand of an enemy or outbreak of disease or other threats to physical or mental health. Such innovations may find widespread support and encouragement.

Alex Thio's (1978) power theory, although intended to account for negative deviance, may be applied to positive deviance as well. Thio argues that the powerless, those with few economic or political

advantages, do not have access to professional organizations, governmental agencies or representatives, or other influential groups. As a consequence, outlets for their innovative or creative ideas are limited. Departure from normative behavior, positive as well as negative, by the powerless tends to be discouraged. Deviations from acceptable modes for conduct may be viewed by the powerful as threatening and therefore negatively defined. To Thio, then, the powerless are more apt to engage in high-consensus deviant behavior. Innovations and creativity among the powerless tend to be ignored or deliberately blocked from public expression.

However, the powerful tend to be economically, politically, and socially in a position to have their creative or innovative ideas and products recognized positively. The powerful have the educational and professional opportunities to develop their potential for creativity. As we have seen, prominent scientific, literary, and artistic persons typically have access to social institutions (e.g., universities, “think tanks,” and professional organizations) that provide the facilities and financial resources necessary to carry out creative and innovative work. Perhaps more of the creative capital of the powerful concerns their contribution to economic gain. Product development and innovation, marketing and advertising, investment and management of financial resources are paramount concerns of corporations and smaller scale business enterprises. To survive in an expanding free market economy, businesses must continually be ahead of their competition. Innovation and creativity is highly valued, rewarded, and compensated, particularly in the United States.

### **Societal Reaction**

A central tenet of societal reaction or labeling formulations of deviant behavior is an individual's behavior will tend to be consistent with the reaction of others or the “label” that is attached to it. Becker (1963) notes that the deviant is one to whom the label has been successfully applied. By successful application, he means that the person has accepted the label in that he or she has defined himself or herself in the same way that others do.

The dynamics of societal reaction or labeling are the same whether they are applied to negative or positive behaviors. For example, if a child is defined by a schoolteacher as bright and creative, then that child is more likely to be inquisitive, to want to explore new things, to be confident in expressing ideas and perceptions. Societal reaction or labeling plays a large part in socializing persons to be innovative and creative. Montessori schools are intentionally designed to encourage discovery and creative expression in children. The rigid curricula of traditional

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schools are replaced by a flexible method of instruction that maximizes the student's control over the educational process.

However, institutional arrangements for the socialization of children (e.g., familial, day care, after-school programs) tend to value conforming behavior. The more compliant children are, the easier it is for their guardians to care for them, their teachers to teach them, and their neighbors to accept them. In time they fit well into organized work settings and carry out functions in an orderly and predictable manner. Their contribution is not to deviate, either negatively or positively, but to ritualistically perform those tasks that have been assigned to them. In a sense they hold society together, but they do not advance it. The innovators, whose ideas and actions deviate from mainstream thought, are permitted to engage in unconventional activities early in life, defined positively for doing so, and consistently rewarded for their efforts.

## ■ Chapter Summary

Positive deviance refers to those behaviors that exceed normative standards in a way that benefits society and its members. These behaviors include

- Innovation—the ability to put existing things or ideas together in a new or imaginative way that has the potential to benefit society
- Altruism—acts of self-sacrifice
- Charisma—extraordinary leadership
- Supraconformity—adherence to certain societal norms to the extreme

Intelligence, knowledge, thinking styles, personality, motivation, and environmental context are six individual resources essential for creative activity. In addition, naturalism, intrinsic valuation of learning and knowledge, dignity of man, personal dedication, egalitarianism, antitraditional orientation, and centeredness on the near future are seven basic values held by highly productive scientists and scholars.

Explanations of positive deviance include social integration theories, theories of societal reaction, social conflict theory, and opportunity theory. Each of these theories was discussed in this chapter.

## ■ Key Concepts

**Positive deviance:** Behaviors that exceed normative standards in a way that benefits society and its members; behaviors that are judged to contribute significantly to a highly prized cultural value.

**Altruism:** Acts of self-sacrifice that are intended to benefit others without the expectation of extrinsic reward.

**Charisma:** A characteristic of persons with an extraordinary ability to inspire others to follow their lead.

**Innovation:** The ability to put existing things or ideas together in new and imaginative ways that have the potential to benefit others.

**Supra-conformity:** Adherence to certain societal norms to the extreme.

**Innate characteristics:** Acquired characteristics such as exceptional good looks, intelligence, athletic, or musical ability.

**Discovery:** The finding of something unexpected.

## ■ Critical Thinking Questions

1. Imagine that you want to socialize a child to become a positive deviant. You may want her or him to become remarkably altruistic or to be a renowned writer, artist, or scientist. What would you consciously need to do to maximize the chances of your child's becoming a truly positive deviant? What would you do to minimize the likelihood of her or his becoming a positive deviant?
2. What sociocultural conditions must be present to ensure that a sufficient number of positive deviants—altruistic and creative persons—are generated to serve the interests of the larger society?
3. Can involvement in positive deviance be scientifically predicted? If so, what are the key macro- and micro-level variables that increase the likelihood of positively deviant behavior?
4. Consider a society in which positive deviance is not present. Altruism is unknown, innovation and creativity are shunned. How would you describe the everyday lives of members of this society, their emotional and psychological well-being, and the ways that they commonly interact with one another?

## Web Extra

Check out this website for additional information on positive deviance:

<http://www.positivedeviance.org>