

Definition



WHAT IS DEFINITION?

In Lewis Carroll's wise and whimsical tale *Through the Looking Glass*, Humpty Dumpty proclaims, "When I use a word . . . it means just what I choose it to mean—neither more nor less." If the world were filled with characters like Humpty Dumpty, all of them bending the meanings of words to their own purposes and accepting no challenges to their personal definitions, communication would creak to a halt.



Donald Miralle/Getty Images

For language to communicate, words must have accepted definitions. Dictionaries, the source-books for definitions, are compilations of current word meanings, enabling speakers of a language to understand one another. But as you might suspect, things are not as simple as they first appear. We all know that a word like *discipline* has a standard dictionary definition. We also know that parents argue every day over the meaning of *discipline*, as do teachers and school administrators. Moreover, many of the wrenching moral debates of our time are attempts to resolve questions of definition. Much of the controversy over abortion, for instance, centers on what is meant by "life" and when it "begins."

Words can, in short, be slippery. Each of us has unique experiences, attitudes, and values that influence the way we use words and the way we interpret the

words of others. Lewis Carroll may have been exaggerating, but to some degree Humpty Dumpty's attitude exists in all of us.

In addition to the idiosyncratic interpretations we may attach to words, some words shift in meaning over time. The word *pedagogue*, for instance, originally meant "a teacher or leader of children." However, with the passage of time, *pedagogue* has come to mean "a dogmatic, pedantic teacher." And, of course, we invent new words as the need arises. For example, *modem* and *byte* are just two of many new words created in response to recent breakthroughs in computer technology.

Writing a **definition**, then, is no simple task. Primarily, the writer tries to answer basic questions: "What does ___ mean?" and "What is the special or true nature of ___?" The word to be defined may be an object, a concept, a type of person, a place, or a phenomenon. Potential subjects might be the "user-friendly" computer, animal rights, a model teacher, cabin fever. As you will see, there are various strategies for expanding definitions far beyond the single-word synonyms or brief phrases that dictionaries provide.

HOW DEFINITION FITS YOUR PURPOSE AND AUDIENCE

Many times, short-answer exam questions call for definitions. Consider the following examples:

Define the term *mob psychology*.

What is the difference between a metaphor and a simile?

How would you explain what a religious cult is?

In such cases, a good response might involve a definition of several sentences or several paragraphs.

Other times, definition may be used in an essay organized mainly around another pattern of development. In this situation, all that's needed is a brief formal definition or a short definition given in your own words. For instance, a *process analysis* showing readers how computers have revolutionized the typical business office might start with a textbook definition of the term *artificial intelligence*. In an *argumentation-persuasion* paper urging students to support recent efforts to abolish fraternities and sororities, you could refer to the definitions of *blackballing* and *hazing* found in the university handbook. Or your personal definition of *hero* could be the starting point for a *causal analysis* that explains to readers why there are few real heroes in today's world.

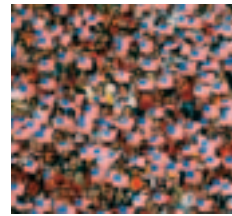
But the most complex use of definition, and the one we focus on in this chapter, involves exploring a subject through an **extended definition**. Extended definition allows you to apply a personal interpretation to a word, to propose a revisionist view of a commonly accepted meaning, to analyze words representing complex or controversial issues. *Pornography*, *gun control*, *secular humanism*, and *right to privacy* would be good subjects for extended definition; each is multifaceted, often misunderstood,



and fraught with emotion. *Junk food, anger, leadership, and anxiety* could also make interesting subjects, especially if the extended definition helped readers develop a new understanding of the word. You might, for example, define *anxiety* not as a negative state but as a positive force that propels us to take action.

An extended definition may run several paragraphs or a few pages. Keep in mind, however, that some definitions require a chapter or even an entire book to develop. Theologians, philosophers, and pop psychologists have devoted entire texts to concepts like *evil* and *love*.

At this point, you have a good sense of the way writers use definition to achieve their purpose and to connect with their readers. Now take a moment to look closely at the photograph at the beginning of this chapter. Imagine you're writing an essay, accompanied by the photo, for publication in your campus newspaper. Your purpose is to explain what it means to be an American in the twenty-first century. Jot down some ideas you might include in your *definition*.



PREWRITING STRATEGIES

The following checklist shows how you can apply to definition some of the prewriting techniques discussed in Chapter 2.



DEFINITION: A PREWRITING CHECKLIST

Choose Something to Define

- Is there something you're especially qualified to define? What about that thing do you hope to convey?
- Do any of your journal entries reflect an attempt to pinpoint something's essence: courage, pornography, a well-rounded education?
- Will you define a concept (energy), an object (the microchip), a type of person (the bigot), a place (the desert), a phenomenon (the rise in volunteerism), a complex or controversial issue (euthanasia)?
- Can your topic be meaningfully defined within the space and time allotted?

Identify Your Purpose, Audience, Tone, and Point of View

- Do you want simply to inform and explain—that is, to make meaning clear? Or do you want to persuade readers to accept your understanding of a term? Do you want to do both?

- Will you offer a personal interpretation? Propose a revised meaning? Explain an obscure or technical term? Discuss shifts in meaning over time? Distinguish one term from another, closely related term? Show conflicts in definition?
- Are your readers apt to be open to your interpretation of a term? What information will they need to understand your definition and to feel that it is correct and insightful?
- What tone and point of view will make your readers receptive to your definition?

Use Prewriting to Develop the Definition

- How might mapping, brainstorming, freewriting, and speaking with others generate material that develops your definition?
- Which of the prewriting questions below would generate the most details and, therefore, suggest patterns for developing your definition?

<i>Question</i>	<i>Pattern</i>
How does X look, taste, smell, feel, and sound?	Description
What does X do? When? Where?	Narration
What are some typical instances of X?	Illustration
What are X's component parts? What different forms can X take?	Division-classification
How does X work?	Process analysis
What is X like or unlike?	Comparison-contrast
What leads to X? What are X's consequences?	Cause-effect

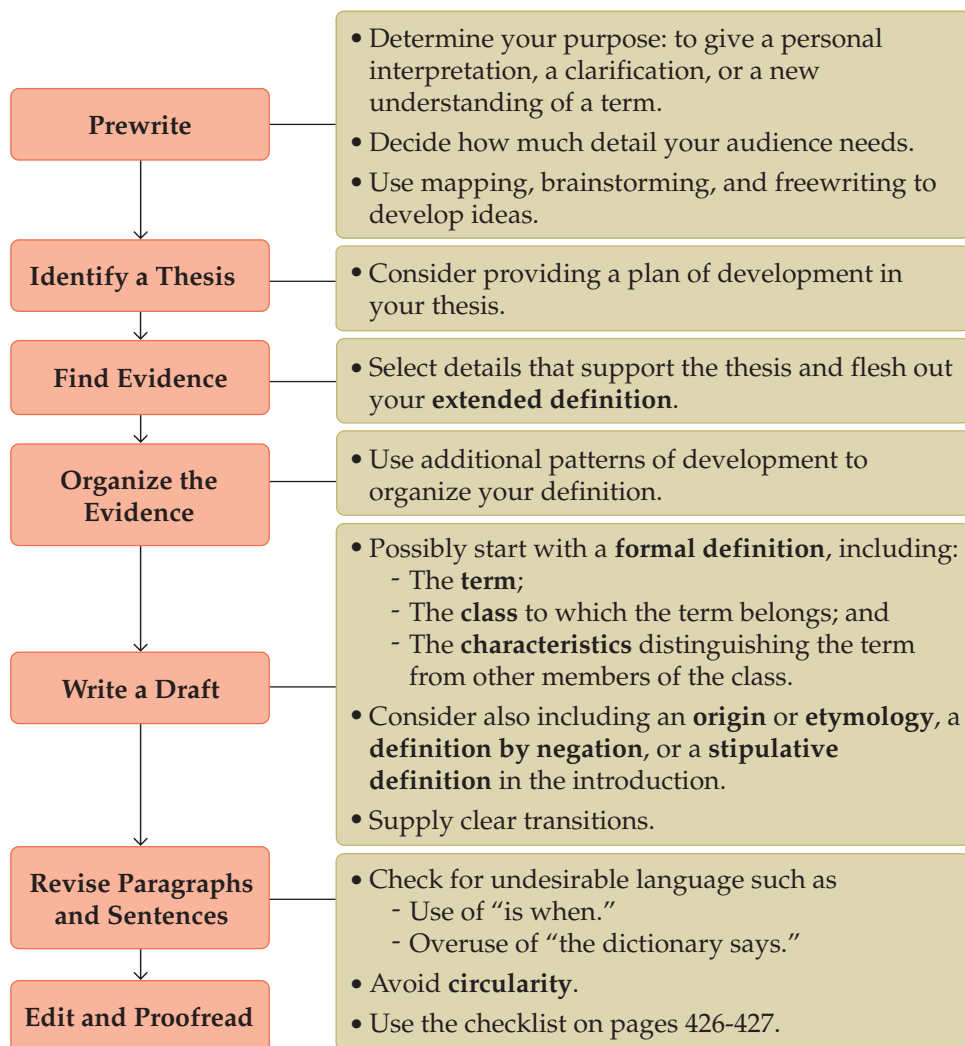
STRATEGIES FOR USING DEFINITION IN AN ESSAY

After prewriting, you're ready to draft your essay. The following suggestions and Figure 17.1 (on page 423) will be helpful whether you use definition as a dominant or supportive pattern of development.

1. **Stay focused on the essay's purpose, audience, and tone.** Since your purpose for writing an extended definition shapes the entire paper, you need to keep that objective in mind when developing your definition. Suppose you decide to write an essay defining *jazz*. The essay could be purely *informative* and discuss the origins of jazz, its characteristic tonal patterns, and some of the great jazz musicians of the past. Or the essay could move beyond pure information and take on a *persuasive* edge. It might, for example, argue that jazz is the only contemporary form of music worth considering seriously.

Just as your purpose in writing will vary, so will your tone. A strictly informative definition will generally assume a detached, objective tone

FIGURE 17.1
Development Diagram: Writing a Definition Essay



(“Apathy is an emotional state characterized by listlessness and indifference”). By way of contrast, a definition essay with a persuasive slant might be urgent in tone (“To combat student apathy, we must design programs that engage students in campus life”), or it might take a satiric approach (“An apathetic stance is a wise choice for any thinking student”).

As you write, keep thinking about your audience as well. Not only do your readers determine what terms need to be defined (and in how much detail), but they also keep you focused on the essay’s purpose and tone. For instance,

you probably wouldn't write a serious, informative piece for the college newspaper about the "mystery meat" served in the campus cafeteria. Instead, you would adopt a light tone as you defined the culinary horror and might even make a persuasive pitch about improving the food prepared on campus.

2. **Formulate an effective definition.** A definition essay sometimes begins with a brief **formal definition**—the dictionary's, a textbook's, or the writer's—and then expands that initial definition with supporting details. Formal definitions are traditionally worded as three-part statements, including (1) the **term**, (2) the **class** to which the term belongs, and (3) the **characteristics** that distinguish the term from other members of its class. Consider these examples of formal definition:

Term	Class	Characteristics
The peregrine falcon,	an endangered bird,	is the world's fastest flyer.
A bodice-ripper	is a paperback book	that deals with highly charged romance in exotic places and faraway times.
Back to basics	is a trend in education	that emphasizes skill mastery through rote learning.

A definition that meets these three guidelines—term, class, and characteristics—will clarify what your subject *is* and what it *is not*. These guidelines also establish the boundaries or scope of your definition. For example, defining *back to basics* as "a trend that emphasizes rote . . . learning" signals a certain boundary; it lets readers know that other educational trends (such as those that emphasize children's social or emotional development) won't be part of the essay's definition.

Because they are formulaic, formal definitions tend to be dull. For this reason, it's best to reserve them for clarifying potentially confusing words—perhaps words with multiple meanings. For example, the term *the West* can refer to the western section of the United States, to the United States and its non-Communist allies (as in the "Western world"), or to the entire Western Hemisphere. Before discussing the West, then, you would need to provide a formal definition that clarifies your use of the term. Highly specialized or technical terms may also require clarification. Few readers are likely to feel confident about their understanding of the term *cognitive dissonance* unless you supply them with a formal definition: "a conflict of thoughts arising when two or more ideas do not go together."

If you decide to include a formal definition in your essay, avoid tired openings like "the dictionary says" or "according to *Webster's*." Such weak starts lack imagination. You should also keep in mind that a strict dictionary definition may actually confuse readers. Suppose you're writing a paper on the way people tend to absorb their ideas and values from the media. Liking this automatic response to the process of osmosis, you decide to open the paper with a dictionary definition. If you write, "Osmosis is the tendency of a solvent to disperse through a semipermeable membrane into a more

concentrated medium,” readers are apt to be baffled. *Remember:* The purpose of a definition is to clarify meaning, not obscure it.

You should also stay clear of ungrammatical “is when” definitions: “Blind ambition is when you want to get ahead, no matter how much other people are hurt.” Instead, write “Blind ambition is wanting to get ahead, no matter how much other people are hurt.” A final pitfall to avoid in writing formal definitions is **circularity**, saying the same thing twice and therefore defining nothing: “A campus tribunal is a tribunal composed of various members of the university community.” Circular definitions like this often repeat the term being defined (*tribunal*) or use words having the same meaning (*campus; university community*). In this case, we learn nothing about what a campus tribunal is; the writer says only that “X is X.”

3. **Develop the extended definition.** You can use the patterns of development when formulating an extended definition. Description, narration, process analysis, comparison-contrast, or any of the other patterns discussed in this book may be drawn upon—alone or in combination. Imagine you’re planning to write an extended definition of *robotics*. You might develop the term by providing *examples* of the way robots are currently being used in scientific research; by *comparing* and *contrasting* human and robot capabilities; or by *classifying* robots, starting with the most basic and moving to the most advanced or futuristic models. (To deepen your understanding of which patterns to use when developing a particular extended definition, take a moment to review the last item in this chapter’s Prewriting Checklist on pages 421–422.)
4. **Organize the material that develops the definition.** If you use a single pattern to develop the extended definition, apply the principles of organization suited to that pattern, as described in the appropriate chapter of this book. Assume that you’re defining *fad* by means of *process analysis*. You might organize your paragraphs according to the steps in the process: a fad’s slow start as something avant-garde or eccentric; its wildfire acceptance by the general public; the fad’s demise as it becomes familiar or tiresome. If you want to define *character* by means of a single *narration*, you would probably organize paragraphs chronologically. In a definition essay using several methods of development, you should devote separate paragraphs to each pattern. A definition of *relaxation*, for instance, might start with a paragraph that *narrates* a particularly relaxing day; then it might move to a paragraph that presents several *examples* of people who find it difficult to unwind; finally, it might end with a paragraph that explains a *process* for relaxing the mind and body.
5. **Write an effective introduction.** It can be helpful to provide—near the beginning of a definition essay—a brief formal definition of the term you’re going to develop in the rest of the paper. Beyond this basic element, the introduction might include a number of other features. You may explain the *origin* of the term being defined: “*Acid* rock is a term first coined in the 1960s to describe music that was written or listened to under the influence of the drug LSD.”



Similarly, you could explain the *etymology*, or linguistic origin, of the key word that focuses the paper: “The term *vigilantism* is derived from a Latin word meaning ‘to watch and be awake.’”

You may also use the introduction to clarify what your subject is *not*. Such **definition by negation** can be an effective strategy at a paper’s beginning, especially if readers don’t share your view of the subject. In such a case, you might write something like this: “The gorilla, far from being the vicious killer of jungle movies and popular imagination, is a sedentary, gentle creature living in a closely knit family group.” Such a statement provides the special focus for your essay and signals some of the misconceptions or fallacies soon to be discussed.

In addition, you may include in the introduction a **stipulative definition**, one that puts special restrictions on a term: “Strictly defined, a mall refers to a one- or two-story enclosed building containing a variety of retail shops and at least two large anchor stores. Highway-strip shopping centers or downtown centers cannot be considered true malls.” When a term has multiple meanings, or when its meaning has become fuzzy through misuse, a stipulative definition sets the record straight right at the start, so that readers know exactly what is, and is not, being defined.

Finally, the introduction may end with a *plan of development* that indicates how the essay will unfold. A student who returned to school after having raised a family decided to write a paper defining the mid-life crisis that had led to her enrollment in college. After providing a brief formal definition of *mid-life crisis*, the student rounded off her introduction with this sentence: “Such a mid-life crisis often starts with vague misgivings, turns into depression, and ends with a significant change in lifestyle.”

REVISION STRATEGIES

Once you have a draft of the essay, you’re ready to revise. The following checklist will help you and those giving you feedback apply to definition some of the revision techniques discussed in Chapters 7 and 8.



DEFINITION: A REVISION/PEER REVIEW CHECKLIST

Revise Overall Meaning and Structure

- Is the essay’s purpose informative, persuasive, or both?
- Is the term being defined clearly distinguished from similar terms?
- Where does a circular definition cloud meaning? Where are technical, nonstandard, or ambiguous terms a source of confusion?
- Where would a word’s historical or linguistic origin clarify meaning? Where would a formal definition, stipulative definition, or definition by negation help?

- Which patterns of development are used to develop the definition? How do these help the essay achieve its purpose?
- If the essay uses only one pattern, is the essay's method of organization suited to that pattern (step-by-step for process analysis, chronological for narration, and so on)?
- Where could a dry formal definition be deleted without sacrificing overall clarity?

Revise Paragraph Development

- If the essay uses several patterns of development, where would separate paragraphs for different patterns be appropriate?
- Which paragraphs are flat or unconvincing? How could they be made more compelling?

Revise Sentences and Words

- Which sentences and words are inconsistent with the essay's tone?
- Where should overused phrases, like "the dictionary says" and "according to Webster's," be replaced by more original wording?
- Have "is when" definitions been avoided?

STUDENT ESSAY: FROM PREWRITING THROUGH REVISION

The student essay that follows was written by Laura Chen in response to this assignment:

In "Entropy," K. C. Cole takes a scientific term from physics and gives it a broader definition and a wider application. Choose another specialized term and define it in such a way that you reveal something significant about contemporary life.

Before writing her essay, Laura sat down at a computer and *brainstormed* material on the subject she decided to write about: inertia in everyday life. Later on, when she started shaping this material, she jotted down notes in the margin, starred important ideas, crossed out an item, added other ideas, drew connecting arrows, and used numbers and letters to sequence points. In the process, the essay's underlying structure began to emerge so clearly that an outline seemed unnecessary; Laura felt she could move directly from her brainstormed material to a first draft. Laura's original brainstormed list is reprinted on page 428. The handwritten marks indicate her later efforts to organize the preliminary material.

Now read Laura's paper, "Physics in Everyday Life," noting the similarities and differences between her prewriting and final essay. You'll see, for example,

that Laura's decision to discuss national inertia *after* individual inertia makes the essay's sequence of points more emphatic. Similarly, by moving the mention of gravity to the essay's end, Laura creates a satisfying symmetry: The paper now opens and closes with principles of physics. As you read the essay, also consider how well it applies the principles of definition discussed in this chapter. (The commentary that follows the paper will help you look at Laura's essay more closely and will give you some sense of how she went about revising her first draft.)

Brainstorming

Entropy--an imp. term in physics. (Put in conclusion? Just like gravity.)

Formal definition
Boulder sitting or rolling

*③ National inertia (save broadest for last)

3b We accept pollution

3a Accept shoddy products

Accept growing homelessness

3c Go ahead with genetic engineering even though uncomfortable

3d Keep producing nuclear arms

3e Watch too much TV, despite all the reports

1c Racial discrimination remains a problem Move to section on the individual

① Individual inertia, too

We resist change

1a Vote the same way all the time

1b Need jolts to change (a perfect teenage daughter becomes pregnant) Add example here

② But on TV--no inertia

2a Soap operas, commercials--everyone changes easily give specifics

2b In real life--wear same hairstyle, use same products, wars and national problems drag on

Physics in Everyday Life

by Laura Chen

- 1 A boulder sits on a mountainside for a thousand years. The boulder will remain there forever unless an outside force intervenes. Suppose a force does affect the boulder—an earthquake, for instance. Once the boulder begins to thunder down the mountain, it will remain in motion and head in one direction only--downhill--until another force interrupts its progress. If the boulder tumbles into a gorge, it will finally come to rest as gravity anchors it to the earth once more. In both cases, the boulder is exhibiting the physical principle of inertia: the tendency of matter to remain at rest or, if moving, to keep moving in one direction unless affected by an outside force. Inertia, an important factor in the world of physics, also plays a crucial role in the human world. Inertia affects our individual lives as well as the direction taken by society as a whole.
- 2 Inertia often influences our value systems and personal growth. Inertia is at work, for example, when people cling to certain behaviors and views. Like the boulder firmly fixed to the mountain, most people are set in their ways. Without thinking, they vote Republican or Democratic because they have always voted that way. They regard with suspicion a couple having no children, simply because everyone else in the neighborhood has a large family. It is only when an outside force--a jolt of some sort--occurs that people change their views. A white American couple may think little about racial discrimination, for instance, until they adopt an Asian child and must comfort her when classmates tease her because she looks different. Parents may consider promiscuous any unmarried girl who has a baby until their 17-year-old honors student confesses that she is pregnant. Personal jolts like these force people to think, perhaps for the first time, about issues that now affect them directly.
- 3 To illustrate how inertia governs our lives, it is helpful to compare the world of television with real life. On TV, inertia does not exist. Television shows and commercials show people making all kinds of drastic changes. They switch brands of coffee or try a new hair color with no hesitation. In one car
- Introduction
- Formal definition
- Thesis
- Plan of development
- Topic sentence
- Start of a series of causes and effects
- Topic sentence
- Start of a series of contrasts

commercial, an ambitious young accountant abandons her career with a flourish and is seen driving off into the sunset as she heads for a small cabin by the sea to write poetry. In a soap opera, a character may progress from homemaker to hooker to nun in a single year. But in real life, inertia rules. People tend to stay where they are, to keep their jobs, to be loyal to products. A second major difference between television and real life is that, on television, everyone takes prompt and dramatic action to solve problems. The construction worker with a thudding headache is pain-free at the end of the sixty-second commercial; the police catch the murderer within an hour; the family learns to cope with their son's life-threatening drug addiction by the time the made-for-TV movie ends at eleven. But in the real world, inertia persists, so that few problems are solved neatly or quickly. Illnesses drag on, few crimes are solved, and family conflicts last for years.

Topic sentence —————> Inertia is, most importantly, a force at work in the life of 4

Start of a series of examples —————> our nation. Again, inertia is two-sided. It keeps us from moving and, once we move, it keeps us pointed in one direction. We find ourselves mired in a certain path, accepting the inferior, even the dangerous. We settle for toys that break, winter coats with no warmth, and rivers clogged with pollution. Inertia also compels our nation to keep moving in one direction—despite the uncomfortable suspicion that it is the wrong direction. We are not sure if manipulating genes is a good idea, yet we continue to fund scientific projects in genetic engineering. More than fifty years ago, we were shaken when we saw the devastation caused by an atomic bomb. But we went on to develop weapons hundreds of times more destructive. Although warned that excessive television viewing may be harmful, we continue to watch hours of television each day.

Conclusion —————> We have learned to defy gravity, one of the basic laws of 5 physics; we fly high above the earth, even float in outer space. But most of us have not learned to defy inertia. Those special individuals who are able to act when everyone else seems paralyzed are rare. But the fact that such people do exist means that inertia is not all-powerful. If we use our reasoning ability and our creativity, we can conquer inertia, just as we have conquered gravity.

Commentary

Introduction

As the title of her essay suggests, Laura has taken a scientific term (*inertia*) from a specialized field and drawn on the term to help explain some everyday phenomena. Using the *simple-to-complex* approach to structure the introduction, she opens with a vivid *descriptive* example of inertia. This description is then followed by a *formal definition* of inertia: “the tendency of matter to remain at rest or, if moving, to keep moving in one direction unless affected by an outside force.” Laura wisely begins the paper with the easy-to-understand description rather than with the more-difficult-to-grasp scientific definition. Had the order been reversed, the essay would not have gotten off to nearly as effective a start. She then ends her introductory paragraph with a *thesis*, “Inertia, an important factor in the world of physics, also plays a crucial role in the human world,” and with a *plan of development*, “Inertia affects our individual lives as well as the direction taken by society as a whole.”

Organization

To support her definition of inertia and her belief that it can rule our lives, Laura generates a number of compelling examples. She organizes these examples by grouping them into three major points, each point signaled by a *topic sentence* that opens each of the essay’s three supporting paragraphs (2–4).

A definite organizational strategy determines the sequence of Laura’s three central points. The essay moves from the way inertia affects the individual to the way it affects the nation. The phrase “most importantly” at the beginning of the fourth paragraph indicates that Laura has arranged her points emphatically, believing that inertia’s impact on society is most critical.

A Problem with Organization and a Weak Example

When reading the fourth paragraph, you might have noticed that Laura’s examples aren’t sequenced as effectively as they could be. To show that we, as a nation, tend to keep moving in the same direction, Laura discusses our ongoing uneasiness about genetic engineering, nuclear arms, and excessive television viewing. The point about nuclear weapons is most significant, yet it gets lost in the middle. The paragraph would be stronger if it ended with the point about nuclear arms. Moreover, the example about excessive television viewing doesn’t belong in this paragraph since, at best, it has limited bearing on the issue being discussed.

Combining Patterns of Development

In addition to using numerous *examples* to illustrate her points, Laura draws on several other patterns of development to show that inertia can be a powerful force. In the second and fourth paragraphs, she uses *causal analysis* to explain how inertia can paralyze people and nations. The second paragraph indicates that only “an outside force—a jolt of some sort—” can motivate inert people to



change. To support this view, Laura provides two examples of parents who experience such jolts. Similarly, in the fourth paragraph, she contends that inertia causes the persistence of specific national problems: shoddy consumer goods and environmental pollution.

Another pattern, *comparison-contrast*, is used in the third paragraph to highlight the differences between television and real life: on television, people zoom into action, but in everyday life, people tend to stay put and muddle through. The essay also contains a distinct element of *argumentation-persuasion* since Laura clearly wants readers to accept her definition of inertia and her view that it often governs human behavior.

Conclusion

Laura's *conclusion* rounds off the essay nicely and brings it to a satisfying close. Laura refers to another law of physics, one with which we are all familiar—gravity. By creating an *analogy* between gravity and inertia, she suggests that our ability to defy gravity should encourage us to defy inertia. The analogy enlarges the scope of the essay; it allows Laura to reach out to her readers by challenging them to action. Such a challenge is, of course, appropriate in a definition essay having a persuasive bent.

Revising the First Draft

When it was time to rework her essay, Laura began by reading her paper out loud. Then, referring to the revision checklist on pages 426–427, she noted in the margin of her draft the problems she detected, numbering them in order of importance. After reviewing her notes, she started to revise in earnest, paying special attention to her third paragraph. The first draft of that paragraph, together with her annotations, is reprinted here:

Original Version of the Third Paragraph

① Paragraph rambles

④ First two sentences awkward

⑦ Make more specific

③ Delete part about annoyed wives and hairstyles

The ordinary actions of daily life are, in part, determined by inertia. To understand this, it is helpful to compare the world of television with real life, for, in the TV-land of ads and entertainment, inertia does not exist. For example, on television, people are often shown making all kinds of drastic changes. They switch brands of coffee or try a new hair color with no hesitation. In one car commercial, a young accountant leaves her career and sets off for a cabin by the sea to write poetry. In a soap opera, a character may progress from homemaker to hooker to nun in a single year. In contrast, inertia rules in real life. People tend to stay where they are, to keep their jobs, to be loyal to products (wives get annoyed if a husband brings home the wrong brand or color of bathroom tissue from the market). Middle-aged people wear the hairstyles

or makeup that suited them in high school. A second major difference between television and real life is that, on TV, everyone takes prompt and dramatic action to solve problems. (A woman finds the solution to dull clothes) at the end of a commercial; the police catch the murderer within an hour; the family learns to cope with a son's disturbing lifestyle by the time the movie is over. In contrast, the law of real-life inertia means that few problems are solved neatly or quickly. Things, once started, tend to stay as they are. Few crimes are actually solved. Medical problems are not easily diagnosed. Messy wars in foreign countries seem endless. National problems are identified, but Congress does not pass legislation to solve them.

- ⑤ Trite—replace
- ⑥ Point about life-style not clear
- ② Last two sentences don't belong

After rereading her draft, Laura realized that her third paragraph rambled. To give it more focus, she removed the last two sentences (“Messy wars in foreign countries seem endless,” and “National problems are identified, but Congress does not pass legislation . . .”) because they referred to national affairs but were located in a section focusing on the individual. Further, she eliminated two flat, unconvincing examples: wives who get annoyed when their husbands bring home the wrong brand of bathroom tissue and middle-aged people whose hairstyles and makeup are outdated. Condensing the two disjointed sentences that originally opened the paragraph also helped tighten this section of the essay. Note how much crisper the revised sentences are: “To illustrate how inertia governs our lives, it is helpful to compare the world of television with real life. On TV, inertia does not exist.”

Laura also worked to make the details and the language in the paragraph more specific and vigorous. The vague sentence, “A woman finds the solution to dull clothes at the end of the commercial,” is replaced by the more dramatic, “The construction worker with a thudding headache is pain-free at the end of the sixty-second commercial.” Similarly, Laura changed a “son's disturbing lifestyle” to a “son's life-threatening drug addiction”; “by the time the movie is over” became “by the time the made-for-TV movie ends at eleven”; and “a young accountant leaves her career and sets off for a cabin by the sea to write poetry” was changed to “an ambitious young accountant abandons her career with a flourish and is seen driving off into the sunset as she heads for a small cabin by the sea to write poetry.”

After making these changes, Laura decided to round off the paragraph with a powerful summary statement highlighting how real life differs from television: “Illnesses drag on, few crimes are solved, and family conflicts last for years.”

These third-paragraph revisions are similar to those that Laura made elsewhere in her first draft. Her astute changes enabled her to turn an already effective paper into an especially thoughtful analysis of human behavior.



ACTIVITIES: DEFINITION

Prewriting Activities

1. Imagine you're writing two essays: One explains an effective strategy for registering a complaint; the other contrasts the styles of two stand-up comics. Jot down ways you might use definition in each essay.
2. Use the prewriting questions for the patterns of development on pages 421–422 to generate material for an extended definition of *one* of the terms that follow. Then answer these questions about your prewriting material: What thesis does the prewriting suggest? Which pattern(s) yielded the most supporting material? In what order would you present this support when writing an essay?
 - a. popularity
 - b. cruelty
 - c. “dork”
 - d. self-esteem
 - e. “wimp”
 - f. loneliness
3. Select a term whose meaning varies from person to person or one for which you have a personal definition. Some possibilities include:

success	femininity	a liberal
patriotism	affirmative action	a housewife
individuality	pornography	intelligence

Brainstorm with others to identify variations in the term's meaning. Then examine your prewriting material. What thesis comes to mind? If you were writing an essay, would your purpose be informative, persuasive, or both? Finally, prepare a scratch list of the points you might cover.

Revising Activities

4. Explain why each of the following is an effective or ineffective definition. Rewrite those you consider ineffective.
 - a. *Passive aggression* is when people show their aggression passively.
 - b. A *terrorist* tries to terrorize people.
 - c. Being *assertive* means knowing how to express your wishes and goals in a positive, noncombative way.
 - d. *Pop music* refers to music that is popular.
 - e. *Loyalty* is when someone stays by another person during difficult times.

5. The following introductory paragraph is from the first draft of an essay contrasting walking and running as techniques for reducing tension. Although intended to be a definition paragraph, it actually doesn't tell us anything we don't already know. It also relies on the old-hat "Webster's says." Rewrite the paragraph so it is more imaginative. You might use a series of anecdotes or one extended example to define *tension* and introduce the essay's thesis more gracefully.

According to Webster's, tension is "mental or nervous strain, often accompanied by muscular tightness or tautness." Everyone feels tense at one time or another. It may occur when there's a deadline to meet. Or it could be caused by the stress of trying to fulfill academic, athletic, or social goals. Sometimes it comes from criticism by family, bosses, or teachers. Such tension puts wear and tear on our bodies and on our emotional well-being. Although some people run to relieve tension, research has found that walking is a more effective tension reducer.

PROFESSIONAL SELECTIONS: DEFINITION



K. C. COLE

K. C. Cole (1946–) has contributed articles on science to numerous national publications and has written a regular column for *Discovery* magazine. Her essays are collected in *Sympathetic Vibrations: Reflections on Physics as a Way of Life* (1985). She has written several books, including *Facets of Light: Color Images and Things That Glow in the Dark* (1980), *Order in the Universe: The Shape of Relative Motion* (1986), *The Universe and the Teacup* (1998), *The Hole in the Universe* (2000), and *Mind Over Matter* (2003). She is currently a science writer and editor at the *L. A. Times*. The selection that follows first appeared as a "Hers" column in *The New York Times* (1982).

Please note the essay structure diagram that appears following this selection (Figure 17.2 on page 438).

Pre-Reading Journal Entry

Do you consider yourself an orderly or a disorderly person? What about those around you? What are the benefits and the drawbacks of being orderly? Of being disorderly? Use your journal to reflect on these questions.

ENTROPY

It was about two months ago when I realized that entropy was getting the better of me. On the same day my car broke down (again), my refrigerator conked out and I learned that I needed root-canal work in my right rear tooth. The windows in the bedroom were still leaking every time it rained and my son's baby sitter was still failing to show up every time I really needed her. My hair was turning gray and my typewriter was wearing out. The house needed paint and I needed glasses. My son's sneakers were developing holes and I was developing a deep sense of futility.

After all, what was the point of spending half of Saturday at the Laundromat if the clothes were dirty all over again the following Friday?

Disorder, alas, is the natural order of things in the universe. There is even a precise measure of the amount of disorder, called entropy. Unlike almost every other physical property (motion, gravity, energy), entropy does not work both ways. It can only increase. Once it's created it can never be destroyed. The road to disorder is a one-way street.

Because of its unnerving irreversibility, entropy has been called the arrow of time. We all understand this instinctively. Children's rooms, left on their own, tend to get messy, not neat. Wood rots, metal rusts, people wrinkle and flowers wither. Even mountains wear down; even the nuclei of atoms decay. In the city we see entropy in the rundown subways and worn-out sidewalks and torn-down buildings, in the increasing disorder of our lives. We know, without asking, what is old. If we were suddenly to see the paint jump back on an old building, we would know that something was wrong. If we saw an egg unscramble itself and jump back into its shell, we would laugh in the same way we laugh at a movie run backward.

Entropy is no laughing matter, however, because with every increase in entropy energy is wasted and opportunity is lost. Water flowing down a mountainside can be made to do some useful work on its way. But once all the water is at the same level it can work no more. That is entropy. When my refrigerator was working, it kept all the cold air ordered in one part of the kitchen and warmer air in another. Once it broke down the warm and cold mixed into a lukewarm mess that allowed my butter to melt, my milk to rot and my frozen vegetables to decay.

Of course the energy is not really lost, but it has defused and dissipated into a chaotic cauldron of randomness that can do us no possible good. Entropy is chaos. It is loss of purpose.

People are often upset by the entropy they seem to see in the haphazardness of their own lives. Buffeted about like so many molecules in my tepid kitchen, they feel that they have lost their sense of direction, that they are wasting youth and opportunity at every turn. It is easy to see entropy in marriages, when the partners are too preoccupied to patch small things up, almost guaranteeing that they will fall apart. There is much entropy in the state of our country, in the relationships between nations—lost opportunities to stop the avalanche of disorders that seems ready to swallow us all.

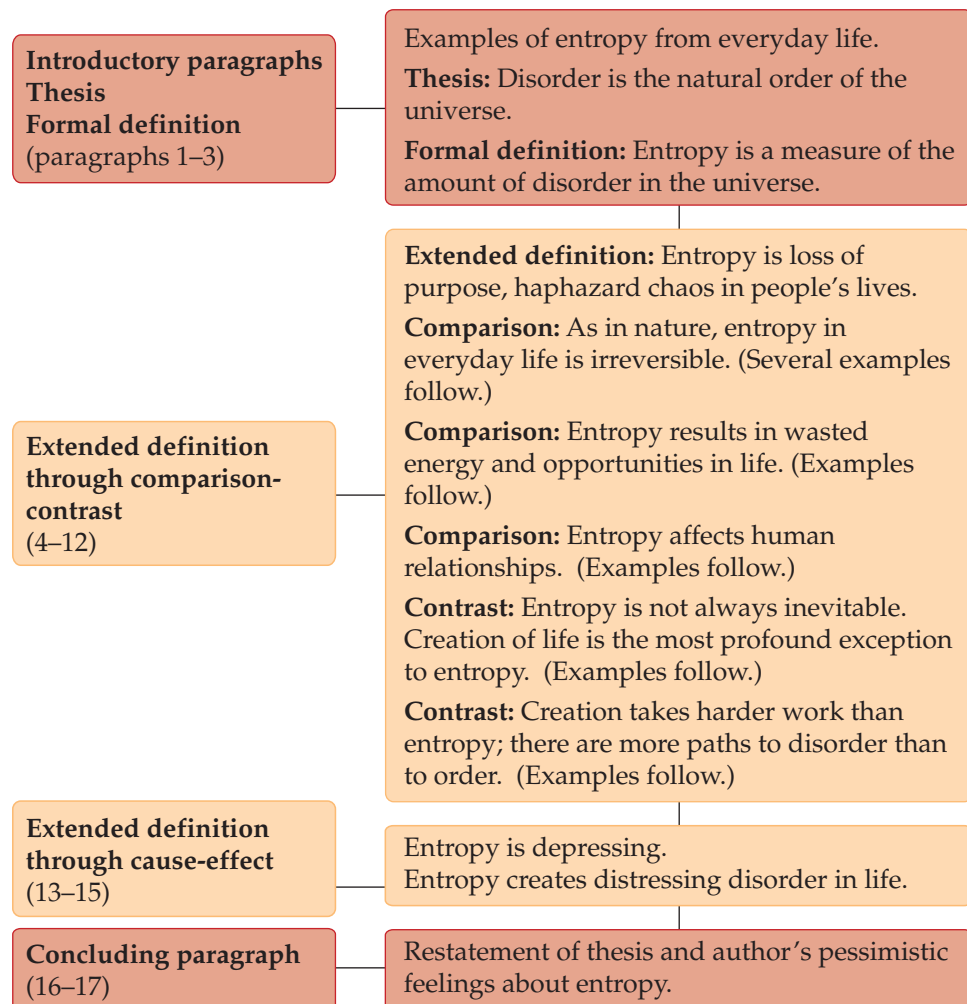
Entropy is not inevitable everywhere, however. Crystals and snowflakes and galaxies are islands of incredibly ordered beauty in the midst of random events. If it was not

for exceptions to entropy, the sky would be black and we would be able to see where the stars spend their days; it is only because air molecules in the atmosphere cluster in ordered groups that the sky is blue.

- 9 The most profound exception to entropy is the creation of life. A seed soaks up some soil and some carbon and some sunshine and some water and arranges it into a rose. A seed in the womb takes some oxygen and pizza and milk and transforms it into a baby.
- 10 The catch is that it takes a lot of energy to produce a baby. It also takes energy to make a tree. The road to disorder is all downhill but the road to creation takes work. Though combating entropy is possible, it also has its price. That's why it seems so hard to get ourselves together, so easy to let ourselves fall apart.
- 11 Worse, creating order in one corner of the universe always creates more disorder somewhere else. We create ordered energy from oil and coal at the price of the entropy of smog.
- 12 I recently took up playing the flute again after an absence of several months. As the uneven vibrations screeched through the house, my son covered his ears and said, "Mom, what's wrong with your flute?" Nothing was wrong with my flute, of course. It was my ability to play it that had atrophied, or entropied, as the case may be. The only way to stop that process was to practice every day, and sure enough my tone improved, though only at the price of constant work. Like anything else, abilities deteriorate when we stop applying our energies to them.
- 13 That's why entropy is depressing. It seems as if just breaking even is an uphill fight. There's a good reason that this should be so. The mechanics of entropy are a matter of chance. Take any ice-cold air molecule milling around my kitchen. The chances that it will wander in the direction of my refrigerator at any point are exactly 50–50. The chances that it will wander away from my refrigerator are also 50–50. But take billions of warm and cold molecules mixed together, and the chances that all the cold ones will wander toward the refrigerator and all the warm ones will wander away from it are virtually nil.
- 14 Entropy wins not because order is impossible but because there are always so many more paths toward disorder than toward order. There are so many more different ways to do a sloppy job than a good one, so many more ways to make a mess than to clean it up. The obstacles and accidents in our lives almost guarantee that constant collisions will bounce us on to random paths, get us off the track. Disorder is the path of least resistance, the easy but not the inevitable road.
- 15 Like so many others, I am distressed by the entropy I see around me today. I am afraid of the randomness of international events, of the lack of common purpose in the world; I am terrified that it will lead into the ultimate entropy of nuclear war. I am upset that I could not in the city where I live send my child to a public school; that people are unemployed and inflation is out of control; that tensions between sexes and races seem to be increasing again; that relationships everywhere seem to be falling apart.
- 16 Social institutions—like atoms and stars—decay if energy is not added to keep them ordered. Friendships and families and economies all fall apart unless we constantly make an effort to keep them working and well oiled. And far too few people, it seems to me, are willing to contribute consistently to those efforts.

Of course, the more complex things are, the harder it is. If there were only a dozen or so air molecules in my kitchen, it would be likely—if I waited a year or so—that at some point the six coldest ones would congregate inside the freezer. But the more factors in the equation—the more players in the game—the less likely it is that their paths will coincide in an orderly way. The more pieces in the puzzle, the harder it is to put back together once order is disturbed. “Irreversibility,” said a physicist, “is the price we pay for complexity.”

FIGURE 17.2
Essay Structure Diagram: “Entropy” by K. C. Cole



Questions for Close Reading

1. What is the selection's thesis? Locate the sentence(s) in which Cole states her main idea. If she doesn't state the thesis explicitly, express it in your own words.
2. How does entropy differ from the other properties of the physical world? Is the image "the arrow of time" helpful in establishing this difference?
3. Why is the creation of life an exception to entropy? What is the relationship between entropy and energy?
4. Why does Cole say that entropy "is no laughing matter"? What is so depressing about the entropy she describes?
5. Refer to your dictionary as needed to define the following words used in the selection: *futility* (paragraph 1), *dissipated* (6), *buffeted* (7), *tepid* (7), and *atrophied* (12).

Questions About the Writer's Craft

1. **The pattern.** What is Cole's underlying purpose in defining the scientific term *entropy*? What gives the essay its persuasive edge?
2. What tone does Cole adopt to make reading about a scientific concept more interesting? Identify places in the essay where her tone is especially prominent.
3. Cole uses such words as *futility*, *loss*, and *depressing*. How do these words affect you? Why do you suppose she chose such terms? Find similar words in the essay.
4. **Other patterns.** Many of Cole's sentences follow a two-part pattern involving a *contrast*: "The road to disorder is all downhill but the road to creation takes work" (paragraph 10). Find other examples of this pattern in the essay. Why do you think Cole uses it so often?

Writing Assignments Using Definition as a Pattern of Development

1. Define *order* or *disorder* by applying the term to a system that you know well—for example, your school, dorm, family, or workplace. Develop your definition through any combination of writing patterns: by supplying examples, by showing contrasts, by analyzing the process underlying the system, and so on.
2. Choose, as Cole does, a technical term that you think will be unfamiliar to most readers. In a humorous or serious paper, define the term as it is used

technically; then show how the term can shed light on some aspect of your life. For example, the concept in astronomy of a *supernova* could be used to explain your sudden emergence as a new star on the athletic field, in your schoolwork, or on the social scene. Here are a few suggested terms:

symbiosis	volatility	resonance
velocity	erosion	catalyst
neutralization	equilibrium	malleability

Writing Assignments Combining Patterns of Development



3. Can one person make much difference in the amount of entropy—disorder and chaos—in the world? *Argue* your position in an essay. Use *examples* of people who have tried to overcome the tendency of things to “fall apart.” Make clear whether you think these people succeeded or failed in their attempts. To inform your perspective before writing, read James Gleick’s “Life As Type A” (page 441), an evaluation of the factors that influence people’s compulsion for order.



4. Cole claims that our lives contain a distressing amount of “haphazardness” (paragraph 7). Write an essay *arguing* that people either do or do not control their own fates. Support your point with a series of specific *examples*. For one author’s reflections on life’s unpredictability, read Beth Johnson’s “Bombs Bursting in Air” (page 252).

Writing Assignment Using a Journal Entry as a Starting Point

5. Write an essay arguing that disorder can be liberating *or* that it can be stifling. Review your pre-reading journal entry, and select strong, compelling examples that support your position. Aim to refute as many opposing arguments as possible. Your essay may have a serious or a humorous tone.

JAMES GLEICK

After graduating from Harvard College in 1976, James Gleick helped found *Metropolis*, an alternative newspaper in Minneapolis. He then spent ten years as a reporter and editor with *The New York Times*, where he wrote a column about the impact of science and technology on modern life. His earlier books, *Chaos: Making a New Science* (1987) and *Genius: The Life and Science of Richard Feynman* (1992), were both finalists for the National Book Award and Pulitzer Prize. Most recently, he wrote the biography *Isaac Newton* (2003) and *What Just Happened: A Chronicle from the Information Frontier* (2002), a collection of previously published essays on the first

ten years of the information revolution. Formerly McGraw Distinguished Lecturer at Princeton University, Gleick lives with his wife, writer Cynthia Crossen, in New York. The following piece is taken from Gleick's book *Faster: The Acceleration of Just About Everything* (1999).

Pre-Reading Journal Entry

Like many people, you may feel harried and under pressure at least some of the time. Use your journal to reflect on the sources of stress in your everyday life. List several examples. For each, consider the factors leading to this frenzied feeling.

LIFE AS TYPE A

- 1 Everyone knows about Type A. This magnificently bland coinage, put forward by a pair of California cardiologists in 1959, struck a collective nerve and entered the language. It is a token of our confusion: are we victims or perpetrators of the crime of haste? Are we living at high speed with athleticism and vigor, or are we stricken by hurry sickness?
- 2 The cardiologists, Meyer Friedman and Ray Rosenman, listed a set of personality traits which, they claimed, tend to go hand in hand with one another and also with heart disease. They described these traits rather unappealingly, as characteristics about and around the theme of impatience. Excessive competitiveness. Aggressiveness. “A harrying sense of time urgency.” The Type A idea emerged in technical papers and then formed the basis of a popular book and made its way into dictionaries. The canonical Type A, as these doctors portrayed him, was “Paul”:

A very disproportionate amount of his emotional energy is consumed in struggling against the normal constraints of time. “How can I move faster, and do more and more things in less and less time?” is the question that never ceases to torment him.

Paul hurries his thinking, his speech and his movements. He also strives to hurry the thinking, speech, and movements of those about him; they must communicate rapidly and relevantly if they wish to avoid creating impatience in him. Planes must arrive and depart precisely on time for Paul, cars ahead of him on the highway must maintain a speed he approves of, and there must never be a queue of persons standing between him and a bank clerk, a restaurant table, or the interior of a theater. In fact, he is infuriated whenever people talk slowly or circuitously, when planes are late, cars dawdle on the highway, and queues form.

Let's think . . . Do we know anyone like “Paul”?

- 3 This was the first clear declaration of *hurry sickness*—another coinage of Friedman's. It inspired new businesses: mind-body workshops; videotapes demonstrating deep breathing; anxiety-management retreats; seminars on and even institutes of stress medicine. “I drove all the way in the right-hand lane,” a Pacific Gas and Electric Company executive said proudly one morning in 1987 to a group of self-confessed

hurriers, led by Friedman himself, by then seventy-six years old. In the battle against Type A jitters, patients tried anything and everything—the slow lane, yoga, meditation, visualization: “Direct your attention to your feet on the floor. . . . Be aware of the air going in your nostrils cool and going out warm. . . . Visualize a place you like to be. . . . Experience it and see the objects there, the forms and shadows. Take another deep breath and experience the sounds, the surf, the wind, leaves, a babbling brook.” Some hospital television systems now feature a “relaxation channel,” with hour after hour of surf, wind, leaves, and babbling brooks.

We believe in Type A—a triumph for a notion with no particular scientific validity. 4 The Friedman-Rosenman claim has turned out to be both obvious and false. Clearly some heart ailments do result from, or at least go along with, stress (itself an ill-defined term), both chronic and acute. Behavior surely affects physiology, at least once in a while. Sudden dashes for the train, laptop computer in one hand and takeout coffee in the other, can accelerate heartbeats and raise blood pressure. That haste makes coronaries was already a kind of folk wisdom—that is, standard medical knowledge untainted by research. “Hurry has a clearly debilitating effect upon the tissues and may in time injure the heart,” admonished Dr. Cecil Webb-Johnson in *Nerve Troubles*, an English monograph of the early 1900s. “The great men of the centuries past were never in a hurry,” he added sanctimoniously, “and that is why the world will never forget them in a hurry.” It might be natural—even appealing—to expect certain less-great people to receive their cardiovascular comeuppance. But in reality, three decades of attention from cardiologists and psychologists have failed to produce any carefully specified and measurable set of character traits that predict heart disease—or to demonstrate that people who change their Type A behavior will actually lower their risk of heart disease.

Indeed, the study that started it all—Friedman and Rosenman’s “Association of 5 Specific Overt Behavior Pattern with Blood and Cardiovascular Findings”—appears to have been a wildly flawed piece of research. It used a small sample—eighty-three people (all men) in what was then called “Group A.” The selection process was neither random nor blind. White-collar male employees of large businesses were rounded up by acquaintances of Friedman and Rosenman on a subjective basis—they fit the type. The doctors further sorted the subjects by interviewing them personally and observing their appearance and behavior. Did a man gesture rapidly, clench his teeth, or exhibit a “general air of impatience”? If so, he was chosen. It seems never to have occurred to these experienced cardiologists that they might have been consciously or unconsciously selecting people whose physique indicated excess weight or other markers for incipient heart disease. The doctors’ own data show that the final Group A drank more, smoked more, and weighed more than Group B. But the authors dismissed these factors, asserting, astonishingly, that there was no association between heart disease and cigarette smoking.

In the years since, researchers have never settled on a reliable method for identify- 6 ing Type A people, though not for want of trying. Humans are not reliable witnesses to their own impatience. Researchers have employed questionnaires like the Jenkins Activity Survey, and they have used catalogues of grimaces and frowns—Ekman and Friesen’s Facial Action Coding System, for example, or the Cook-Medley Hostility Inventory. In the end, nothing conclusive emerges. Some studies have found Type A people to have *lower* blood pressure. The sedentary and obese have cardiac difficulties of their own.

- 7 The notion of Type A has expanded, shifted, and flexed to suit the varying needs of different researchers. V. A. Price adds *hypervigilance* to the list of traits. Some doctors lose patience with the inconclusive results and shift their focus to anger and hostility—mere subsets of the original Type A grab-bag. Cynthia Perry finds that Type A people have fewer daydreams. How does she know? She asks them to monitor lines flashing across a computer screen for forty painfully boring minutes and finds that, when interrupted by a beep (1000 hertz at 53 decibels), they are less likely to press a black button to confess that irrelevant thoughts had strayed into their minds. Studies have labeled as Type A not only children (those with a tendency to interrupt and to play competitively at games) but even babies (those who cry more). Meanwhile, researchers interested in pets link the Type A personality to petlessness; a National Institutes of Health panel reports: “The description of a ‘coronary-prone behavior pattern,’ or Type A behavior, and its link to the probability of developing overt disease provided hope that, with careful training, individuals could exercise additional control over somatic illness by altering their lifestyle. . . . Relaxation, meditation, and stress management have become recognized therapies. . . . It therefore seems reasonable that pets, who provide faithful companionship to many people, also might promote greater psychosocial stability for their owners, and thus a measure of protection from heart disease.” This is sweet, but it is not science.
- 8 Typically a Type A study will begin with researchers who assume that there are some correlations to be found, look for a wide variety of associations, fail to find some and succeed in finding others. For example, a few dozen preschool children are sorted according to their game-playing styles and tested for blood pressure. No correlation is found. Later, however, when performing a certain “memory game,” the supposed Type A children rank somewhat higher in, specifically, systolic pressure. Interesting? The authors of various published papers evidently think so, but they are wrong, because if their technique is to keep looking until they find some correlation, somewhere, they are bound to succeed. Such results are meaningless.
- 9 The categorizations are too variable and the prophecies too self-fulfilling. It is never quite clear which traits *define* Type A and which are fellow travelers. The “freefloating, but well-rationalized form of hostility”? The “deep-seated insecurity”? “Their restlessness, their tense facial muscles, their tics, or their strident-staccato manner of speaking”? If you are hard-driving yet friendly, chafing yet self-assured—if you race for the airport gate and then settle *happily* into your seat—are you Type A or not? If you are driven to walk briskly, briskly, all the time, isn’t that good for your heart?
- 10 Most forget that there is also supposed to be a Type B, defined not by the personality traits its members possess but by the traits they lack. Type B people are the shadowy opposites of Type A people. They are those who are not so very Type A. They do *not* wear out their fingers punching that elevator button. They do *not* allow a slow car in the fast lane to drive their hearts to fatal distraction; in fact, they are at the wheel of that slow car. Type B played no real part in that mass societal gasp of recognition in the 1970’s. Type B-ness was just a foil. Doctors Friedman and Rosenman actually claimed to have had trouble finding eighty men in all San Francisco who were not under any time pressure. They finally came up with a few, they wrote solemnly, “in the municipal clerks’ and the embalmers’ unions.”
- 11 Even more bizarrely, that first Friedman-Rosenman study also included a Group C, comprising forty-six unemployed blind men. Not much haste in Group C. “The primary reason men of Group C exhibited little ambition, drive, or desire to compete,”

the doctors wrote, “was the presence of total blindness for ten or more years and the lack of occupational deadlines because none was gainfully employed.” No wonder they omitted Type C from the subsequent publicity.

If the Type A phenomenon made for poor medical research, it stands nonetheless as a triumph of social criticism. Some of us yield more willingly to impatience than others, but on the whole Type A is who we are—not just the coronary-prone among us, but all of us, as a society and as an age. No wonder the concept has proven too rich a cultural totem to be dismissed.

Questions for Close Reading

1. What is the selection’s thesis? Locate the sentence(s) in which Gleick states his main idea. If he doesn’t state the thesis explicitly, express it in your own words.
2. What is Gleick’s opinion of the study Friedman and Rosenman conducted? List at least two elements of the study that Gleick uses to support his assessment.
3. In paragraph 7, Gleick observes that the concept of Type A has changed since Friedman and Rosenman’s study first chronicled it. How has it changed? What accounts for this change?
4. According to Gleick, how do Friedman and Rosenman define the Type B personality? Why does Gleick find fault with their definition of this personality type?
5. Refer to your dictionary as needed to define the following words used in the selection: *coinage* (paragraph 1), *harrying* (2), *canonical* (2), *circuitously* (2), *sanctimoniously* (4), *overt* (5), *incipient* (5), *sedentary* (6), *hypervigilance* (7), *correlations* (8), *strident* (9), *staccato* (9), *foil* (10), and *totem* (12).

Questions About the Writer’s Craft

1. **The pattern.** In their work, Friedman and Rosenman use a description of Paul to define “canonical Type A” behavior (paragraph 2). Why do you suppose that Gleick, who criticizes Friedman and Rosenman’s research, quotes their portrait of Paul at such length?
2. **The pattern.** Gleick uses a sequence of three fragments when discussing (in paragraph 2) how Type A has been defined. Identify these fragments. What effect do you think Gleick wanted the fragments to have?
3. Locate places where Gleick uses the first-person pronouns *we*, *us*, and *our*. What do you think Gleick’s purpose is in using these pronouns?
4. In paragraph 1, Gleick sarcastically refers to the phrase *Type A* as “magnificently bland.” Find other places in the essay where he uses sarcasm. Why might he have chosen to employ such language?

Writing Assignments Using Definition as a Pattern of Development



1. Write an essay offering a fuller definition of the Type B personality than Gleick's essay provides. Rather than defining Type B through negation, as Friedman and Rosenman do, marshal convincing evidence that illustrates the validity of the Type B phenomenon. Brainstorming with friends, family, and classmates will help you generate strong examples of this personality type. At some point in the essay, you might offer a brief personality sketch of the "canonical" Type B as well as discuss the factors that shape the Type B personality as you define it. You might find that K. C. Cole's "Entropy" (page 436) offers some useful insights into why people might be better off as Type B.
2. Gleick notes that, like *Type A*, *stress* is an ill-defined term. Brainstorm with others to identify as many examples of different kinds of stress as you can. Review the brainstormed material, and select a specific type of stress to focus on. Then write an essay providing a *clear* definition of that particular stress. Possibilities include "dating stress," "workplace stress," "online stress," "fitness stress." Near the end of the essay, you might provide concise hints for managing the stress you define. Your essay may have a humorous or a serious tone—whichever seems appropriate to your subject.

Writing Assignments Combining Patterns of Development



3. Write an essay *contrasting* situations in which being Type A would be beneficial with situations in which it would be counterproductive. Under what circumstances would Type A characteristics be desirable? Under what circumstances would they be undesirable? Drawing upon your own experiences and observations, reach some conclusions about the advantages and/or limitations of the Type A personality. Along the way, you should explore the *effects* of Type A behavior in the situations you're considering.



4. Gleick observes that "hurry sickness" is a trait induced by society at large. Identify a trait of yours that you think is also a reflection or *effect* of the society in which you live. You might discuss your tendency to be aggressive or non-assertive, materialistic or idealistic, studious or fun-loving. Write an essay *illustrating* this character trait at work in your everyday behavior. Explain whether you think this trait works to your advantage or disadvantage. For another "take" on how society helps determine and define a particular characteristic, read Natalie Angier's "The Cute Factor" (page 446).



Writing Assignment Using a Journal Entry as a Starting Point



5. Gleick claims that the Type A phenomenon is pervasive in our society. Write an essay of your own illustrating the extent to which your life reflects this phenomenon. Draw upon the most dramatic examples in your pre-reading journal entry. At the end of the essay, describe steps that you or anyone with similar pressures could take to slow down the frenetic pace of everyday life. Gathering information in the library and/or on the Internet might be helpful when you develop the final section of your paper.

NATALIE ANGIER

Natalie Angier was born in 1958 and was raised in the Bronx, New York, and in Michigan. She attended Barnard College, where she studied literature, astronomy, and physics. After working for *Discover* magazine, she became a reporter for the science section of *The New York Times* in 1990. The following year she won a Pulitzer Prize for her science reporting. In addition to reporting, Angier has written several books, including *The Beauty of the Beastly* (1995), *Natural Obsessions: Striving to Unlock the Deepest Secret of the Cancer Cell* (1999), and *Woman: An Intimate Geography* (1999). Angier has always been interested in bridging the gap between science and the humanities. This article, about the scientific basis of cuteness, was published in *The New York Times* on January 3, 2006.

Pre-Reading Journal Entry

Some concepts—like beauty, elegance, and cuteness—are hard to explain, although people usually believe they understand what those concepts are. Take a moment to reflect in your journal on what *you* mean when you say something is “cute.” What qualities come to mind? Consider the kinds of things that you would deem cute, and list as many as you can think of in your journal.

THE CUTE FACTOR

If the mere sight of Tai Shan, the roly-poly, goofily gamboling masked bandit of a 1
panda cub now on view at the National Zoo isn’t enough to make you melt, then maybe
the crush of his human onlookers, the furious flashing of their cameras and the heated
gasps of their mass rapture will do the trick.

Awwww. . . . Scientists who study the evolution of visual signaling have identified a 2
wide and still-expanding assortment of features and behaviors that make something
look cute.

Cute cues are those that indicate extreme youth, vulnerability, harmlessness and 3
need, scientists say.

- 4 “Omigosh, look at him! He is too cute!”
- 5 “How adorable! I wish I could just reach in there and give him a big squeeze!”
- 6 “He’s so fuzzy! I’ve never seen anything so cute in my life!”
- 7 A guard’s sonorous voice rises above the burble. “OK, folks, five oohs and aahs per person, then it’s time to let someone else step up front.”
- 8 The 6-month-old, 25-pound Tai Shan—whose name is pronounced tie-SHON and means, for no obvious reason, “peaceful mountain”—is the first surviving giant panda cub ever born at the Smithsonian’s zoo. And though the zoo’s adult pandas have long been among Washington’s top tourist attractions, the public debut of the baby in December has unleashed an almost bestial frenzy here. Some 13,000 timed tickets to see the cub were snapped up within two hours of being released, and almost immediately began trading on eBay for up to \$200 a pair.
- 9 Panda mania is not the only reason that 2005 proved an exceptionally cute year. Last summer, a movie about another black-and-white charmer, the emperor penguin, became one of the highest-grossing documentaries of all time.¹ Sales of petite, willfully cute cars like the Toyota Prius and the Mini Cooper soared, while those of non-cute sport utility vehicles tanked.
- 10 Women’s fashions opted for the cute over the sensible or glamorous, with low-slung slacks and skirts and abbreviated blouses contriving to present a customer’s midriff as an adorable preschool bulge. Even the too big could be too cute. King Kong’s newly reissued face has a squashed baby-doll appeal, and his passion for Naomi Watts ultimately feels like a serious case of puppy love—hopeless, heartbreaking, cute.²
- 11 Scientists who study the evolution of visual signaling have identified a wide and still expanding assortment of features and behaviors that make something look cute: bright forward-facing eyes set low on a big round face, a pair of big round ears, floppy limbs and a side-to-side, teeter-totter gait, among many others.
- 12 Cute cues are those that indicate extreme youth, vulnerability, harmlessness and need, scientists say, and attending to them closely makes good Darwinian sense. As a species whose youngest members are so pathetically helpless they can’t lift their heads to suckle without adult supervision, human beings must be wired to respond quickly and gamely to any and all signs of infantile desire.
- 13 The human cuteness detector is set at such a low bar, researchers said, that it sweeps in and deems cute practically anything remotely resembling a human baby or a part thereof, and so ends up including the young of virtually every mammalian species, fuzzy-headed birds like Japanese cranes, woolly bear caterpillars, a bobbing balloon, a big round rock stacked on a smaller rock, a colon, a hyphen and a close parenthesis typed in succession.
- 14 The greater the number of cute cues that an animal or object happens to possess, or the more exaggerated the signals may be, the louder and more italicized are the squeals provoked.
- 15 Cuteness is distinct from beauty, researchers say, emphasizing rounded over sculptured, soft over refined, clumsy over quick. Beauty attracts admiration and demands a pedestal; cuteness attracts affection and demands a lap. Beauty is rare and brutal,

¹A reference to *March of the Penguins* (2005), directed by Luc Jacquet (editors’ note).

²A reference to the 2005 version of *King Kong*, directed by Peter Jackson and starring Naomi Watts as Ann Darrow, the oversized ape’s female human ally (editors’ note).

despoiled by a single pimple. Cuteness is commonplace and generous, content on occasion to cosegregate with homeliness.

Observing that many Floridians have an enormous affection for the manatee, which looks like an overfertilized potato with a sock puppet's face, Roger L. Reep of the University of Florida said it shone by grace of contrast. "People live hectic lives, and they may be feeling overwhelmed, but then they watch this soft and slow-moving animal, this gentle giant, and they see it turn on its back to get its belly scratched," said Dr. Reep, author with Robert K. Bonde of *The Florida Manatee: Biology and Conservation*. 16

"That's very endearing," said Dr. Reep. "So even though a manatee is 3 times your size and 20 times your weight, you want to get into the water beside it." 17

Even as they say a cute tooth has rational roots, scientists admit they are just beginning to map its subtleties and source. New studies suggest that cute images stimulate the same pleasure centers of the brain aroused by sex, a good meal or psychoactive drugs like cocaine, which could explain why everybody in the panda house wore a big grin. 18

At the same time, said Denis Dutton, a philosopher of art at the University of Canterbury in New Zealand, the rapidity and promiscuity of the cute response makes the impulse suspect, readily overridden by the angry sense that one is being exploited or deceived. 19

"Cute cuts through all layers of meaning and says, Let's not worry about complexities, just love me," said Dr. Dutton, who is writing a book about Darwinian aesthetics. "That's where the sense of cheapness can come from, and the feeling of being manipulated or taken for a sucker that leads many to reject cuteness as low or shallow." 20

Quick and cheap make cute appealing to those who want to catch the eye and please the crowd. Advertisers and product designers are forever toying with cute cues to lend their merchandise instant appeal, mixing and monkeying with the vocabulary of cute to keep the message fresh and fetching. 21

That market-driven exercise in cultural evolution can yield bizarre if endearing results, like the blatantly ugly Cabbage Patch dolls, Furbies, the figgy face of E.T., the froggy one of Yoda. As though the original Volkswagen Beetle wasn't considered cute enough, the updated edition was made rounder and shinier still. 22

"The new Beetle looks like a smiley face," said Miles Orvell, professor of American studies at Temple University in Philadelphia. "By this point its origins in Hitler's regime, and its intended resemblance to a German helmet, is totally forgotten." 23

Whatever needs pitching, cute can help. A recent study at the Veterans Affairs Medical Center at the University of Michigan showed that high school students were far more likely to believe antismoking messages accompanied by cute cartoon characters like a penguin in a red jacket or a smirking polar bear than when the warnings were delivered unadorned. 24

"It made a huge difference," said Sonia A. Duffy, the lead author of the report, which was published in *The Archives of Pediatrics and Adolescent Medicine*. "The kids expressed more confidence in the cartoons than in the warnings themselves." 25

Primal and widespread though the taste for cute may be, researchers say it varies in strength and significance across cultures and eras. They compare the cute response to the love of sugar: everybody has sweetness receptors on the tongue, but some people, and some countries, eat a lot more candy than others. 26

- 27 Experts point out that the cuteness craze is particularly acute in Japan, where it goes by the name “kawaii” and has infiltrated the most masculine of redoubts. Truck drivers display Hello Kitty–style figurines on their dash/boards. The police enliven safety billboards and wanted posters with two perky mouselike mascots, Pipo kun and Pipo chan.
- 28 Behind the kawaii phenomenon, according to Brian J. McVeigh, a scholar of East Asian studies at the University of Arizona, is the strongly hierarchical nature of Japanese culture. “Cuteness is used to soften up the vertical society,” he said, “to soften power relations and present authority without being threatening.”
- 29 In this country, the use of cute imagery is geared less toward blurring the line of command than toward celebrating America’s favorite demographic: the young. Dr. Orvell traces contemporary cute chic to the 1960’s, with its celebration of a perennial childhood, a refusal to dress in adult clothes, an inversion of adult values, a love of bright colors and bloopy, cartoony patterns, the Lava Lamp.
- 30 Today, it’s not enough for a company to use cute graphics in its advertisements. It must have a really cute name as well. “Companies like Google and Yahoo leave no question in your mind about the youthfulness of their founders,” said Dr. Orvell.
- 31 Madison Avenue may adapt its strategies for maximal tweaking of our inherent baby radar, but babies themselves, evolutionary scientists say, did not really evolve to be cute. Instead, most of their salient qualities stem from the demands of human anatomy and the human brain, and became appealing to a potential caretaker’s eye only because infants wouldn’t survive otherwise.
- 32 Human babies have unusually large heads because humans have unusually large brains. Their heads are round because their brains continue to grow throughout the first months of life, and the plates of the skull stay flexible and unfused to accommodate the development. Baby eyes and ears are situated comparatively far down the face and skull, and only later migrate upward in proportion to the development of bones in the cheek and jaw areas.
- 33 Baby eyes are also notably forward-facing, the binocular vision a likely legacy of our tree-dwelling ancestry, and all our favorite Disney characters also sport forward-facing eyes, including the ducks and mice, species that in reality have eyes on the sides of their heads.
- 34 The cartilage tissue in an infant’s nose is comparatively soft and undeveloped, which is why most babies have button noses. Baby skin sits relatively loose on the body, rather than being taut, the better to stretch for growth spurts to come, said Paul H. Morris, an evolutionary scientist at the University of Portsmouth in England; that lax packaging accentuates the overall roundness of form.
- 35 Baby movements are notably clumsy, an amusing combination of jerky and delayed, because learning to coordinate the body’s many bilateral sets of large and fine muscle groups requires years of practice. On starting to walk, toddlers struggle continuously to balance themselves between left foot and right, and so the toddler gait consists as much of lateral movement as of any forward momentum.
- 36 Researchers who study animals beloved by the public appreciate the human impulse to nurture anything even remotely babylike, though they are at times taken aback by people’s efforts to identify with their preferred species. . . .
- 37 The giant panda offers . . . [a] case study in accidental cuteness. Although it is a member of the bear family, a highly carnivorous clan, the giant panda specializes in eating bamboo.

As it happens, many of the adaptations that allow it to get by on such a tough diet contribute to the panda's cute form, even in adulthood. Inside the bear's large, rounded head, said Lisa Stevens, assistant panda curator at the National Zoo, are the highly developed jaw muscles and the set of broad, grinding molars it needs to crush its way through some 40 pounds of fibrous bamboo plant a day. 38

When it sits up against a tree and starts picking apart a bamboo stalk with its distinguishing pseudo-thumb, a panda looks like nothing so much like Huckleberry Finn shucking corn. Yet the humanesque posture and paws again are adaptations to its menu. The bear must have its "hands" free and able to shred the bamboo leaves from their stalks. 39

The panda's distinctive markings further add to its appeal: the black patches around the eyes make them seem winsomely low on its face, while the black ears pop out cutely against the white fur of its temples. 40

As with the penguin's tuxedo, the panda's two-toned coat very likely serves a twofold purpose. On the one hand, it helps a feeding bear blend peacefully into the dappled backdrop of bamboo. On the other, the sharp contrast between light and dark may serve as a social signal, helping the solitary bears locate each other when the time has come to find the perfect, too-cute mate. 41

Questions for Close Reading

1. What is the selection's thesis? Locate the sentence(s) in which Angier states her main idea. If she doesn't state her thesis explicitly, express it in your own words.
2. Angier uses the scientific term *visual signaling* (paragraphs 2, 11). What is visual signaling? Give some examples from the article of the visual signaling of "cute."
3. In paragraph 13, Angier quotes researchers as saying that the "human cuteness detector is set at . . . a low bar." What does Angier assert is the underlying reason that people respond so strongly to cuteness?
4. In paragraph 26, Angier indicates that cute varies from culture to culture. How does the significance of cute in Japan differ from its significance in the United States? Give some examples of the differences between the two cultures.
5. Refer to your dictionary as needed to define the following words used in the selection: *gamboling* (paragraph 1), *rapture* (1), *sonorous* (7), *despoiled* (15), *cosegregate* (15), *homeliness* (15), *aesthetics* (20), *blatantly* (22), *unadorned* (24), *primal* (26), *redoubts* (27), *hierarchical* (28), *inherent* (31), *salient* (31), and *winsomely* (40).

Questions About the Writer's Craft

1. The opening of a newspaper article is called a *lead*, and its purpose is to hook the reader and set up a framework for the story. Analyze the lead of Angier's article (paragraphs 1–3). How does she try to engage your interest (the hook)?

How does this lead frame the contents of the remainder of the article? How are the lead and the thesis statement related in this article?

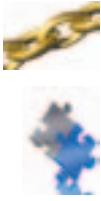
2. **The pattern.** What is the tone of Angier’s article? Why did she adopt this tone? Do you think her tone is appropriate given her objective of defining the term *cuteness*? Explain your answer.
3. **Other patterns.** In paragraph 15, Angier contrasts cuteness with beauty. What are some transitional words and phrases that help sharpen this contrast?
4. **Other patterns.** Paragraphs 32 through 35 contain a lengthy description of a baby’s appearance. What is the purpose of this description? Is the description mostly objective or subjective? Support your answer with examples.

Writing Assignments Using Definition as a Pattern of Development

1. In paragraph 15, Angier briefly characterizes beauty as sculptured, refined, and quick. She also contrasts beauty with cuteness. Do you agree with Angier’s characterization of beauty? What are some words you would use to characterize beauty? Using Angier’s characterization of beauty as a starting point, write an extended definition of beauty. Your essay can be serious, light-hearted, humorous, or satiric.
2. Angier indicates that the American view of cuteness is closely related to our celebration of youth (paragraph 29). Write an extended definition of youth in American culture. Consider actual youthfulness (children), the effort of mature adults to appear younger than they are, the efforts of young people to appear older than they are, youthful fashions, and other cultural manifestations of youth in America. For a view of changing youth culture you might read “Tweens: Ten Going on Sixteen” by Kay S. Hymowitz (page 245) and Buzz Bissinger’s “Innocents Afield” (page 407).

Writing Assignments Combining Patterns of Development

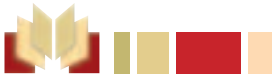
3. Angier gives examples of cuteness in movies (*March of the Penguins*, the 2005 version of *King Kong*, the characters E.T. and Yoda), product design (the VW Beetle), and advertising (an antismoking campaign aimed at teens). Select one of these examples of cuteness—or another of your own choosing—and do some research on it. For example, if you choose a character in a movie or TV show, watch the movie or show; if you choose a product, do research on it and use it if possible; and if you choose an ad campaign, collect examples of the ads. Then write an essay in which you *describe* the item, explain how it is an *example* of cuteness, and recount the *effect* it has on you.



4. Angier’s article suggests that all humans respond to cuteness, although there are cultural differences in these responses. Are there other differences as well? For example, do men and women respond differently to cuteness? Teenagers and senior citizens? Parents and nonparents? Reflect on your own experiences with cuteness, and inquire into the experiences of your friends, family members, and others. Then write an essay *comparing* and *contrasting* your responses with those of someone who differs from you in gender, age, or parental status. Explain the possible *causes* and *effects* of your different responses to cuteness. Before writing, consider reading Kay S. Hymowitz’s “Tweens: Ten Going on Sixteen” (page 245) for an examination of the generation gap regarding the process of growing up.

Writing Assignment Using a Journal Entry as a Starting Point

5. Review the cute things you listed in your pre-reading journal. Do these things fall into categories, such as toys, cartoons, or animals? Which of them, if any, are cute according to the extended definition in Angier’s article? Write an essay in which you *classify* your cute things and explain how they *exemplify* (or do not exemplify) Angier’s definition of cute. If your items present different characteristics from those outlined by Angier, offer your own definition of cuteness.



ADDITIONAL WRITING TOPICS: DEFINITION

General Assignments

Using definition, write an essay on one of the following topics. Once you fix on a limited subject, decide if the essay has an informative or a persuasive purpose. The paper might begin with the etymology of the term, a stipulative definition, or a definition by negation. You may want to use a number of writing patterns—such as description, comparison, narration, process analysis—to develop the definition. Remember, too, that the paper doesn’t have to be scholarly and serious. There is no reason it can’t be a lighthearted discussion of the meaning of a term.

1. Fads
2. Helplessness
3. An epiphany
4. A workaholic
5. A Pollyanna

6. A con artist
7. A cheapskate
8. A Yiddish term such as *mensch*, *klutz*, *chutzpah*, or *dreck*, or a commonly used term imported from some other language
9. Empowerment
10. Hypocrisy
11. Inner peace
12. Obsession
13. Generosity
14. Depression
15. Greed
16. Exploitation
17. A double bind
18. A conflict of interest
19. An ethical quandary
20. A win-win situation

Assignments with a Specific Purpose, Audience, and Point of View

On Campus

1. You've been asked to write part of a pamphlet for students who come to the college health clinic. For this pamphlet, define *one* of the following conditions and its symptoms: *depression*, *stress*, *burnout*, *test anxiety*, *addiction* (to alcohol, drugs, or TV), *workaholicism*. Part of the pamphlet should describe ways to cope with the condition described.
2. One of your responsibilities as a peer counselor in the student counseling center involves helping students communicate more effectively. To assist students, write a definition of some term that you think represents an essential component of a strong interpersonal relationship. You might, for example, define *respect*, *sharing*, *equality*, or *trust*. Part of the definition should employ definition by negation, a discussion of what the term is *not*.

At Home or in the Community

3. *Newsweek* magazine runs a popular column called "My Turn," consisting of readers' opinions on subjects of general interest. Write a piece for this column defining *today's college students*. Use the piece to dispel some negative

stereotypes (for example, that college students are apathetic, ill-informed, self-centered, and materialistic).

4. In your apartment building, several residents have complained about their neighbors' inconsiderate and rude behavior. You're president of the residents' association, and it's your responsibility to address this problem at your next meeting. Prepare a talk in which you define *courtesy*, the quality you consider most essential to neighborly relations. Use specific examples of what courtesy is and isn't to illustrate your definition.

On the Job

5. You're an attorney arguing a case of sexual harassment—a charge your client has leveled against an employer. To win the case, you must present to the jury a clear definition of exactly what *sexual harassment* is and isn't. Write such a definition for your opening remarks in court.
6. A new position has opened in your company. Write a job description to be sent to employment agencies that will screen candidates. Your description should define the job's purpose, state the duties involved, and outline essential qualifications.

For additional writing, reading, and research resources, go to www.mycomplab.com and choose Nadell/Langan/Comodromos' *The Longman Writer*, 7/e.