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Using Analogy as an Expository Device

Analogy is a special form of comparison that you can use for a specific purpose to explain something abstract or difficult to understand by showing its similarity to something concrete or easy to understand. A much less commonly used technique than comparison (and contrast), analogy is, nonetheless, a highly efficient means of explaining some difficult concepts or of giving added force to the explanations.

When you use comparison as an explanatory strategy, you need to make sure both subjects belong to the same general class of things, and you assume that readers will be more or less equally interested in both subjects. This is not the case with analogy. In analogy, you and your readers are really concerned only with one of the subjects; the second serves just to help explain the first. The two subjects, which may have little in common, also do not belong to the same class of things. The few elements they do share, however, are what give analogy the power to explain—and even to speculate about how things might be.

Certainly, for example, the universe is nothing like raisin bread—or so any reasonable person would think. But an analogy between the two can help explain a very difficult concept, as the following paragraph illustrates.

> If distant galaxies are really receding from the earth, and if more distant galaxies are receding faster than nearby ones, a remarkable picture of the universe emerges. Imagine that the galaxies were raisins scattered through a rising lump of bread dough. As the dough expanded, the raisins would be carried farther and farther apart from each other. If you were standing on one of the raisins, how would things look? You wouldn't feel any motion yourself, of course, just as you don't feel the effects of the earth's motion around the sun, but you would notice that your nearest neighbor was moving away from you. This motion would be due to the fact that the dough between you and your nearest neighbor would be expanding, pushing the two of you apart.
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> —James Trefil, The Dark Side of the Universe

WHY USE ANALOGY?

In an analogy, you compare two things that are similar in some specifics but otherwise unlike. You can use this strategy to explain a complex, abstract, or unusual subject in familiar and easy-to-understand terms. Or you can use it to speculate about possible interpretations and consequences. For example, to explain how an electromagnetic field transmits radio signals from a station's transmitter to the radio in a listener's home or car, the physicist Richard Feynman asked his readers to imagine two corks floating in a pool of water. If we jiggle one cork, he pointed out, the waves in the water transmit the influence of our action and the second cork begins to jiggle, too. Like the water, an electromagnetic field transmits energy from sender to receiver in the form of waves—electromagnetic waves—conveying radio signals, a television picture, a radar image, or even plain light.

Analogy is not limited to scientific subjects, however. You can use it to explain and support your conclusions about other kinds of topics as well. For instance, a music critic, trying to explain her conclusion that jazz has influenced and will continue to influence modern music of all kinds, compares the jazz tradition to a tune that plays in the back of your mind all day, affecting your mood, the rhythm of your walk, and your tone of voice. Jazz, she explains, is a presence in the minds of composers and performers that shapes their choice of harmonies and rhythms, influences the tone of their compositions and the choice of instruments, and makes "hipness" (a mixture of sophistication, intensity, and emotional distancing) an attitude to which many of them aspire.

CHOOSING A STRATEGY

For a writer, the choice between using a brief analogy or an extended analogy is a significant one. A brief analogy, a sentence or two in length, can serve as an illustration or explanation of a difficult point or concept. To explain the need for a wide selection of college courses and the need for balance in a course of study, you might draw an analogy to a cafeteria, which serves desserts as well as meat, vegetables, and potatoes, allowing for various combinations adding up to balanced, full-course meals. If you wanted to extend this analogy to explain issues of curriculum and course choice in depth, however, you might run into problems with logic and with the adequacy of the particular analogy as an explanatory tool. Which courses, for example, should be classified as "desserts," and would all teachers and students agree on the classification? Does the concept of a well-balanced meal offer an adequate framework for understanding the specific kinds of balance appropriate for course choices?

An extended analogy, if carefully chosen for its logic and the points of comparison it offers, can serve as a framework for detailed explanation. In addition, it can offer a way to gain a fresh perspective on a problem, a controversy, or a puzzling phenomenon. For example, we often unconsciously draw on what we learn about relationships through family life in order to develop relationships within social organizations. Thus although businesses and other organizations are certainly different from families in many ways, there are still enough similarities to make an analogy worthwhile. Such an analogy asks readers to adopt a creative, "as if" perspective: let us examine the conflicts within an organization as if they were arguments among various members of a family to see whether the conflicts might be resolved in ways similar to those that work successfully in families. An analogy like this can be extended logically and consistently to explore a relatively broad topic, and it provides reasons for considering seriously the conclusions or interpretations the writer offers.

Analogies can take many different forms, and this flexibility is one of their appeals for both writers and readers. When you use an extended analogy to structure an essay, however, consider adopting a point-by-point arrangement to avoid confusing readers with too many comparisons at once. This is the approach taken in the following plan for an essay.

Tentative thesis: We can better understand corporations by viewing them as if they were large, extended families.

- Point 1: Employee ranks are similar to family roles (CEOs, board members = grandparents; VPs = parents; and so on).
- Point 2: Different parts of the company are similar to different parts of an extended family (main office = nuclear family; branch offices = families of uncles, aunts, cousins, and so forth).
- Point 3: Conflicts over resources within a company are similar to rivalry among cousins or struggles over a will.
- Point 4: Struggles over advancement within a company is similar to sibling rivalry.
- Point 5: Training programs aim to help employees work together for the good of the company while family therapy tries to help maintain healthy relationships that preserve the family.
- Point 6, 7, 8.... (if necessary)

DEVELOPING ANALOGIES

Simply stating an analogy and the specific grounds of similarity is seldom enough to make it an effective strategy, especially in the case of an extended analogy. The analogy needs to be clear to readers and developed in enough detail so that it provides convincing explanations and support for the writer's conclusions.

For an analogy to be effective, readers need to be familiar enough with the easier subject so that it really helps explain the more difficult one. Or the easier subject must be one that readers can understand with minimal discussion. An explanation of the human circulatory system, including the heart and arteries, in terms of a pump forcing water through the pipes of a plumbing system would be easily apprehended by readers. The analogy could be carried further to liken the effect of cholesterol deposits on the inner walls of the arteries to that of mineral deposits that accumulate inside water pipes and eventually close them entirely.

It is not enough for you as a writer simply to state an analogy, leaving for readers the job of understanding its significance. You need to explain both the analogy itself and its implications so that readers view it in the same way you do. To say that the world is like an overcrowded lifeboat will mean little in itself. You need also to explain that the lifeboat is in danger of sinking unless the number of passengers is reduced or the craft gains extra flotation power. And then you need to point out the implications: the world is overpopulated, and we must either limit population growth or increase our ability to sustain and feed people—without destroying the environment and, in effect, sinking the boat in which we are traveling.

Student Essay

People often use sports analogies to explain relationships and events in their lives. Kevin Nomura heard such analogies when he was growing up, especially comparisons between life and baseball. His essay draws on baseball for an extended analogy, but he uses it for a surprising purpose: to show how the analogy fails to explain much about life. Nonetheless, his essay makes effective use of analogy as a pattern and develops each element of the comparison in interesting, effective, and humorous detail.

Life Isn't Like Baseball

by Kevin Nomura

My father loves baseball. So does my mom. My sister was a star softball player in high school, and she is the regular shortstop on her college team. When my father tried to sign me up for Little League, however, I let him know that I would rather be playing soccer or tennis. It was about this time that he started trying to convince me that "life is like baseball." I wasn't convinced the first time he told me and I'm still not. Let me explain why.

Striking Out. People who think life is like baseball often talk about "striking out," "staying ahead on the count," or "taking a big swing." When you are up to bat in baseball, you get a lot of chances—not just three strikes but also four balls and any number of fouled-off pitches. I have made some serious mistakes at work, at school, and in my love life, but while I have been lucky enough to get an occasional second chance, I have never gotten any more. When I have failed at something, I have never failed as completely, as obviously, and as publicly as a baseball player does striking out. I suppose that getting booed off the stage is like striking out, but when I sang off-tune in my high school's production of Bye, Bye Birdie, no one yelled at me or called me back to the dugout (woops, dressing room). Instead my parents told me they were proud of me no matter what, and the director told me ways to get through my part of the song fast.

Hitting a Home Run. People seldom strike out in real life, and they do not hit home runs either. When baseball fans talk about "hitting a home run" at work or in some other activity, they mean accomplishing something dramatic whose success and importance no one can deny. Who has a job that is big enough or important enough to allow for a home run? Can the manager of a McDonald's hit a home run? Can a clerk in a department store or a steelworker do it? Who has a job that allows for dramatic and significant achievement? Can a teacher create brilliant students overnight or an artist become famous for one drawing rather than a lifetime of careful, patient effort? I don't think so, or only so seldom that such an achievement is unrealistic for us mortals.

Like a Spitball. People who believe that life is like baseball often ignore those parts of the game that don't fit very well with everyday experience or that are not very pleasant. Is life like a spitball? Are successful people the ones who load things up with petroleum jelly or scuff them with emery boards, then lie when confronted with evidence—and boast about their deception afterwards? And if some do, should we pretend their actions are good sport and hold them up as examples for the kids? Should we praise people for "stealing" and put the biggest thieves in the

record books? Should we treat every botched move—every balk—as a serious error and a public humiliation? Would you like it if a slight slip on your part automatically allowed your competitors to advance a base and maybe even bring home the winning run?

I realize that I probably haven't convinced any real baseball fans to stop seeing life in terms of their game. I also realize that people will go on talking about "taking a good cut" or "winding up too long before the pitch." My younger brother says he agrees with me, but then he thinks life is a slap shot.

JANISSE RAY was born in 1962 in the coastal plain of southern Georgia where she grew up and now lives on her farm. She received an M.F.A. in creative writing from the University of Montana. Her essays and poetry about nature and environment have appeared in newspapers and magazines, including Florida Wildlife, Orion, Wild Earth, Hope, Tallahassee Democrat, and Georgia Wildlife. A collection of her poetry, Naming the Unseen, won the 1996 Merriam-Frontier Award. Her book Ecology of a Cracker Childhood (1999) combines memories of growing up in rural southern Georgia with an ecological portrait and lament for the longleaf pine and wiregrass range that once covered much of the southeastern United States. The book won an American Book Award in 1999. In 2003, she published a memoir Wild Card Quilt: Taking a Chance on Home.

Built by Fire

In "Built by Fire," an essay from Ecology of a Cracker Childhood, Janisse Ray uses analogy to explain how longleaf pine forests came to depend on fire for their existence and growth. Her strategy is unusual but highly effective. Instead of providing a dry, detailed scientific explanation likely to interest and enlighten few readers, she presents the biological explanation in the form of a Native American creation story. Of course, Ray is not claiming that the biological process actually involved speaking characters like "lightning" and "pine," simply that the process is easier to grasp when treated as if it were a story. She extends this analogy (actually a metaphor because the two unlikes are worded as if they were the same thing) throughout the essay. Despite the "poetic" effect of the writing, however, her purpose is clearly expository.

A couple of million years ago a pine fell in love with a place that belonged to lightning. Flying past, a pine seed saw the open, flat land and grew covetous. The land was veined with runs of water—some bold, some fine as a reed. Seeing it unoccupied, the pine imperiously took root and started to grow there, in the coastal plains of the southern United States, and every day praised its luck. The place was broadly beautiful with clean and plentiful water sources, the sun always within reach. In the afternoons and evenings, thunderstorms lumbered across the land, lashing out rods of lightning that emptied the goatskin clouds; in those times the pine lay low.

The lightning announced itself lightly to the pine one summer evening, "I reign over this land," it said. "You must leave immediately."

"There was nothing here when I came," said the pine.

"I was here," said lightning. "I am always here. I am here more than any other place in the world." The clouds nodded, knowing that lightning spoke true.

In that short time, however, the pine had begun to love the place and called out, "Please. You live in the sky. Let me have the earth." The clouds glowered and began to thicken.

Lightning was extremely possessive and would not agree to divide.

"Then do what you will," said the pine. For years they warred. The lightning would fling as many as forty million bolts a year at the tree, striking when it could, the pine dodging and ducking. A single thunderstorm might raise thousands of bolts. Wind helped the tree, and although it was struck a few times, the damage was never serious.

After the tree had reached a fair age—old enough for government work, as they say—on the hottest of summer afternoons lightning crept close, hidden by towering maroon thunderheads, and aimed for the tree, sundering its bole crown to roots. When the lightning glanced the ground, such was its ferocity that it dug a trench wide enough to bury a horse before its force subsided. Needles from the pine had fallen about, like a woman's long brown hairs, and they began to smoke and then to flame, and from them fire spread outward, burning easy and slow.

In its dying, the pine sprang forth a mast of cones filled with seeds. The wind played with the seeds and scattered them for miles. And because the mineral soil was laid bare by fire, they could germinate.

But lightning was not worried. Kindling the whole place didn't take much effort. Once lightning struck, the fire might burn slowly through the grasses for weeks, miles at a time, arrested only by rivers, lakes, creeks, and ponds. So if the seeds began to grow, lightning would burn them.

Over the decades the fury and constancy of lightning knew no end—every few years it would burn the place again—and the greenhorn pines learned to lay low, sometimes for five or six years, drilling a taproot farther and farther into the moist earth, surviving the fast-burning, low-intensity fires of lightning's wrath by huddling, covering their terminal buds with a tuft of long needles. Sometimes the buds steamed and crackled inside their bonnets.

Young trees that mimicked grass survived fire. That low, they didn't look like trees.

The grass-trees began to learn that if they waited until the lightning went to sleep in the rainy springs and suddenly cast themselves upward, to the height of a yard or more in one season, drawing nutrient reserves from their long, patient roots, and if they hurriedly thickened the bark of their trunks, a lamination, then when the fires came again they could withstand the heat and their terminal bud would be out of flame's reach.

Only then would the trees dare to branch.

Lightning was nonplussed. No matter what it did, the trees flourished and multiplied. Admiring the courage of the longleaf pine, other trees, hardwoods—sweet gum and sumac and oak—tried to settle. Always, not knowing the secret history of longleaf's adaptation, they burned.

And then lightning realized the pine tree was plugging its needles with volatile resins and oils, rendering them highly flammable. The tree, of course, only thought to make the fires burn rapidly so danger would pass quickly. Flammability was important in driving wildfire through the forest, in order to leave older trees unharmed. The longleaf grew taller, spread farther.

The lightning saw volatility as an act of remuneration.

Longleaf and lightning began to depend on each other and other plants—the ground cover grasses and forbs, or flowering herbs—evolved to survive and welcome fire as well. Wiregrass, for instance, would not reproduce sexually in lightning's absence. The animals learned to expect fire and to adapt. They scrambled off or took cover: down into tortoise burrows, up into tree crowns. During a fire, exotic insects never otherwise seen would scurry from the plates of bark, scooting up the tree. Snakes and tortoises would dash for their holes.

Longleaf became known as the pine that fire built.

MEANINGS AND VALUES

1. Would it be accurate to say that this essay answers a question like, "If fire destroys forests, how can it be necessary to the building and survival of longleaf pine forests?" Why, or why not?
2. What evidence is there in the essay that its purpose is expository? (See "Guide to Terms": Purpose.) Are there any additional reasons, other than evidence directly in the essay, that readers might use to decide that the purpose is expository? If so, what are they?
3. State in your own words the meaning of the title, "Built by Fire." Where in the essay does the writer address most directly the reasons that "Longleaf became known as the pine that fire built" (Par. 18)?

EXPOSITORY TECHNIQUES

1. To what extent is personification an important part of the analogy around which this essay is built? (Guide: Figures of Speech.) Explain its use in the essay.
2. Which paragraphs in the essay are devoted primarily or heavily to scientific explanation? Which are devoted primarily to advancing the story and presenting its characters?
3. Why do you think the author chose not to announce the analogy (or metaphor) that structures the essay directly to readers? Is the essay more or less effective because of the absence of such an announcement? Defend your answer with evidence from the essay. (Guide: Evaluation.)

DICTION AND VOCABULARY

1. Which paragraphs in the essay employ scientific terms and more or less objective description? Which are more subjective in approach and tone? (Guide: Diction; Objective/Subjective; Style/Tone.)

2. What level of vocabulary does Ray use for this essay? Is it appropriate for the subject? Would you classify the writing as formal or informal? Explain.
3. Identify the simile in Paragraph 7 and discuss its contribution to the explanation. (Guide: Figures of Speech.)
4. If you do not know the meaning of some of the following words, look them up in a dictionary: covetous (Par. 1); glowered (4); sundering, bole (7); germinate (8); terminal (10); lamination (12); resins (15); volatility (16).

READ TO WRITE

1. Collaborating: Ray uses a myth or story to explain a complicated phenomenon. Working in groups of three, list the natural, ecological, scientific, or technical subjects that you think could be explained through a story or myth. You need not list only subjects that might take up an entire essay; you might choose a few that could be explained in several paragraphs. Discuss your list with the other groups. Are there similarities in the things or events that you have chosen? What kinds of subjects seem to lend themselves to this kind of explanation? Each group member should then write a short analysis explaining the kinds of subjects that are appropriate for extended analogies (and metaphors).
2. Considering Audience: What emotions does this essay evoke from the reader? What attitudes toward the natural world and preservation of species and habitat does the writer want to encourage through such emotional reactions? Are all readers likely to have similar reactions? Why, or why not? Which groups or individuals might respond in different ways, and how might they respond? Rewrite Ray's essay in your own language and style, but direct it at an audience unlikely (at least initially) to share her feelings about the extraordinary and valuable nature of the longleaf pine and wiregrass environment. Make any changes you consider necessary in content, structure, emphasis, and style, but retain the scientific information Ray presents.
3. Developing an Essay: Love for specific natural settings and the creatures who live in them often connects people who have otherwise very little in common. Write a short essay about the roles parks, wilderness experience programs, nature and environment tours, or educational programs can play in connecting people or in altering their values.

(NOTE: Suggestions for topics requiring development by use of ANALOGY are on pp. 248–249 at the end of this chapter.)

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Like Robinson Crusoe

This essay first appeared in Prime Times: Writers on Their Favorite TV Shows (1994). In it, Lan Samantha Chang introduces a variety of related analogies, many built around the television show Gilligan's Island, to explain her family's experiences as immigrants from China and to explore her feelings and her search for a "place" in which she belongs.

Desolate, my mother said. It was her first impression of the town where she would live for more than forty years. She took one step onto a pavement sheathed in ice and raised her eyes to view the narrow layer of snow-rimmed cars and houses, the edge of human evidence against the stark white sky. No people could be seen; they had stayed in against the cold. Only my father was there to welcome her. He had come weeks before, to begin his job, and now he brought my mother and sisters into the house that he had rented. It was February 1964, and my family began its life in Appleton, Wisconsin.

I have lived in seven states, on both coasts and in between, but in some vivid recess of my mind, I still believe I am a child in Appleton, sitting at the kitchen table with my mother. It is a quiet winter day. My sisters are at school and my mother is cleaning, sorting, and chopping vegetables to make the Chinese meals my father cannot do without. The outsized Midwestern green peppers are transformed to neat, bite-sized pieces in her hands. As she works, my mother describes the places she has lived. She was born in Shanghai, but her family moved two dozen times while seeking safety from the Japanese invasion and the civil war that followed. So she speaks about Chongqing, the wartime capital, sweltering in the summer heat, and she describes the constant threat of Japanese bombers. She recalls the perfect year in Hong Kong, surrounded by palm trees and the ocean's reassuring blue. Later, she lived in Shanghai on the eve of the Nationalist collapse, a time of galloping inflation, of avenues clogged with refugees on foot and bicycle and in automobiles, terrifying days light-softened in spring sun, her last glimpse of mainland China before the Communists moved into the city, driving her and my father and thousands of others to an island in the sea.

Chongqing, Shanghai. Beijing, where my father was born. These were only names to me, but they were vivid, living cities in my parents' recollections; they were the true and real world, the world left behind. My parents fled Shanghai expecting to return, but in the months after the Communist victory, the bamboo curtain tightened. Gunboats patrolled the waters. Travel ceased. Mail halted, save a trickle of letters through Hong Kong. My mother and father heard nothing from the people they had left, and the move to Appleton detached them from all family. I was born into a house of people living in exile, a tiny island of Chinese memories and customs, surrounded by vast shimmering fields of alfalfa, corn, and soybeans, by the fertile smell of dairy cows that drifted to our neighborhood on summer nights. The faraway cities, the friends my parents had known, were sealed in ice.

What does a family in exile watch on television? We had the same programs as our neighbors, but we watched them as outsiders, stealthily, seriously, spying on the culture that the TV characters revealed so easily, took for granted. We watched each joke, each gesture, and each turn of phrase. It was from television that my grandmother learned English. It was a television sitcom that inspired my American name. My parents named me after Samantha Stephens, the domestic witch who held the power to change her circumstances in a flash. My mother hoped that I would bring our family such a rapid transformation.

After school, my sisters and I were permitted to watch television until dinner. Our time slot ensured us a steady diet of sitcom reruns. I can remember a prolonged interest in The Flintstones and a brief dalliance with The Brady Bunch, but more than anything, we watched Gilligan's Island. Our repeated viewings of this show went on for years, from grade school through junior high and into high school. We would switch channels to catch another episode. The show ran twice and sometimes three times daily. I must have watched more than three thousand episodes of Gilligan's Island before leaving home for college, an average of thirty viewings per episode. For years, I found this fact embarrassing and astounding. How was it possible that we could continue to find this old sitcom, once described by the San Francisco Chronicle as "a new low in the networks' estimate of public intelligence," so endlessly absorbing? Why is Gilligan the one television show whose episodes I still remember word for word?

Now, twenty years away from Appleton, our prolonged attachment to the castaways makes better sense. The brief sea trip, the storm of change, the spinning wheel of disorientation in space and time, were elements of our own story. The seven members of my family—my maternal grandmother, my parents, my sisters, and myself—lived surrounded by "native" Americans, their speech slow, their hair blond, their customs alien. Our isolation was broken only by an occasional visit from my uncles, or a friend of the family traveling to Chicago, guest stars stopping at our way station for a home-cooked meal and an evening of reminiscence. When these visitors arrived, I saw my parents' past lives bloom before them—my father's witty Mandarin puns, the unusual snacks hand-carried from some distant Chinatown grocer—but inevitably, the visitor would leave, and we would be left alone to continue and make do.

Our cultural alienation varied according to our generation. My grandmother's homesickness was perhaps the most acute. Her age rendered her more nostalgic, less adaptive. Unlike my parents, who could look forward to a future as Americans, she had only her past in a country now closed off to her. Having reached the age when she found herself naturally turning to the past, she was obliged to reach through a geographical as well as temporal remove. The focus of her nostalgia settled on certain missing foods. Like poor Gilligan, who squandered two of his three magic wishes on ice cream, my grandmother lay awake thinking about the dishes she had once eaten and loved: the tiny seafood dumplings in Shanghai; savory chicken wrapped in lotus leaves, a specialty of Hangzhou; the flavor of a certain pepper grown only in Sichuan. These lost dishes took on the poignancy and power of her lost youth.

My parents, plunged into a new setting in midlife, spent their time and energy adapting to the change. They settled in the new country, but knew the value of the old. Each day they ventured out to work and make our family's future; at the same time, they upheld the values of the past. They tried to make the foods my grandmother missed. They found a butcher willing to sell us the unpopular cuts she liked. They were able to re-create, with some effort, the paper-thin spring roll wrappers. Certain staples were acutely missed and difficult to make. My mother still recalls their struggles to make tofu. They drove out into the country and rang the doorbell of a soybean farmer, from whom they bought two bushels of beans (I remember the empty baskets in the garage). The traditional method required grinding, but my parents had no grinder, so they used an electric mixer to beat the soybeans into milk. They worked away at it for hours, burning up one mixer's motor in the process. My father, a chemist, devised a way to curdle soybean milk with salt. They wrapped the curds into cheesecloth and pressed it in the refrigerator. The final product was, my grandmother said, "good." Having nothing to compare it with, I was reluctant to agree.

Born in Appleton, I was doubly ignorant: I knew nothing of China, but I knew little of America outside our home. I grew up into the space between two ignorances. My confusion was profound. It never occurred to me that I found Gilligan soothing because its characters' lives were similar to my American life. After all, I was a native Appletonian. But I was first of all a resident of my family's island, a living museum, a repository for mixed-up cultural adaptations. I can remember watching an episode featuring the Professor's hand-cranked phonograph, then turning off the television and going outside to fly kites using a Chinese-style kite-flying reel that my father had constructed from an old telephone dial and the parts of fishing rods. I would watch the castaways serve pancake syrup made from tropical trees and then I'd sit down to a real dinner made of Southern-style "salt chicken" my parents had cured on the back porch. My grandmother, who often caught the episodes while watching over a pot of brewing ginseng roots, praised the Professor's efforts to treat Gilligan's eyes by concocting a keptibora berry extract. She said, "Sometimes homemade medicine can work better than those foreign doctors."

I was intrigued and troubled by the way that Gilligan preserved the shadow of my parents' war. The original series, which ran from 1964 to 1967, presented a time in which the memories of World War II's Pacific battles were not long past. In one episode, the castaways stumbled upon a hidden munitions pit. Another episode guest-starred Vito Scotti as a deranged Japanese soldier who had survived on the Pacific islands for twenty years without knowing the war had ended. This particular episode left me uneasy. I felt uncomfortable with the comical portrayal of the Asian accent, his mannerisms, and his bottle-top glasses. But I felt even more disturbed by the idea of the poor, deluded man, insisting on his own version of the war, unaware that the world had gone on without him.

Of course, time does not stand still. We were caught in its flow, through the Cold War, through feminism and Watergate. My family adapted. My mother studied American customs as carefully as she had once memorized the history of the dynasties. She kept a box of file cards listing what Americans liked to eat (large cuts of meat, sweet and sour dishes) and what they did not like (rice gruel, tofu, fish with eyes and shrimp with the shells on). She earned a second degree and became a piano teacher. My father became a Packers fan. He set up a woodworking room in the basement and made our furniture. He built standing lamps bearing the characters for longevity. He built walnut end tables with the characters for "big good luck," finished and sealed under glass.

We grew into an accomplished, noisy family with a strong sense of identity and rich blood, squeezed into a house that was too small for us. My older sisters remember us as happy, striving. But when I think of my childhood, I remember a certain sadness in the house. It stole in on the long blue shadows of our winter evenings. It was folded into the embroidered coverlets my mother kept beneath her bed. Once, while we were cleaning, my mother showed me the basement storage bin where she and my father had stacked the dusty suitcases they had brought from overseas. There, carefully wrapped in an old sheet, my father kept the long, blue silk jacket his mother had made for him when he was a young man. His mother had been left behind; he had not heard from his parents since leaving the country in 1949. This separation lay at the heart of our sadness. We were one of many families who shape this country of transplanted people, holding the long, unspoken sorrow of those cut off from what they have known.

I believe we each lived on our own island. My father enveloped himself in privacy, remembering the people he had left; my mother regretted the lost dreams of her own youth. They were not entirely unhappy; it was not so simple. They were each of them a separate being, isolated, exiled by their separate losses. I was an exile as well—not a political or geographical exile, like my parents, but a child holding on to the secret, mutinous loneliness of one who is about to leave. My island was Appleton. I did not belong in town, and there was not enough room for me to continue in our family's makeshift world. I knew that I was meant to leave our home. In a few years, I would pack my own suitcase and leave to see the world. I would come back to visit, never to stay.

But at the time, my stay in Appleton felt interminable. Each day, I would trudge home from junior high school, where I was justifiably despised for being arrogant, a "brain," awkward, and friendless. I would be in an indignant, lonely frame of mind. The drifts of snow, which seemed to fall so thickly in those days, piled high around the house, glowed violet in the deepening dusk. Inside, when I took off my coat, I could feel the cold pressing through the windows. My sisters and I would sit in the room adjacent to the kitchen and watch television with all the lights turned on. Every day, the castaways attempted a new plan to escape. They all desired to leave, the insufferable Mr. Howell and the impossible Mary Ann. I watched carefully and seldom laughed. I found the castaways' frustration unsurprising. In every episode, they tried to leave the island, and every time, their plans were foiled. No one was getting anywhere.

And then the world changed. I remember the Chinese Ping-Pong players on television. After this time of tentative outreaches, of Ping-Pong diplomacy, my oldest sister graduated and went out into the world, like a milkweed seed traveling on the wind in search of a fertile place. In September 1978, Mao died. We heard it on the evening news. My parents grew very quiet when his death was announced. I asked, “Who is Mao?” Soon afterward, my second sister left home for college. My father wrote to the mainland government for information about the whereabouts of his family. He learned their addresses and made contact with his sisters—his parents and brother had died—and in 1982 he made the long trip back through time and across the world to see them again. In 1983, I left Wisconsin to attend Thurston Howell’s rival school and I stopped watching television for many years.

The world is so open now. There is an Asian grocery less than two miles from my parents’ house; even the supermarkets carry tofu made with local beans. In downtown Appleton, a crowded restaurant serves authentic Chinese dishes. My parents go to Lunar New Year parties with a local Chinese club. Nor need we content ourselves with China brought to us; now we can fly there ourselves. My sister and I traveled to Beijing to meet my father’s sisters. We brought back for my father his own kite-flying rod and a brightly painted silk kite shaped like a butterfly with twirling eyes. He liked the gift, although he did not use it. He has grown less sorrowful and less nostalgic, having rediscovered some old friends and reconnected with them safely, as adults. He has found a way off his island.

I have now lived away from Appleton for half my life. I moved to Connecticut, then Massachusetts, lowa, California, New Jersey. In my travels I have not found a home. It occurs to me now, once more in Massachusetts, that I have been entirely conditioned by my childhood in the Midwest, my desires shaped to a non-specified place-longing. No sooner do I settle in one town than I begin to daydream about somewhere else. But I know there is no perfect place. It is clear that I belong not to a place but to my far-flung family, my tightly knit and fractious group of former exiles.

On a recent visit to Wisconsin, while I was sitting with my mother, an episode of *Gilligan's Island* came on. My mother and I were cutting up the vegetables for dinner. We sat in our old places, with the winter light at the window just as it had been when I was a child.

The castaways were still ensnared, still waiting to be saved. In one episode, Mr. Howell lost $3 million to Gilligan, betting over a makeshift putting green. I discovered I could still remember the lines. But now I understood one of the jokes for the first time. “I’m having trouble adjusting to this oyster shell putter,” Mr. Howell said. Lovey replied, “Why, of course, it’s because there’s no r in the month.” Watching a typical exchange between Gilligan and the Skipper in their skimpy bamboo hut, I enjoyed the Skipper’s exaggerated mugging, the good-natured, slapstick humor. Why hadn’t I seen this, in all those years?

I asked my mother whether she thought Gilligan was funny. Through all those years she’d caught the show from a distance, too busy, or unwilling, to sit with us for hours.

She laid down her paring knife. She was not watching the TV but looking through her spectacles at some memory I couldn’t see. “Yes,” she said.

“Why is it funny to you?”

“The show is funny because the characters were in an absurd situation,” she replied. “They were unable to change with their environment.”

“What is the difference between something funny and something sad?”

She did not answer. For a moment I felt that I had been transported to those years when my parents did not know if they would ever be allowed to see the mainland. How many times did my parents dream that they were in China and wake up back in the Midwest, precisely where they had been? Where did they dream of being now? Finally, my mother smiled. She replied, “Some might say that problems are only sad if they don’t work out. Sad times can only become funny when they’re seen from far away.”

MEANINGS AND VALUES

1. What roles did television play in the life of the author’s family, and what effects did it have on the family as a whole or specific members of the family? (See especially Paragraphs 4 and 5.)

2. What is the "island in the sea" (Par. 2)? Why might the author have chosen to call it an "island" rather than referring to it by its (well-known) name? In what ways is the "island in the sea" linked to other islands mentioned in the essay: "a tiny island of Chinese memories and customs" (Par. 3); "each...our own island" (Par. 13); "Appleton" (Par. 13); and Gilligan's Island?
3. What answer(s) does the essay offer to this question: "Why is Gilligan the one television show whose episodes I still remember word for word?" (Par. 5).
4. Explain what Paragraph 23 seems to say about an important difference between the author's family and the characters in Gilligan's Island.

EXPOSITORY TECHNIQUES

1. What role in the organization of the essay does the rhetorical question at the end of Paragraph 5 play? (See "Guide to Terms": Rhetorical Questions.)
2. Where in the essay does the author first introduce and explain the main analogy she explores in the essay? Explain why you think she did not choose to introduce the analogy at the very beginning of the essay? What other analogies does the author offer in the essay (including the title)? How are they related (or unrelated) to the main analogy?
3. Identify the similarities in organization and emphasis shared by these Paragraphs: 7, 9, and 14. (Guide: Emphasis.) Explain what you think the author is trying to accomplish through the organization of these paragraphs.

DICTION AND VOCABULARY

1. Identify the words the author uses in Paragraph 1 to describe the town in ways that justify her mother's use of the word "Desolate."
2. To what kind of scene is the word "shimmering" often applied in a common (or clichéd) phrase? (Guide: Clichés.) What specific analogy does use of the word in Paragraph 3 introduce or reinforce? Do you consider this use of the word effective or ineffective? Why? (Guide: Evaluation.)
3. If you do not know the meaning of some of the following words, consult a dictionary: stealthily (Par. 4); dalliance (5); disorientation, reminiscence (6); savory, poignancy (7); staples, curdle (8); cured (9); munitions (10); dynasties, characters (11); mutinous (13); interminable, indignant (14); fractious (17); mugging (19).

READ TO WRITE

1. Collaborating: Break into groups of four. Discuss family relationships and experiences similar to those Chang describes that you and your classmates have had. Plan an essay using representative experiences from each member of the group. Be sure to choose the experiences carefully so that the analogy that develops from each can be connected through transitions to develop a coherent essay.
2. Considering Audience: Much of this essay focuses on immigrant experience and the perspectives and history of members of a particular cultural, ethnic group. As a consequence, the writer spends some time explaining experiences and outlooks with which readers may be unfamiliar. Prepare an essay similar in style and use of analogy to Chang's that draws on sources of experiences and feelings that readers are more likely to share: youth sports, vacation travel, high school, or popular music, for example.
3. Developing an Essay: As the basis for the main analogy in her essay, Chang uses episodes in a television show that come to embody ideas, values, feelings, and experiences. Use a similar source of analogies for an essay of your own that explores and explains your own experiences or ones you share with your readers.

(NOTE: Suggestions for topics requiring development by use of ANALOGY are on pp. 248–249 at the end of this chapter.)

Issues and Ideas

Humans and Animals

- Tom Wolfe, O Rotten Gotham—Sliding Down into the Behavioral Sink
- Barbara Kingsolver, High Tide in Tuscon

Like most people, you have probably spent considerable time and effort trying to understand how people behave and how they maintain (or fail to maintain) relationships with each other. One way to do this is through careful observation of social interaction. Yet the complexity of human behavior often makes it difficult to isolate the patterns that can explain our relationships or predict our actions.

For this reason, scientists and other students of human behavior often look for explanatory patterns in studies of plants, animals, or natural processes. Historians sometimes discuss a civilization in terms of its germination, growth, flowering, and decay, for example. A sociologist may use a concept like "entropy" (from physics) to explain a society's decline into chaos, and an anthropologist may turn to biology and natural history to explain our reluctance to abandon settings that once held meaning for us.

To borrow such explanatory patterns is to make use of analogy: explaining complex behaviors by those behaviors that seem simpler and easier to understand (though they may, in truth, be just as difficult and complicated). The risk in borrowing explanatory patterns is that they may oversimplify relationships (bees can represent hardworking groups, but bee societies are certainly less complex than human ones) or that they may be mostly inappropriate (we can talk of a friendship "blossoming" while we know that it has few other similarities to plants or plant life).

In reading the discussions of human behavior in Tom Wolfe's "O Rotten Gotham" and Barbara Kingsolver's "High Tide in Tucson," therefore, pay attention to how the writers use analogy as an effective expository strategy, and also to the ways they use it as a tool for understanding. Bear in mind that an explanation that is rhetorically successful may still take unfounded logical leaps or leave important questions unanswered.

Tom Wolfe

TOM WOLFE was born in 1931 and grew up in Richmond, Virginia, graduated from Washington and Lee University, and took his doctorate at Yale. After working for several years as a reporter for the Washington Post, he joined the staff of the New York Herald Tribune in 1962. He has won two Washington Newspaper Guild Awards, one for humor and the other for foreign news. Wolfe has been a regular contributor to New York, Esquire, and other magazines. His books include The Kandy-Kolored Tangerine-Flake Streamline Baby (1965), The Electric Kool-Aid Acid Test (1968), The Pump House Gang (1968), Radical Chic and Mau-Mauing the Flak Catchers (1970), The New Journalism (1973), The Painted Word (1975), The Right Stuff (1977), In Our Time (1980), Underneath the I-Beams: Inside the Compound (1981), From Bauhaus to Our House (1981), The Purple Decades: A Reader (1984), The Bonfire of the Vanities (1986), A Man in Full (1999), Hooking Up (2000), and I Am Charlotte Simmons (2004).

O Rotten Gotham—Sliding Down into the Behavioral Sink

"O Rotten Gotham—Sliding Down into the Behavioral Sink," as used here, is excerpted from a longer selection by that title in Wolfe's book The Pump House Gang (1968). Here, as he frequently does, the author investigates an important aspect of modern life—seriously, but in his characteristic and seemingly freewheeling style. It is a style that is sometimes ridiculed by scholars but is far more often admired. (Wolfe, as the serious student will discover, is always in complete control of his materials and methods, using them to create certain effects to reinforce his ideas.) In this piece, his analogy is particularly noteworthy for the extensive usage he is able to get from it.

I just spent two days with Edward T. Hall, an anthropologist, watching thousands of my fellow New Yorkers short-circuiting themselves into hot little twitching death balls with jolts of their own adrenalin. Dr. Hall says it is overcrowding that does it. Overcrowding gets the adrenalin going, and the adrenalin gets them hyped up. And here they are, hyped up, turning bilious, nephritic, a queer, autistic, sadistic, barren, batty, sloppy, hot-in-the-pants, chancred-on-the-flankers, leering, puling, numb—the usual in New York, in other words, and God knows what else. Dr. Hall has the theory that overcrowding has already thrown New York into a state of behavioral sink. Behavioral sink is a term from ethology, which is the study of how animals relate to their environment. Among animals, the sink winds up with a "population collapse" or "massive die-off." O Rotten Gotham.

It got to be easy to look at New Yorkers as animals, especially looking down from some place like a balcony at Grand Central at the rush hour Friday afternoon. The floor was filled with the poor white humans, running around, dodging, blinking their eyes, making a sound like a pen full of starlings or rats or something.

"Listen to them skid," says Dr. Hall.

He was right. The poor old etiolate animals were out there skidding on their rubber soles. You could hear it once he pointed it out. They stop short to keep from hitting somebody or because they are disoriented and they suddenly stop and look around, and they skid on their rubber-soled shoes, and a screech goes up. They pour out onto the floor down the escalators from the Pan-Am Building, from 42nd Street, from Lexington Avenue, up out of subways, down into subways, railroad trains, up into helicopters—

"You can also hear the helicopters all the way down here," says Dr. Hall. The sound of the helicopters using the roof of the Pan-Am Building nearly fifty stories up beats right through. "If it weren't for this ceiling"—he is referring to the very high ceiling in Grand Central—"this place would be unbearable with this kind of crowding. And yet they'll probably never 'waste' space like this again."

They screech! And the adrenal glands in all those poor white animals enlarge, micrometer by micrometer, to the size of cantaloupes. Dr. Hall pulls a Minox camera out of a holster he has on his belt and starts shooting away at the human scurry. The Sink!

Dr. Hall has the Minox up to his eye — he is a slender man, calm, 52 years old, young-looking, an anthropologist who has worked with Navajos, Hopis, Spanish-Americans, Negroes, Trukese. He was the most important anthropologist in the government during the crucial years of the foreign aid program, the 1950s. He directed both the Point Four training program and the Human Relations Area Files. He wrote The Silent Language and The Hidden Dimension, two books that are picking up the kind of "underground" following his friend Marshall McLuhan started picking up about five years ago. He teaches at the Illinois Institute of Technology, lives with his wife, Mildred, in a high-ceilinged town house on one of the last great residential streets in downtown Chicago, Astor Street; he has a grown son and daughter, loves good food, good wine, the relaxed, civilized life — but comes to New York with a Minox at his eye to record! — perfect — The Sink.

We really got down in there by walking down into the Lexington Avenue line subway stop under Grand Central. We inhaled those nice big fluffy fumes of human sweat, urine, effluvia, and sebaceous secretions. One old female human was already stroked out on the upper level, on a stretcher, with two policemen standing by. The other humans barely looked at her. They rushed into line. They bellied each other, haunch to paunch, down the stairs. Human heads shone through the gratings. The species North European tried to create bubbles of space around themselves, about a foot and a half in diameter —

"See, he's reacting against the line," says Dr. Hall.

— but the species Mediterranean presses on in. The hell with bubbles of space. The species North European resents that, this male human behind him presses forward toward the booth...breathing on him, he's disgusted, he pulls out of the line entirely, the species Mediterranean resents him for resenting it, and neither of them realizes what the hell they are getting irritable about exactly. And in all of them the old adrenals grow another micrometer.

Dr. Hall whips out the Minox. Too perfect! The bottom of The Sink.

It is the sheer overcrowding, such as occurs in the business sections of Manhattan five days a week and in Harlem, Bedford-Stuyvesant, southeast Bronx every day — sheer overcrowding is converting New Yorkers into animals in a sink pen. Dr. Hall's argument runs as follows: all animals, including birds, seem to have a built-in inherited requirement to have a certain amount of territory, space, to lead their lives in. Even if they have all the food they need, and there are no predatory animals threatening them, they cannot tolerate crowding beyond a certain point. No more than two hundred wild Norway rats can survive on a quarter acre of ground, for example, even when they are given all the food they can eat. They just die off.

But why? To find out, ethologists have run experiments on all sorts of animals, from stickleback crabs to Sika deer. In one major experiment, an ethologist named John Calhoun put some domesticated white Norway rats in a pen with four sections to it, connected by ramps. Calhoun knew from previous experiments that the rats tend to split up into groups of ten to twelve and that the pen, therefore, would hold forty to forty-eight rats comfortably, assuming they formed four equal groups. He allowed them to reproduce until there were eighty rats, balanced between male and female, but did not let it get any more crowded. He kept them supplied with plenty of food, water, and nesting materials. In other words, all their more obvious needs were taken care of. A less obvious need — space — was not. To the human eye, the pen did not even look especially crowded. But to the rats, it was crowded beyond endurance.

The entire colony was soon plunged into a profound behavioral sink. "The sink," said Calhoun, "is the outcome of any behavioral process that collects animals together in unusually great numbers. The unhealthy connotations of the term are not accidental: a behavioral sink does act to aggravate all forms of pathology that can be found within a group."

For a start, long before the rat population reached eighty, a status hierarchy had developed in the pen. Two dominant male rats took over the two end sections, acquired harems of eight to ten females each, and forced the rest of the rats into the two middle pens. All the overcrowding took place in the middle pens. That was where the "sink" hit. The aristocrat rats at the end grew bigger, sleeker, healthier, and more secure the whole time.

In The Sink, meanwhile, nest building, courting, sex behavior, reproduction, social organization, health—all of it went to pieces. Normally, Norway rats have a mating ritual in which the male chases the female, the female ducks down into a burrow and sticks her head up to watch the male. He performs a little dance outside the burrow, then she comes out, and he mounts her, usually for a few seconds. When The Sink set in, however, no more than three males—the dominant males in the middle sections—kept up the old customs. The rest tried everything from satyrism to homosexuality or else gave up on sex altogether. Some of the subordinate males spent all their time chasing females. Three or four might chase one female at the same time, and instead of stopping at the burrow entrance for the ritual, they would charge right in. Once mounted, they would hold on for minutes instead of the usual seconds.

Homosexuality rose sharply. So did bisexuality. Some males would mount anything—males, females, babies, senescent rats, anything. Still other males dropped sexual activity altogether, wouldn't fight and, in fact, would hardly move except when the other rats slept. Occasionally, a female from the aristocrat rats' harems would come over the ramps and into the middle sections to sample life in The Sink. When she had had enough, she would run back up the ramp. Sink males would give chase up to the top of the ramp, which is to say, to the very edge of the aristocratic preserve. But one glance from one of the king rats would stop them cold and they would return to The Sink.

The slumming females from the harems had their adventures and then returned to a placid, healthy life. Females in The Sink, however, were ravaged, physically and psychologically. Pregnant rats had trouble continuing pregnancy. The rate of miscarriages increased significantly, and females started dying from tumors and other disorders of the mammary glands, sex organs, uterus, ovaries, and Fallopian tubes. Typically, their kidneys, livers, and adrenals were also enlarged or diseased or showed other signs associated with stress.

Child-rearing became totally disorganized. The females lost the interest or the stamina to build nests and did not keep them up if they did build them. In the general filth and confusion, they would not put themselves out to save offspring they were momentarily separated from. Frantic, even sadistic competition among the males was going on all around them and rendering their lives chaotic. The males began unprovoked and senseless assaults upon one another, often in the form of tail-biting. Ordinarily, rats will suppress this kind of behavior when it crops up. In The Sink, male rats gave up all policing and just looked out for themselves. The "pecking order" among males in The Sink was never stable. Normally, male rats set up a three-class structure. Under the pressure of overcrowding, however, they broke up into all sorts of unstable subclasses, cliques, packs — and constantly pushed, probed, explored, tested one another's power. Anyone was fair game, except for the aristocrats in the end pens.

Calhoun kept the population down to eighty, so that the next stage, "population collapse" or "massive die-off," did not occur. But the autopsies showed that the pattern — as in the diseases among the female rats — was already there.

The classic study of die-off was John J. Christian's study of Sika deer on James Island in the Chesapeake Bay, west of Cambridge, Maryland. Four or five of the deer had been released on the island, which was 280 acres and uninhabited, in 1916. By 1955 they had bred freely into a herd of 280 to 300. The population density was only about one deer per acre at this point, but Christian knew that this was already too high for the Sikas' inborn space requirements, and something would give before long. For two years the number of deer remained 280 to 300. But suddenly, in 1958, over half the deer died; 161 carcasses were recovered. In 1959 more deer died and the population steadied at about 80.

In two years, two-thirds of the herd had died. Why? It was not starvation. In fact, all the deer collected were in excellent condition, with well-developed muscles, shining coats, and fat deposits between the muscles. In practically all the deer, however, the adrenal glands had enlarged by 50 percent. Christian concluded that the die-off was due to "shock following severe metabolic disturbance, probably as a result of prolonged adrenocortical hyperactivity....There was no evidence of infection, starvation, or other obvious cause to explain the mass mortality." In other words, the constant stress of overpopulation, plus the normal stress of the cold of the winter, had kept the adrenalin flowing so constantly in the deer that their systems were depleted of blood sugar and they died of shock.

Well, the white humans are still skidding and darting across the floor of Grand Central. Dr. Hall listens a moment longer to the skidding and the darting noises, and then says, "You know, I've been on commuter trains here after everyone has been through one of these rushes, and I'll tell you, there is enough acid flowing in the stomachs in every car to dissolve the rails underneath."

Just a little invisible acid bath for the linings to round off the day. The ulcers the acids cause, of course, are the one disease people have already been taught to associate with the stress of city life. But over-crowding, as Dr. Hall sees it, raises a lot more hell with the body than just ulcers. In everyday life in New York — just the usual, getting to work, working in massively congested areas like 42nd Street between Fifth Avenue and Lexington, especially now that the Pan-Am Building is set in there, working in cubicles such as those in the editorial offices at Time-Life, Inc., which Dr. Hall cites as typical of New York's poor handling of space, working in cubicles with low ceilings and, often, no access to a window, while construction crews all over Manhattan drive everybody up the Masonite wall with air-pressure generators with noises up to the boil-a-brain decibel level, than rushing to get home, piling into subways and trains, fighting for time and for space, the usual day in New York—the whole now-normal thing keeps shooting jolts of adrenalin into the body, breaking down the body's defenses and winding up with the work-a-daddy human animal stroked out at the breakfast table with his head apoplexed like a cauliflower out of his $6.95 semi-spread Pima-cotton shirt, and nosed over into a plate of No-Kolresto egg substitute, signing off with the black thrombosis, cancer, kidney, liver, or stomach failure, and the adrenals ooze to a halt, the size of eggplants in July.

One of the people whose work Dr. Hall is interested in on this score is Rene Dubos at the Rockefeller Institute. Dubos's work indicates that specific organisms, such as the tuberculosis bacillus or a pneumonia virus, can seldom be considered "the cause" of a disease. The germ or virus, apparently, has to work in combination with other things that have already broken the body down in some way— such as the old adrenal hyperactivity. Dr. Hall would like to see some autopsy studies made to record the size of adrenal glands in New York, especially of people crowded into slums and people who go through the full rush-hour-work-rush-hour cycle every day. He is afraid that until there is some clinical, statistical data on how overcrowding actually ravages the human body, no one will be willing to do anything about it. Even in so obvious a thing as air pollution, the pattern is familiar. Until people can actually see the smoke or smell the sulphur or feel the sting in their eyes, politicians will not get excited about it, even though it is well known that many of the lethal substances polluting the air are invisible and odorless. For one thing, most politicians are like the aristocrat rats. They are insulated from The Sink by practically sultanic buffers — limousines, chauffeurs, secretaries, aides-de-camp, doormen, shuttered houses, high-floor apartments. They almost never ride subways, fight rush hours, much less live in the slums or work in the Pan-Am Building.

MEANINGS AND VALUES

1. Who are members of the "species Mediterranean"? The "species North European"? What could account for their differences in space requirements (Pars. 8–10)?
2. Is this writing primarily objective or subjective? (See "Guide to Terms": Objective/Subjective.) Why?
3. Do you get the impression that the author is being unkind, "making fun" of the harried New Yorkers? How, if at all, does he prevent such an impression?

EXPOSITORY TECHNIQUES

1. Is this analogy a success, or does the author work it too hard? Be prepared to defend your answer. (Guide: Evaluation.)
2. What are the benefits of the frequent return to what Dr. Hall is doing or saying (e.g., in Pars. 3, 5, 7, 9, 11, and 23)?
3. Paragraph 12 has a useful function beyond the simple information it provides—a sort of organic relation to the coming development. Explain how this is accomplished.
4. The preceding two questions highlight the ways Wolfe deals with problems of transition in this essay. (Guide: Transition.) How are such issues also matters of coherence? (Guide: Coherence.)
5. Analyze stylistic differences, with resulting effects, between the following sections of the essay (Guide: Style/Tone):

   a. The description of chaos at Grand Central and the information about Dr. Hall in Paragraph 7

   b. The Grand Central scene and the account of the laboratory experiment with rats in Paragraphs 8–20

   c. The Grand Central scene and the final paragraph

6. What is gained or lost by the unusual length and design of the last sentence of Paragraph 24? (We can be sure that it did not "just happen" to Wolfe—and equally sure that a sentence of such length would be disastrous in most writing.) (Guide: Syntax.)

DICTION AND VOCABULARY

1. What is the significance of the word "Gotham"?
2. Why do you think the author refers to "my fellow New Yorkers" in the first sentence? What would have been the effect had he not taken such a step?
3. Why does he consistently, after Paragraph 2, refer to the people as "poor white humans," "poor human animals," etc.?
4. In Paragraph 14 he refers to the connotations of the word "sink." What are its possible connotations? (Guide: Connotation/Denotation.)
5. Cite examples of verbal irony to be found in Paragraphs 5, 8, and 24.
6. Consult your dictionary as needed for full understanding of the following words: autistic, puling (Par.1); etiolate (4); effluvia, sebaceous (8); pathology (14); satyrism (16); senescent (17); decibel, thrombosis (24); lethal (25).

READ TO WRITE

1. Collaborating: One especially effective technique Wolfe employs in this essay is observation—specifically the overall view afforded by a balcony high above the main hall of Grand Central Station. With a team of three other people, choose a location that will provide you with a broad overview of human actions and behavior. Go to that spot with notebooks in hand and individually, without discussion, write your observations. Return to the classroom and compare your notes. What similarities in behavior did you all observe? What different activities and images stood out in your minds? Write a short analysis of your collective observations. Be sure to include an explanation of the behaviors noticeable to all of you and reasons why other behaviors stood out to individual observers.
2. Considering Audience: Would this essay have a strong effect on readers raised in a rural area? What aspects of this essay might help someone from a farming environment relate to this? What other behaviors could be addressed to make this more accessible to audiences from rural areas? Choose a particular animal behavior that could be analogous to human activity in rural locations and create a plan for an essay based on the analogy.
3. Developing an Essay: Popular magazines can provide good summaries of contemporary research as can specialized encyclopedias and general interest books. Choose a theory or some research you think is insightful and use it to help explain common behaviors, perhaps some that you have observed in the manner described in the "collaborating" question. Prepare an essay built around two or more explanatory theories as Wolfe does in his essay.

(NOTE: Suggestions for topics requiring development by use of ANALOGY are on pp. 248–249 at the end of this chapter.)

Barbara Kingsolver

BARBARA KINGSOLVER was born in 1955 in Annapolis, Maryland, and raised in eastern Kentucky. She studied biology at DePauw University (B.A., 1977) and the University of Arizona (M.S., 1981) and worked as a scientist and scientific writer before beginning her career as a writer of fiction and essays. Her highly acclaimed books include The Bean Trees (1988), Animal Dreams (1990), and Pigs in Heaven (1993) (novels); Homeland and Other Stories (1989) (stories); Another America (1992) (poetry); High Tide in Tucson: Essays from Now or Never (1996) (essays); The Poisonwood Bible (1998) (novel); Prodigal Summer (2000) (novel); and Small Wonder (2002) (essays).

High Tide in Tucson

This essay, from Kingsolver's book with the same title, is built around a surprising and imaginative analogy. It offers a different and more optimistic perspective on modern society and behavior than Tom Wolfe does in the preceding essay ("O Rotten Gotham"), yet, like Wolfe, the author draws heavily on scientific research for her explanations.

Ahermit crab lives in my house. Here in the desert he's hiding out from local animal ordinances, at minimum, and maybe even the international laws of native-species transport. For sure, he's an outlaw against nature. So be it.

He arrived as a stowaway two Octobers ago. I had spent a week in the Bahamas, and while I was there, wishing my daughter could see those sparkling blue bays and sandy covers, I did exactly what she would have done: I collected shells. Spiky murexes, smooth purple moon shells, ancient-looking whelks sand-blasted by the tide—I tucked them in the pockets of my shirt and shorts until my lumpy, suspect hemlines gave me away, like a refugee smuggling the family fortune. When it was time to go home, I rinsed my loot in the sink and packed it carefully into a plastic carton, then nested it deep in my suitcase for the journey to Arizona.

I got home in the middle of the night, but couldn't wait till morning to show my hand. I set the carton on the coffee table for my daughter to open. In the dark living room her face glowed, in the way of antique stories about children and treasure. With perfect delicacy she laid the shells out on the table, counting, sorting, designating scientific categories like yellow-striped pinky, Barnacle Bill's pocketbook....Yeek! She let loose a sudden yelp, dropped her booty, and ran to the far end of the room. The largest, knottiest whelk had begun to move around. First it extended one long red talon of a leg, tap-tap-tapping like a blind man's cane. Then came half a dozen more red legs, plus a pair of eyes on stalks, and a purple claw that snapped open and shut in a way that could not mean We come in Friendship.

Who could blame this creature? It had fallen asleep to the sound of the Caribbean tide and awakened on a coffee table in Tucson, Arizona, where the nearest standing water source of any real account was the municipal sewage-treatment plant.

With red stiletto legs splayed in all directions, it lunged and jerked its huge shell this way and that, reminding me of the scene I make whenever I'm moved to rearrange the living-room sofa by myself. Then, while we watched in stunned reverence, the strange beast found its bearings and began to reveal a determined, crabby grace. It felt its way to the edge of the table and eased itself over, not falling bang to the floor but hanging suspended underneath within the long grasp of its ice-tong legs, lifting any two or three at a time while many others still held in place. In this remarkable fashion it scrambled around the underside of the table's rim, swift and sure and fearless like a rock climber's dream.

If you ask me, when something extraordinary shows up in your life in the middle of the night, you give it a name and make it the best home you can.

The business of naming involved a grasp of hermit-crab gender that was way out of our league. But our household had a deficit of males, so my daughter and I chose Buster, for balance. We gave him a terrarium with clean gravel and a small cactus plant dug out of the yard and a big cockleshell full of tap water. All this seemed to suit him fine. To my astonishment our local pet store carried a product called Vitaminized Hermit Crab Cakes. Tempting enough (till you read the ingredients) but we passed, since our household leans more toward the recycling ethic. We give him leftovers. Buster's rapture is the day I drag the unidentifiable things in cottage cheese containers out of the back of the fridge.

We've also learned to give him a continually changing assortment of seashells, which he tries on and casts off like Cinderella's stepsisters preening for the ball. He'll sometimes try to squeeze into ludicrous outfits too small to contain him (who can't relate?). In other moods, he will disappear into a conch the size of my two fists and sit for a day, immobilized by the weight of upward mobility. He is in every way the perfect housemate: quiet, entertaining, and willing to eat up the trash. He went to school for first-grade show-and-tell, and was such a hit the principal called up to congratulate me (I think) for being a broad-minded mother.

It was a long time, though, before we began to understand the content of Buster's character. He required more patient observation than we were in the habit of giving to a small, cold-blooded life. As months went by, we would periodically notice with great disappointment that Buster seemed to be dead. Or not entirely dead, but ill, or maybe suffering the crab equivalent of the blues. He would burrow into a gravelly corner, shrink deep into his shell, and not move, for days and days. We'd take him out to play, dunk him in water, offer him a new frock—nothing. He wanted to be still.

Life being what it is, we'd eventually quit prodding our sick friend to cheer up, and would move on to the next stage of a difficult friendship: neglect. We'd ignore him wholesale, only to realize at some point later on that he'd lapsed into hyperactivity. We'd find him ceaselessly patrolling the four corners of his world, turning over rocks, rooting out and dragging around truly disgusting pork-chop bones, digging up his cactus and replanting it on its head. At night when the household fell silent I would lie in bed listening to his methodical pebbly racket from the opposite end of the house. Buster was manic-depressive.

I wondered if he might be responding to the moon. I'm partial to lunar cycles, ever since I learned as a teenager that human females in their natural state—which is to say, sleeping outdoors—arrive at menses in synchrony and ovulate with the full moon. My imagination remains captive to that primordial village: the comradely grumpiness of new-moon days, when the entire world at once would go on PMS alert. And the compensation that would turn up two weeks later on a wild wind, under that great round headlamp, driving both men and women to distraction with the overt prospect of conception. The surface of the land literally rises and falls—as much as fifty centimeters!—as the moon passes over, and we clay-footed mortals fall like dominoes before the swell. It's no surprise at all if a full moon inspires lyricists to corny love songs, or inmates to slamming themselves against barred windows. A hermit crab hardly seems this impetuous, but animals are notoriously responsive to the full moon: wolves howl; roosters announce daybreak all night. Luna moths, Arctic loons, and lunatics have a sole inspiration in common. Buster's insomniac restlessness seemed likely to be a part of the worldwide full-moon fellowship.

But it wasn't, exactly. The full moon didn't shine on either end of his cycle, the high or the low. We tried to keep track, but it soon became clear: Buster marched to his own drum. The cyclic force that moved him remained as mysterious to us as his true gender and the workings of his crustacean soul.

Buster's aquarium occupies a spot on our kitchen counter right next to the coffeepot, and so it became my habit to begin mornings with chin in hands, pondering the oceanic mysteries while awaiting percolation. Finally, I remembered something. Years ago when I was a graduate student of animal behavior, I passed my days reading about the likes of animals' internal clocks. Temperature, photoperiod, the rise and fall of hormones—all these influences have been teased apart like so many threads from the rope that pulls every creature to its regulated destiny. But one story takes the cake. F. A. Brown, a researcher who is more or less the grandfather of the biological clock, set about in 1954 to track the cycles of intertidal oysters. He scooped his subjects from the clammy coast of Connecticut and moved them into the basement of a laboratory in landlocked Illinois. For the first fifteen days in their new aquariums, the oysters kept right up with their normal intertidal behavior: they spent time shut away in their shells, and time with their mouths wide open, siphoning their briny bath for the plankton that sustained them, as the tides ebbed and flowed on the distant Connecticut shore. In the next two weeks, they made a mystifying shift. They still carried out their cycles in unison, and were regular as the tides, but their high-tide behavior didn't coincide with high tide in Connecticut, or for that matter California, or any other tidal charts known to science. It dawned on the researchers after some calculations that the oysters were responding to high tide in Chicago. Never mind that the gentle mollusks lived in glass boxes in the basement of a steel-and-cement building. Nor that Chicago has no ocean. In the circumstances, the oysters were doing their best.

When Buster is running around for all he's worth, I can only presume it's high tide in Tucson. With or without evidence, I'm romantic enough to believe it. This is the lesson of Buster, the poetry that camps outside the halls of science: Jump for joy, hallelujah. Even a desert has tides.

When I was twenty-two, I donned the shell of a tiny yellow Renault and drove with all I owned from Kentucky to Tucson. I was a typical young American, striking out. I had no earthly notion that I was bringing on myself a calamity of the magnitude of the one that befell poor Buster. I am the commonest kind of North American refugee: I believe I like it here, far-flung from my original home. I've come to love the desert that bristles and breathes and sleeps outside my windows. In the course of seventeen years I've embedded myself in a family here—neighbors, colleagues, friends I can't foresee living without, and a child who is native to this ground, with loves of her own. I'm here for good, it seems.

And yet I never cease to long in my bones for what I left behind. I open my eyes on every new day expecting that a creek will run through my backyard under broad-leafed maples, and that my mother will be whistling in the kitchen. Behind the howl of coyotes, I'm listening for meadowlarks, I sometimes ache to be rocked in the bosom of the blood relations and busybodies of my childhood. Particularly in my years as a mother without a mate, I have deeply missed the safety net of extended family.

In a city of half a million I still really look at every face, anticipating recognition, because I grew up in a town where every face meant something to me. I have trouble remembering to lock the doors. Wariness of strangers I learned the hard way. When I was new to the city, I let a man into my house one hot afternoon because he seemed in dire need of a drink of water; when I turned from the kitchen sink I found sharpened steel shoved against my belly. And so I know, I know. But I cultivate suspicion with as much difficulty as I force tomatoes to grow in the drought-stricken hardpan of my strange backyard. No creek runs here, but I'm still listening to secret tides, living as if I belonged to an earlier place: not Kentucky, necessarily, but a welcoming earth and a human family. A forest. A species.

In my life I've had frightening losses and unfathomable gifts: A knife in my stomach. The death of an unborn child. Sunrise in a rain forest. A stupendous column of blue butterflies rising from a Greek monastery. A car that spontaneously caught fire while I was driving it. The end of a marriage, followed by a year in which I could barely understand how to keep living. The discovery, just weeks ago when I rose from my desk and walked into the kitchen, of three strangers industriously relieving my house of its contents.

I persuaded the strangers to put down the things they were holding (what a bizarre tableau of anti-Magi they made, these three unwise men, bearing a camera, an electric guitar, and a Singer sewing machine), and to leave my home, pronto. My daughter asked excitedly when she got home from school, "Mom, did you say bad words?" (I told her this was the very occasion that bad words exist for.) The police said, variously, that I was lucky, foolhardy, and "a brave lady." But it's not good luck to be invaded, and neither foolish nor brave to stand your ground. It's only the way life goes, and I did it, just as years ago I fought off the knife; mourned the lost child; bore witness to the rain forest; claimed the blue butterflies as Holy Spirit in my private pantheon; got out of the burning car; survived the divorce by putting one foot in front of the other and taking good care of my child. On most important occasions, I cannot think how to respond, I simply do. What does it mean, anyway, to be an animal in human clothing? We carry around these big brains of ours like the crown jewels, but mostly I find that millions of years of evolution have prepared me for one thing only: to follow internal rhythms. To walk upright, to protect my loved ones, to cooperate with my family group—however broadly I care to define it—to do whatever will help us thrive. Obviously, some habits that saw us through the millennia are proving hazardous in a modern context: for example, the yen to consume carbohydrates and fat whenever they cross our path, or the proclivity for unchecked reproduction. But it's surely worth forgiving ourselves these tendencies a little, in light of the fact that they are what got us here. Like Buster, we are creatures of inexplicable cravings. Thinking isn't everything. The way I stock my refrigerator would amuse a level-headed interplanetary observer, who would see I'm responding not to real necessity but to the dread of famine honed in the African savannah. I can laugh at my Rhodesian Ridgeback as she furtively sniffs the houseplants for a place to bury bones, and circles to beat down the grass before lying on my kitchen floor. But she and I are exactly the same kind of hairpin.

We humans have to grant the presence of some past adaptations, even in their unforgivable extremes, if only to admit they are permanent rocks in the steam we're obliged to navigate. It's easy to speculate and hard to prove, ever, that genes control our behaviors. Yet we are persistently, excruciatingly adept at many things that seem no more useful to modern life than the tracking of tides in a desert. At recognizing insider/outsider status, for example, starting with white vs. black and grading straight into distinctions so fine as to baffle the bystander—Serb and Bosnian, Hutu and Tutsi, Crip and Blood. We hold that children learn discrimination from their parents, but they learn it fiercely and well, world without end. Recite it by rote like a multiplication table. Take it to heart, though it's neither helpful nor appropriate, anymore than it is to hire the taller of two men applying for a position as bank clerk, though statistically we're likely to do that too. Deference to the physical superlative, a preference for the scent of our own clan: a thousand anachronisms dance down the strands of our DNA from a hidebound tribal past, guiding us toward the glories of survival, and some vainglories as well. If we resent being bound by these ropes, the best hope is to seize them out like snakes, by the throat, look them in the eye and own up to their venom.

But we rarely do, silly egghead of a species that we are. We invent the most outlandish intellectual grounds to justify discrimination. We tap our toes to chaste love songs about the silvery moon without recognizing them as hymns to copulation. We can dress up our drives, put them in three-piece suits or ballet slippers, but still they drive us. The wonder of it is that our culture attaches almost unequivocal shame to our animal nature, believing brute urges must be hurtful, violent things. But it's no less an animal instinct that leads us to marry (species that benefit from monogamy tend to practice it); to organize a neighborhood cleanup campaign (rare and doomed is the creature that fouls its nest); to improvise and enforce morality (many primates socialize their young to be cooperative and ostracize adults who won't share food).

It's starting to look as if the most shameful tradition of Western civilization is our need to deny we are animals. In just a few centuries of setting ourselves apart as landlords of the Garden of Eden, exempt from the natural order and entitled to hold dominion, we have managed to behave like so-called animals anyway, and on top of it to wreck most of what took three billion years to assemble. Air, water, earth, and fire—so much of our own element so vastly contaminated, we endanger our own future. Apparently we never owned the place after all. Like every other animal, we're locked into our niche: the mercury in the ocean, the pesticides on the soybean fields, all comes home to our breastfed babies. In the silent spring we are learning it's easier to escape from a chain gang than a food chain. Possibly we will have the sense to begin a new century by renewing our membership in the Animal Kingdom.

Not long ago I went backpacking in the Eagle Tail Mountains. This range is a trackless wilderness in western Arizona that most people would call Godforsaken, taking for granted God's preference for loamy topsoil and regular precipitation. Whoever created the Eagle Tails had dry heat on the agenda, and a thing for volcanic rock. Also cactus, twisted mesquites, and five-alarm sunsets. The hiker's program in a desert like this is dire and blunt: carry in enough water to keep you alive till you can find a water source: then fill your bottles and head for the next one, or straight back out. Experts warn adventurers in this region, without irony, to drink their water while they're still alive, as it won't help later.

Several canyons looked promising for springs on our topographical map, but turned up dry. Finally, at the top of a narrow, overgrown gorge we found a blessed tinaja, a deep, shaded hollow in the rock about the size of four or five claw-foot tubs, holding water. After we drank our fill, my friends struck out again, but I opted to stay and spend the day in the hospitable place that had slaked our thirst. On either side of the natural water tank, two shallow caves in the canyon wall faced each other, only a few dozen steps apart. By crossing from one to the other at noon, a person could spend the whole day here in shady comfort—or in colder weather, follow the winter sun. Anticipating a morning of reading, I pulled Angle of Repose out of my pack and looked for a place to settle on the flat, dusty floor of the west-facing shelter. Instead, my eyes were startled by a smooth corn-grinding stone. It sat in the exact center of its rock bowl, as if the Hohokam woman or man who used this mortar and pestle had walked off and left them there an hour ago. The Hohokam disappeared from the earth in A.D. 1450. It was inconceivable to me that no one had been here since then, but that may have been the case—that is the point of trackless wilderness. I picked up the grinding stone. The size and weight and smooth, balanced perfection of it in my hand filled me at once with a longing to possess it. In its time, this excellent stone was the most treasured thing in a life, a family, maybe the whole neighborhood. To whom it still belonged. I replaced it in the rock depression, which also felt smooth to my touch. Because my eyes now understood how to look at it, the ground under my feet came alive with worked flint chips and pottery shards. I walked across to the other cave and found its floor just as lively with historic debris. Hidden under brittlebush and catclaw I found another grinding stone, this one some distance from the depression in the cave floor that once answered its pressure daily, for the grinding of corn or mesquite beans.

For a whole day I marveled at this place, running my fingers over the knife edges of dark flint chips, trying to fit together thick red pieces of shattered clay jars, biting my lower lip like a child concentrating on a puzzle. I tried to guess the size of whole pots from the curve of the broken pieces: some seemed as small as my two cupped hands, and some maybe as big as a bucket. The sun scorched my neck, reminding me to follow the shade across to the other shelter. Bees hummed at the edge of the water hole, nosing up to the water, their abdomens pulsing like tiny hydraulic pumps; by late afternoon they rimmed the pool completely, a collar of busy lace. Off and on, the lazy hand of a hot breeze shuffled the white leaves of the brittlebush. Once I looked up to see a screaming pair of red-tailed hawks mating in midair, and once a clatter of hooves warned me to hold still. A bighorn ram emerged through the brush, his head bent low under his hefty cornice, and ambled by me with nothing on his mind so much as a cool drink.

How long can a pestle stone lie still in the center of its mortar? That long ago—that recently—people lived here. Here, exactly, and not one valley over, or two, or twelve, because this place had all a person needs: shelter, food, and permanent water. They organized their lives around a catchment basin in a granite boulder, conforming their desires to the earth's charities; they never expected the opposite. The stories I grew up with lauded Moses for striking the rock and bringing forth the bubbling stream. But the stories of the Hohokam—oh, how they must have praised that good rock.

At dusk my friends returned with wonderful tales of the ground they had covered. We camped for the night, refilled our canteens, and hiked back to the land of plumbing and a fair guarantee of longevity. But I treasure my memory of the day I lingered near water and covered no ground. I can't think of a day in my life in which I've had such a clear fix on what it means to be human.

Want is a thing that unfurls unbidden like fungus, opening large upon itself, stopless, filling the sky. But needs, from one day to the next, are few enough to fit in a bucket, with room enough left to rattle like brittlebush in a dry wind.

For each of us—furred, feathered, or skinned alive—the whole earth balances on the single precarious point of our own survival. In the best of times, I hold in mind the need to care for things beyond the self: poetry, humanity, grace. In other times, when it seems difficult merely to survive and be happy about it, the condition of my thought tastes as simple as this: let me be a good animal today. I've spent months at a stretch, even years, with that taste in my mouth, and have found that it serves.

But it seems a wide gulf to cross, from the raw, green passion for survival to the dispassionate, considered state of human grace. How does the animal mind construct a poetry for the modern artifice in which we now reside? Often I feel as disoriented as poor Buster, unprepared for the life that zooms headlong past my line of sight. This clutter of human paraphernalia and counterfeit necessities—what does it have to do with the genuine business of life on earth? It feels strange to me to be living in a box, hiding from the steadying influence of the moon; wearing the hide of a cow, which is supposed to be dyed to match God-knows-what, on my feet; making promises over the telephone about things I will do at a precise hour next year. (I always feel the urge to add, as my grandmother does, "Lord willing and the creeks don't rise!") I find it impossible to think, with a straight face, about what colors ought not to be worn after Labor Day. I can become hysterical over the fact that someone, somewhere, invented a thing called the mushroom scrubber, and that many other people undoubtedly feel they need to possess one. It's completely usual for me to get up in the morning, take a look around, and laugh out loud.

Strangest of all, I am carrying on with all of this in a desert, two thousand miles from my verdant childhood home. I am disembodied. No one here remembers how I was before I grew to my present height. I'm called upon to reinvent my own childhood time and again; in the process, I wonder how I can ever know the truth about who I am. If someone had told me what I was headed for in that little Renault—that I was stowing away in a shell, bound to wake up to an alien life on a persistently foreign shore—I surely would not have done it. But no one warned me. My culture, as I understand it, values independence above all things—in part to ensure a mobile labor force, grease for the machine of a capitalist economy. Our fairy tale commands: Little Pig, go out and seek your fortune! So I did.

Many years ago I read that the Tohono O'odham, who dwell in the deserts near here, traditionally bury the umbilicus of a newborn son or daughter somewhere close to home and plant a tree over it, to hold the child in place. In a sentimental frame of mind, I did the same when my own baby's cord fell off. I'm staring at the tree right now, as I write—a lovely thing grown huge outside my window, home to woodpeckers, its boughs overarching the house, as dissimilar from the sapling I planted seven years ago as my present life is from the tidy future I'd mapped out for us all when my baby was born. She will roam light-years from the base of that tree. I have no doubt of it. I can only hope she's growing as the tree is, absorbing strength and rhythms and a trust in the seasons, so she will always be able to listen for home.

I feel remorse about Buster's monumental relocation; it's a weighty responsibility to have thrown someone else's life into permanent chaos. But as for my own, I can't be sorry I made the trip. Most of what I learned in the old place seems to suffice for the new: if the seasons like Chicago tides come at ridiculous times and I have to plant in September instead of May, and if I have to make up family from scratch, what matters is that I do have sisters and tomato plants, the essential things. Like Buster, I'm inclined to see the material backdrop of my life as mostly immaterial, compared with what moves inside of me. I hold on to my adopted shore, chanting private vows: wherever I am, let me never forget to distinguish *want* from *need*. Let me be a good animal today. Let me dance in the waves of my private tide, the habits of survival and love.

Every one of us is called upon, probably many times, to start a new life. A frightening diagnosis, a marriage, a move, loss of a job or a limb or a loved one, a graduation, bringing a new baby home: it's impossible to think at first how this all will be possible. Eventually, what moves it all forward is the subterranean ebb and flow of being alive among the living.

In my own worst seasons I've come back from the colorless world of despair by forcing myself to look hard, for a long time, at a single glorious thing: a flame of red geranium outside my bedroom window. And then another: my daughter in a yellow dress. And another: the perfect outline of a full, dark sphere behind the crescent moon. Until I learned to be in love with my life again. Like a stroke victim retraining new parts of the brain to grasp lost skills, I have taught myself joy, over and over again.

It's not such a wide gulf to cross, then, from survival to poetry. We hold fast to the old passions of endurance that buckle and creak beneath us, dovetailed, tight as a good wooden boat to carry us onward. And onward full tilt we go, pitched and wrecked and absurdly resolute, driven in spite of everything to make good on a new shore. To be hopeful, to embrace one possibility after another—that is surely the basic instinct. Baser even than hate, the thing with teeth, which can be stilled with a tone of voice or stunned by beauty. If the whole world of the living has to turn on the single point of remaining alive, that pointed endurance is the poetry of hope. The thing with feathers.

What a stroke of luck. What a singular brute feat of outrageous fortune: to be born to citizenship in the Animal Kingdom. We love and we lose, go back to the start and do it right over again. For every heavy forebrain solemnly cataloging the facts of a harsh landscape, there's a rush of intuition behind it crying out: High tide! Time to move out into the glorious debris. Time to take this life for what it is.

MEANINGS AND VALUES

1. In Paragraph 22, Kingsolver says, "It's starting to look as if the most shameful tradition of Western civilization is our need to deny we are animals." In what ways, according to the essay, are we like other animals?
2. What are the superficial ways Buster resembles humans (see Pars. 5, 8, 9, and 10)? What are the important (even profound) similarities (see Pars. 11, 12, 15, 19, 30, and 33)?
3. Paragraphs 15–19 of this essay are devoted to some of the disruptions and problems created by contemporary ways of living. What answers or responses to these problems does the writer offer in Paragraph 19? How do the problems and the responses help unify the essay? (See "Guide to Terms": Unity.)

EXPOSITORY TECHNIQUES

1. At what point in the essay does Kingsolver first make an analogy between the hermit crab and herself?
2. For what purposes does the author raise, and then dismiss, the comparison of hermit crab behaviors and those of humans and other animals in terms of their correspondence to cycles of the moon? (In answering this question, consider both the scientific reasons and those related to the purpose and design of her essay.)
3. The writer divides this essay into four parts (Pars. 1–14, 15–22, 23–28, and 29–37). Explain the content and purpose of each part, and tell why you think she chose to put them in this particular order. (Guide: Purpose.)
4. Discuss how the contrast between "wants" and "needs" at the end of Paragraph 28 serves as a transition to the next paragraph and those that follow. (Guide: Transition.)
5. Discuss how the question "What does it mean, anyway, to be an animal in human clothing?" (Par. 19) acts as a transition both within the paragraph and within the essay as a whole. (Guide: Transition.) Can the passage be considered a rhetorical question? Why? (Guide: Rhetorical Questions.)
6. Kingsolver introduces some briefer analogies in Paragraphs 32 and 36. What are they? Do they undermine or add to the effectiveness of the larger analogy around which the essay is constructed? In what ways? (Guide: Evaluation.)

DICTION AND VOCABULARY

1. Discuss how the repetition of the word "tide" and related words helps to unify this essay. (Guide: Unity.)
2. In many places, Kingsolver mixes styles and kinds of vocabulary (diction) in imaginative ways. Examine Paragraph 11 and note the instances in which she has chosen scientific terms and phrases rather than familiar, less formal wording. What seems to be the reason for her word choices? Do the same for instances of notably informal language. (Guide: Diction; Colloquial Expressions.) What effect does the mixed diction in the paragraph have on its overall style and tone? (Guide: Style/Tone.) How does the mixture serve, or fail to serve, the author's purposes?
3. If you do not know the meaning of any of the following words, look them up in a dictionary: murexes, whelks, (Par. 2); deficit, terrarium, cockleshell (7); preening, ludicrous (8); hyperactivity (10); menses, synchrony, ovulate, lyricists, impetuous (11); crustacean (12); siphoning, briny, ebbed (13); tableau, pantheon, yen, proclivity, furtively (19); deference, anachronisms, vainglories (20); copulation, ostracize (21); topographical (24); lauded (26); longevity (27); dispassionate (30); verdant (31); umbilicus (32).

READ TO WRITE

1. Collaborating: As mentioned in question 3 of Expository Techniques, Kingsolver divides this essay into four parts (Pars. 1–14, 15–22, 23–28, and 29–37). In a group, have each member individually focus on the analogies presented in one of these sections and critique the effectiveness of them. Compare your critiques. Do you all have similar responses to the quality of the analogies as well as the writing overall? Why or why not? Individually, write a short essay answering this question.

2. Considering Audience: The theme of this essay is easy to perceive for a reader who has had major life changes. Kingsolver shares her life shifts openly and relates them directly to Buster's environmental changes. Yet this piece is also effective for people who have experienced little changes in their lives. Why? Point to specific paragraphs to explain your response.
3. Developing an Essay: Comparing your behavior to that of a pet, as Kingsolver does, can have several advantages for you as a writer. You probably observed a pet's behavior in detail over a long period of time more carefully than you observed the activities of any other animal. You have seen the pet react to the same or similar situations that you have encountered. Follow Kingsolver's lead and prepare an essay on human and animal behavior based on your experiences with a pet.

(NOTE: Suggestions for topics requiring development by use of ANALOGY follow.)

ANALOGY

In any normal situation, the analogy is chosen to help explain a theme-idea that already exists—such as those in the first group below. But for classroom training, which is bound to be somewhat artificial, it is permissible to work from the other direction, to develop a theme that fits a preselected analogy-symbol.

1. State a central theme about one of the following general topics or a suitable one of your own, and develop it into a composition by use of an analogy of your own choosing.
   a. A well-organized school system
   b. Starting a new business or other enterprise
   c. The long-range value of programs for underprivileged children
   d. Learning a new skill
   e. The need for cooperation between management and labor
   f. Today's intense competition for success
   g. Dealing with stress
   h. The results of ignorance
2. Select an analogy-symbol from the list below and fashion a theme that it can illustrate. Develop your composition as instructed.
   a. A freeway at commuting time
   b. Building a road through a wilderness
   c. Building a bridge across a river
   d. A merry-go-round
   e. A wedding or a divorce
   f. A car wash
   g. Flood destruction of a levee
   h. The tending of a young orchard
   i. An animal predator stalking prey
   j. A baseball game
   k. A juggling act
   l. An oasis
   m. A duel
   n. An airport

COLLABORATIVE ACTIVITIES

1. Working with a partner, choose a topic from a–h in Exercise 1 on page 248, and decide on an appropriate analogy. One member of the pair should outline the points that need to be made about the theme. The other member should outline comparative (analogous) details. Combine the two outlines, and write a well-developed essay from the combined plan.
2. In groups of three or more, come up with an appropriate analogy for the theme of "adapting to college life in the freshman year." Members should brainstorm to determine the best point of analogy. Once you determine that as a group, each member should provide one point of expansion that fits the analogy, and group members should then write essays of their own drawing on material developed by the group and adding their own ideas and examples.

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Introduces the analogy

Thesis statement

First element of the analogy

Why the comparison is illogical

An inaccurate example

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Second element of the analogy

Questions pointing out why the analogy is faulty

Third element of the analogy

Questions and examples that highlight the usefulness of the analogy

Conclusion— maintains humorous tone of the essay

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Ray / Built by Fire #

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Chang / Like Robinson Crusoe #

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Kingsolver / High Tide in Tucson #

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