CHAPTER SEVENTEEN

Revising Style: Telling Your Story Clearly

So far we have focused on the argument and organization of your report. In this chapter we show you how to revise your sentences so that readers will think they are clear and direct.

Readers will accept your claim only if they understand your argument, but they won't understand your argument if they can't understand your sentences. Once you revise your report so that readers will judge its argument to be sound and well organized, find time to make a last pass to make your sentences as easy to read as the complexity of your ideas allows. But again, you face a familiar problem: you can't know which sentences need revising just by reading them. Since you already know what you want them to mean, you will read into them what you want your readers to get out of them. To ensure that your sentences will be as clear to your readers as they are to you, you need a way to identify difficult sentences even when they seem fine to you.

17.1 JUDGING STYLE

If you had to read a report written in the style of one of the following examples, which would you choose?

> 1a. Too precise a specification of information-processing requirements incurs a risk of a decision-maker's over- or underestimation, resulting in the inefficient use of costly resources. Too little precision in specifying needed processing capacity gives no indication with respect to the procurement of needed resources.

1b. A person who makes decisions sometimes specifies what he needs to process information. He may do so too precisely. He may over- or underestimate the resources that he needs. When he does that, he may use costly resources inefficiently. He may also fail to be precise enough. He may not indicate which resources others should procure.

1c. When a decision-maker specifies too precisely the resources he needs to process information, he may over- or underestimate them and thereby use costly resources inefficiently. But if he is not precise enough, he may not indicate which resources to procure.

Few readers choose (1a): it sounds like a machine speaking to a machine (it appeared in a respectable journal). Some choose (1b), but it sounds simpleminded, like an adult speaking slowly to a child. Most choose (1c). It sounds like one colleague speaking to another. One of the worst problems in academic writing today is that too many researchers sound like (1a).

A few researchers prefer (1a), claiming that heavy thinking demands heavy writing, that when they try to make complicated ideas clear, they sacrifice nuances and complexity of thought for too-easy understanding. If readers don't understand, too bad; they should work harder.

Perhaps. Everyone who reads philosophers like Immanuel Kant or Friedrich Hegel struggles with their complex prose style, at least at first. But what they have to say proves to be worth the effort. The problem is, few of us think as well as Kant or Hegel. For most of us most of the time, our dense writing indicates not the irreducible difficulty of a work of genius, but the sloppy thinking of a writer indifferent to his readers. And even when complex thinking does require a complex style (less often than we think), every sentence profits from a second look (and truth be told, Kant and Hegel would have benefited from a good editor).

Some writers do go too far in avoiding a complex style, using simplistic sentences like those in (1b) above. But we assume that most of you do not have that problem, and that you need little help with spelling and grammar. (If you think you do, talk to a writing

tutor.) We address here the problem of a style that is too "academic," which is to say, more difficult than it has to be. Convoluted and indirect prose is not what good writers aim for, but what thoughtless ones get away with.

This problem especially afflicts those just starting advanced work because they are hit by double trouble. First, when any of us writes about new and complex ideas that challenge our understanding, we write less clearly than we ordinarily can. This problem afflicts even the most experienced researchers. But new researchers compound that problem when they think that a complex style bespeaks academic success and they imitate the tangled prose they read. That we can avoid.

17.2 THE FIRST TWO PRINCIPLES OF CLEAR WRITING

17.2.1 Distinguishing Impressions from Their Causes

If we asked you to explain how you chose between (1a) and (1c) above, you would probably describe (1a) with words like *unclear, wordy,* and *dense*; (1c) with words like *clear, concise,* and *direct*. But those words refer not to those sentences on the page, but to how you *felt* as you read them. If you said that (1a) was *dense,* you were really saying that *you* had a hard time getting through it; if you said (1c) was *clear,* you were saying that *you* found it easy to understand.

There's nothing wrong with using impressionistic words to describe your feelings, but they don't help you *fix* unclear sentences like (1a), because they don't explain *what it is on the page that makes you feel as you do.* For that, you need a way to think about sentences that connects an impression like *confusing* to what it is *in the sentence, on the page* that confuses you. More important, you have to know how to revise your own sentences when they are clear to you but won't be to your readers.

There are a few principles that distinguish the felt complexity of (1a) from the mature clarity of (1c). These principles focus on only two parts of a sentence: the first six or seven words and the last four or five. Get those words straight, and the rest of the sentence will (usually) take care of itself. To use these principles,

though, you must understand five grammatical terms: *simple subject, whole subject, verb, noun,* and *clause.* (If you haven't used those terms for a while, review them before you read on.)

This is important: don't try to apply these principles as you write new sentences but to revising those you've already written. If you follow the advice here *as you draft,* you may tie yourself in knots. Save your concern for revising sentences until you have sentences to revise.

17.2.2 Subjects and Characters

The first principle may remind you of something you learned in grammar school. At the heart of every sentence are its subject and verb. In grammar school you probably learned that subjects are the "doers" or agents of an action. But that's not always true, because subjects can be things other than doers, even actions. Compare these two sentences (the whole subject in each clause is underlined):

2a. <u>Locke</u> frequently repeated himself because <u>he</u> did not trust the power of words to name things accurately.

2b. <u>The reason for Locke's frequent repetition</u> lies in his distrust of the accuracy of the naming power of words.

The two subjects in (2a)—*Locke* and *he*—fit that grammar-school definition: they are doers. But the subject of (2b)—*The reason for Locke's frequent repetition*—does not, because *reason* doesn't really *do* anything here. The real doer is still Locke.

To get beyond sixth-grade definitions, we have to think not only about the grammar of a sentence—its subjects and verbs—but also about the *stories* they tell—about doers and their actions. Here is a story about rain forests and the biosphere:

3a. If <u>rain forests</u> are stripped to serve short-term economic interests, <u>the earth's biosphere</u> may be damaged.

3b. <u>The stripping of rain forests in the service of short-term economic interests</u> could result in damage to the earth's biosphere.

In the clearer version, (3a), look at the whole subjects of each clause:

> 3a. If rain forests$_{subject}$ are stripped$_{verb}$ . . . the earth's biosphere$_{subject}$ may be damaged.$_{verb}$

Those subjects name the main characters in that story in a few short, concrete words: *rain forests* and *the earth's biosphere*. Compare (3b):

> 3b. The stripping of rain forests in the service of short-term economic interests$_{subject}$ could result$_{verb}$ in damage to the earth's biosphere.

In (3b) the simple subject (*stripping*) names not a concrete character but rather an action; it is only part of the long abstract phrase that is the whole subject: *the **stripping** of rain forests in the service of short-term economic interests.*

Now we can see why grammar-school definitions may be bad language theory but good advice about writing. The first principle of clear writing is this:

> Readers will judge your sentences to be clear and readable to the degree that you make their subjects name the main characters in your story. When you do this, your subjects will be short, specific, and concrete.

17.2.3 Verbs, Nouns, and Actions

There is a second difference between clear and unclear prose: it is in the way writers express the crucial *actions* in their stories—as verbs or as nouns. For example, look again at the pairs of sentences (2) and (3) below. (Words naming actions are boldfaced; actions that are verbs are underlined; actions that are nouns are double-underlined.)

> 2a. Locke frequently **repeated** himself because he did not **trust** the power of words to **name** things accurately.

> 2b. The reason for Locke's frequent **repetition** lies in his **distrust** of the accuracy of the **naming** power of words.

3a. If rain forests are **stripped** to **serve** short-term economic inter-ests, the earth's biosphere may be **damaged**.

3b. The **stripping** of rain forests in the **service** of short-term eco-nomic interests could result in **damage** to the earth's biosphere.

Sentences (2a) and (3a) are clearer than (2b) and (3b) because their subjects are characters, but also because their actions are expressed not as nouns but as verbs:

(2A) VERB	VS.	(2B) NOUN	(3A) VERB	VS.	(3B) NOUN
repeat	vs.	repetition	strip	vs.	stripping
trust	vs.	distrust	serve	vs.	service
name	vs.	naming	damage	vs.	damage

(We'll discuss the passive verbs *are stripped* and *be damaged* in 17.4.)

When you express actions not with verbs but with abstract nouns, you also clutter a sentence with articles and prepositions. Look at all the articles and prepositions (boldfaced) in (4b) that (4a) doesn't need:

4a. Now that we$_{subject}$ have standardized$_{verb}$ an index to measure thought disorders, we$_{subject}$ can quantify$_{verb}$ how patients$_{subject}$ respond$_{verb}$ to different treatments.

4b. Our standardization **of** an index **for the** measurement **of** thought disorders$_{subject}$ has made$_{verb}$ possible **the** quantification **of** response **as a** function **of** treatment differences.

Sentence (4b) adds one *a*, *as*, and *for*; two *thes*, and four *ofs*, all because four verbs were turned into nouns: *standardize → standardization, measure → measurement, quantify → quantification, respond → response.*

There is a technical term for turning a verb (or adjective) into a noun: we *nominalize* it. (This term defines itself: when we nominalize the verb *nominalize*, we create the nominalization *nominalization*.) Most nominalizations end with suffixes such as *-tion, -ness, -ment, -ence, -ity*.

Verb	→	Nominalization	Adjective	→	Nominalization
decide		decision	precise		precision
fail		failure	frequent		frequency
resist		resistance	intelligent		intelligence

But some are spelled like the verb: *change* → *change*; *delay* → *delay*; *report* → *report*.

When you turn adjectives and verbs into nouns, you can tangle up your sentences in two more ways:

- You have to add verbs that are less specific than the verbs you could have used. In (4b), instead of the specific verbs *standardize, measure, quantify,* and *respond,* we have the single vague verb *made.*

- You are likely to make the characters in your story modifiers of nouns or objects of prepositions or to drop them from a sentence altogether: in (4b), the character *we* becomes *our,* and thereafter the rest of the characters are missing in action.

So here are two principles of a clear style:

- Express crucial actions in verbs.

- Make your central characters the subjects of those verbs; keep those subjects short, concrete, and specific.

17.2.4 Diagnosis and Revision

Given how readers judge sentences, we can offer ways to diagnose and revise yours.

To diagnose:

1. Underline the first six or seven words of every clause, whether main or subordinate.

2. Perform two tests:

- Are the underlined subjects concrete characters, not abstractions?

- Do the underlined verbs name specific actions, not general ones like *have, make, do, be,* and so on?

3. If the sentence fails either test, you should probably revise.

To revise:

1. Find the characters you want to tell a story about. If you can't, invent them.

2. Find what those characters are doing. If their actions are in nouns, change them into verbs.

3. Create clauses with your main characters as subjects and their actions as verbs.

You will probably have to recast your sentence in some version of *If X, then Y; X, because Y; Although X, Y; When X, then Y;* and so on.

That's the simple version of revising dense prose into something clearer. Here is a more nuanced one.

17.2.5 Who or What Can Be a Character?

You may have wondered that we called *rain forests* and *the earth's biosphere* "characters," because we usually think of characters as flesh-and-blood people. But for our purposes, a character is anything we can make the subject of a lot of verbs in a sequence of sentences. That means we can also tell stories whose characters are things like *rain forests* and even abstractions like *thought disorders.* In your kind of research, you may have to tell a story about *demographic changes, social mobility, isotherms,* or *gene pools.*

Sometimes you have a choice: a paper in economics might tell a story about real or virtual people, such as *consumers* and the *Federal Reserve Board,* or about abstractions associated with them, such as *savings* and *monetary policy.* Note, however, that you can still make those abstract characters part of a story with action verbs:

5a. When consumers **save** more, the Federal Reserve **changes** its monetary policy to influence how banks **lend** money.

5b. When consumer **savings rise**, Federal Reserve monetary policy **adapts** to **influence** bank **lending** practices.

A passage might be about real people or about abstractions associated with them: *banks* vs. *lending practices*, *savers* vs. *microeconomics*, or *analysts* vs. *predictions*. All things being equal, though, readers prefer characters to be at least concrete things or, better, flesh-and-blood people.

Experts, however, like to tell stories about abstractions (boldfaced; subjects are underlined).

6. Standardized indices to measure **thought disorders** help us quantify how patients respond to different **treatments**. These **measurements** indicate that **treatments** requiring long-term **hospitalization** do not reduce the number of psychotic episodes among schizophrenic patients.

The abstract nominalizations in the second sentence—*measurements, treatments, hospitalization*—refer to concepts as familiar to its intended readers as *doctors* and *patients*. Given those readers, the writer would not need to revise them.

In a way, that example undercuts our advice about avoiding nouns made out of verbs, because now instead of revising every abstract noun into a verb, you have to choose which ones to change and which ones to leave as nouns. For example, the abstract nouns in the second sentence of (6) are the same as those in (7a):

7a. The **hospitalization** of patients without appropriate **treatment** results in the unreliable **measurement** of outcomes.

But we would improve that sentence if we revised those abstract nouns into verbs:

7b. We cannot **measure** outcomes reliably when patients **are hospitalized** but not **treated** appropriately.

So what we offer here is no iron rule of writing, but rather a principle of diagnosis and revision that you must apply judiciously. In general, though, readers prefer sentences whose subjects are short, specific, and concrete. And that usually means flesh-and-blood characters.

17.2.6 Avoiding Excessive Abstraction

You create the worst problems for readers when you make abstract nouns your main character and subjects of your sentences, then sprinkle more abstractions around them. Here is a passage about two abstract characters, *immediate intention* and *prospective intention*. Those characters are obscure enough, but the passage can be clear for its intended readers, so long as it is not thickened with more abstractions (subjects are underlined; verbs and key adjectives are boldfaced):

> 8a. My argument **is** this: The cognitive component of intention **is** quite **complex**. Intention is temporally divisible into two kinds: prospective intention and immediate intention. Prospective intention **represents** a subject's current situation, how he has **acted** similarly in the past, and how he will **act** in the future. That is, the cognitive component of prospective intention **lets** him **plan** ahead. Immediate intention, on the other hand, **monitors** and **guides** his body as he **moves** it. Taken together, these cognitive mechanisms **are** too **complex** to be **explained** by folk psychology.

Note how the story becomes less clear when the key abstraction *intention* is surrounded by other abstract nouns (subjects are underlined; the additional abstractions are boldfaced):

> 8b. The **argument** is this: The cognitive component of intention exhibits a high degree of **complexity**. Intention is temporally divisible into two: prospective intention and immediate intention. The **cognitive function** of prospective intention is the **representation** of a subject's current situation, his similar past **actions**, and his course of future **actions**. That is, the cognitive component of

prospective intention is a **plan**. The **cognitive function** of immediate intention is the **monitoring** and **guidance** of ongoing bodily **movement**. Taken together, these cognitive mechanisms exhibit significant **complexity**. There is, however, limited **capacity** for accounting for this **complexity** found in the folk psychological notion of **belief**, which therefore misses most of the cognitive component of intention.

The point: Don't change every abstract noun into a verb. If your best central character is an abstraction, avoid others you don't need. As always, the trick is knowing which ones you need and which you don't (usually fewer than you think). Knowing one from the other is a skill that comes only from practice—and criticism.

17.2.7 Creating Main Characters

Having qualified our principle once, we complicate it again. If your sentences are readable, your characters will be the subjects of verbs that express the crucial actions those characters are involved in. But most stories have several characters, any one of whom you can turn into a main character by making it the subject of sentences. Take the sentence about rain forests:

> 9. If rain forests are stripped to serve short-term economic interests, the earth's biosphere may be damaged.

That sentence tells a story that implies other characters but does not specify them: Who is stripping the forests? More important, does it matter? This story could focus on them, but who are they?

> 9a. If developers strip rain forests to serve short-term economic interests, they may damage the earth's biosphere.

> 9b. If loggers strip rain forests to serve short-term economic interests, they may damage the earth's biosphere.

> 9c. If Brazil strips its rain forests to serve short-term economic interests, it may damage the earth's biosphere.

Which is best? It depends on whom you want *your readers to think* the story is about. As you revise sentences, put characters in subjects and actions in verbs, when you can. But be sure that the character is your *central* character, if only for that sentence.

17.3 A THIRD PRINCIPLE: OLD BEFORE NEW

There is a third principle of reading and revising even more important than the first two. Fortunately, all three principles are related. Compare the (a) and (b) versions in the following. Which seems clearer? Why? (Hint: Look at the beginnings of sentences, this time not just for characters as subjects, but whether those subjects express information that is familiar or information that is new and therefore unexpected.)

> 10a. Because the naming power of words was distrusted by Locke, he repeated himself often. Seventeenth-century theories of language, especially Wilkins's scheme for a universal language involving the creation of countless symbols for countless meanings, had centered on this naming power. A new era in the study of language that focused on the ambiguous relationship between sense and reference begins with Locke's distrust.

> 10b. Locke often repeated himself because he distrusted the naming power of words. This naming power had been central to seventeenth-century theories of language, especially Wilkins's scheme for a universal language involving the creation of countless symbols for countless meanings. Locke's distrust begins a new era in the study of language, one that focused on the ambiguous relationship between sense and reference.

Most readers prefer (10b), saying not just that (10a) is *too complex* or *inflated*, but that it's also *disjointed*; it doesn't *flow*—impressionistic words that again describe not what we see on the page but how we *feel* about it.

We can explain what causes those impressions if we again apply the "first six or seven words" test. In the disjointed (a) ver-

sion, the sentences after the first one begin with information that a reader could not predict:

> the naming power of words
>
> Seventeenth-century theories of language
>
> A new era in the study of language

In contrast, the sentences after the first one in (10b) begin with information that readers would find familiar:

> Locke
>
> This naming power [repeated from the previous sentence]
>
> Locke's distrust [a useful abstract noun because it repeats something from the previous sentence]

In (10a) each sentence begins unpredictably, so we can't easily see the "topic" of the whole passage. In (10b) each sentence after the first opens with words referring to ideas that readers recall from the previous sentence.

Readers follow a story most easily if they can begin each sentence with a character or idea that is familiar to them, either because it was already mentioned or because it comes from the context. From this principle of reading, we can infer principles of diagnosis and revision:

To diagnose:

1. Underline the first six or seven words of every sentence.

2. Have you underlined words that your readers will find familiar and easy to understand (usually words used before)?

3. If not, revise.

To revise:

1. Make the first six or seven words refer to familiar information, usually something you have mentioned before (typically your main characters).

2. Put at the ends of sentences information that your readers
   will find unpredictable or complex and therefore harder to
   understand.

This old-new principle happily cooperates with the ones about
characters and subjects, because older information usually names
a character (after you introduce it, usually at the *end* of a prior sen-
tence). But should you ever have to choose between beginning a
sentence with a character or with old information, *always choose
the principle of old before new.*

17.4 CHOOSING BETWEEN ACTIVE AND PASSIVE

You may have noted that some of the clearer sentences had pas-
sive verbs. This seems to contradict familiar advice from English
teachers to avoid them. Followed mindlessly, that advice will make
your sentences *less* clear. Rather than worry about active and pas-
sive, ask a simpler question: Do your sentences begin with famil-
iar information, preferably a main character? If you put familiar
characters in your subjects, you will use the active and passive
properly.

For example, which of these two passages "flows" more easily?

11a. The quality of our air and even the climate of the world de-
pend on healthy rain forests in Asia, Africa, and South America.
But the increasing demand for more land for agricultural use and
for wood products for construction worldwide now threatens these
forests with destruction.

11b. The quality of our air and even the climate of the world de-
pend on healthy rain forests in Asia, Africa, and South America.
But these rain forests are now threatened with destruction by the
increasing demand for more land for agricultural use and for wood
products used in construction worldwide.

Most readers think (11b) flows more easily. Why? Note that the be-
ginning of the second sentence in (11b) picks up on the character
introduced at the end of the first sentence:

11b. . . . rain forests in Asia, Africa, and South America. But these
rain forests . . .

The second sentence of (11a), on the other hand, opens with information completely unconnected to the first sentence:

11a. . . . rain forests in Asia, Africa, and South America. But the
increasing demand for more land . . .

In other words, the passive allowed us to move the older, more familiar information from the end of its sentence to its beginning, where it belongs. And that's the main function of the passive: to build sentences that begin with older information. If we don't use the passive when we should, our sentences won't flow as well as they could.

In English classes, students are told that they should use only active verbs, but they hear the opposite in engineering, the natural sciences, and some social sciences. There teachers demand the passive, thinking that it makes writing more objective. Most of that advice is equally misleading. Compare the passive (12a) with the active (12b):

12a. Eye movements **were measured** at tenth-of-second intervals.

12b. We **measured** eye movements at tenth-of-second intervals.

These sentences offer equally objective information, but their *stories* differ: one is about eye movements, the other about a person measuring them, who happens also to be the author. The first is supposed to be more "objective" because it ignores the person and focuses on the movements. But just avoiding *I* or *we* doesn't make writing more "objective." It simply changes the story.

In fact, the issue of the passive is still more complicated. When a scientist uses the passive to describe a *process*, she implies that the process can be repeated by anyone. In this case, the passive is the right choice, because anyone who wanted to repeat the research would have to measure eye movements.

On the other hand, consider this pair of sentences:

13a. It **can be concluded** that the fluctuations result from the Burnes effect.

13b. We **conclude** that the fluctuations result from the Burnes effect.

The active verb in (13b), *conclude*, and its first-person subject, *we*, are not only common in the sciences, but appropriate. The difference? It has to do with the kind of action the verb names. The active (and therefore first person) is appropriate when authors refer to actions that only the *writer/researcher* can perform—not only rhetorical actions, such as *suggest, conclude, argue*, or *show*, but also those for which they get credit as scientists, such as *design* experiments, *solve* problems, or *prove* results. Everyone can *measure*, but only author/researchers are entitled to *claim* what their research means.

Scientists typically use the first person and active verbs at the beginning of journal articles, where they describe how *they* discovered their problem and at the end where they describe how *they* solved it. In between, when they describe processes that anyone can perform, they regularly use the passive.

17.5 A FINAL PRINCIPLE: COMPLEXITY LAST

We have focused on how clauses begin. Now we look at how they end. You can anticipate the principle for ending sentences: if familiar information goes first, the newest, most complex information goes last. This principle is particularly important in three contexts:

- when you introduce a new technical term

- when you present a unit of information that is long and complex

- when you introduce a concept that you intend to develop in what follows

17.5.1 Introducing Technical Terms

When you introduce technical terms new to your readers, construct your sentences so that those terms appear in the last few words. Compare these two:

14a. An understanding of the role of calcium blockers in the control of cardiac irregularity depends on understanding of the calcium activation of muscle groups. The regulatory proteins actin, myosin, tropomyosin, and troponin affect the action of muscle fibers in the sarcomere, the basic unit of muscle contraction.

14b. Muscles contract when their cells are activated by calcium. When heart muscles contract irregularly, we can control them with drugs called calcium blockers. Calcium blockers limit the action of muscle fibers in the basic unit of muscle contraction, known as the sarcomere. It consists of four proteins that regulate contraction: they are actin, myosin, tropomyosin, and troponin.

In (14a) all the technical-sounding terms appear early in the sentences; in (14b) the technical terms appear at the end of the sentences.

17.5.2 Introducing Complex Information

Put complex bundles of ideas that require long phrases or clauses at the end of a sentence, never at the beginning. Compare (11a) and (11b) again:

11a. The quality of our air and even the climate of the world depend on healthy rain forests in Asia, Africa, and South America. But the increasing demand for more land for agricultural use and for wood products for construction worldwide now threatens these forests with destruction.

11b. The quality of our air and even the climate of the world depend on healthy rain forests in Asia, Africa, and South America. But these rain forests are now threatened with destruction by the increasing demand for more land for agricultural use and for wood products used in construction worldwide.

In (11a) the second sentence begins with a long, complex unit of information, a subject that runs on for more than a line. In contrast, the subject of the second sentence in (11b), *these rain forests*, is short, simple, and easy to read, again because the passive verb

(*are now threatened*) lets us flip the short and familiar information to the beginning and the long and complex part to the end.

In short, don't begin your sentences with complexity; save it for the end. Unfortunately that's not easy to do, because you may be so familiar with your ideas that you can't distinguish what is *for your readers* old and simple from what's new and complex.

17.5.3 Introducing What Follows

When you start a paragraph, put at the end of its first or second sentence the key terms that appear in the rest of the paragraph. Which of these two sentences would best introduce the rest of the paragraph that follows?

> 15a. The political situation changed, because disputes over succession to the throne plagued seven of the eight reigns of the Romanov line after Peter the Great.

> 15b. The political situation changed, because after Peter the Great seven of the eight reigns of the Romanov line were plagued by turmoil over disputed succession to the throne.

> The problems began in 1722, when Peter the Great passed a law of succession that terminated the principle of heredity and required the sovereign to appoint a successor. But because many tsars, including Peter, died before they named successors, those who aspired to rule had no authority by appointment, and so their succession was often disputed by lower-level aristocrats. There was turmoil even when successors were appointed.

Most readers feel that (15b) is more closely connected to the rest of the passage. The last few words of (15a) seem unimportant in relation to what follows (in another context, of course, they might be crucial).

So once you've checked the first six or seven words in every sentence, check the last five or six as well. If those words are not the most important, complex, or weighty, revise so that they are. Look especially at the ends of sentences that introduce paragraphs or even sections.

17.6 SPIT AND POLISH

We've focused on those issues of sentence style relevant to writing research reports, and on principles of diagnosis and revision that help us make prose as readable as possible. There are other principles—sentence length, the right choice of words, concision, and so on. But those are issues pertinent to writing of all kinds and are addressed by many books. And, of course, readability alone is not enough. After you revise your style, you still have to check your grammar, spelling, and punctuation. Then you have to make sure that you have observed the accepted conventions for representing numbers, proper names, foreign words, and so on. Though important, those matters fall outside the purview of this book.

☞ **QUICK TIP:** *The Quickest Revision Strategy*

Our advice about revision may seem overly detailed, but if you revise in steps, it's not difficult to follow. The first step is the most important: as you draft, remember to forget these steps (except for this one about remembering). Your first job is to draft something to revise. You will never do that if you keep asking yourself whether you should have just used a verb or a noun. If you don't have time to look at every sentence, start with passages where you found it hard to explain your ideas. When you struggle to write about confusing content, your sentences tend toward confusion as well.

For Clarity and Flow

To diagnose:

1. Highlight the first five or six words in every sentence. Ignore short introductory phrases such as *At first*, *For the most part*, and so on.

2. Run your eye down the page, checking whether you highlighted a consistent set of related words. The words that begin a series of sentences need not be identical, but they should name people or concepts that your readers will see are clearly related. If not, revise.

3. Check the highlighted words in each sentence. They should include a subject that names a character and a verb that names an important action. If not, revise.

To revise:

1. Identify your main characters, real or conceptual. Make them the subjects of verbs.

2. Look for nouns ending in *-tion*, *-ment*, *-ence*, and so on. If they are the subjects of verbs, turn them into verbs.

3. Make sure that each sentence begins with familiar information, preferably a character you have mentioned before.

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For Emphasis

To diagnose:

1. Underline the last four or five words in every sentence.

2. You should have underlined

   - technical-sounding words that you are using for the first time

   - the newest, most complex information

   - information that is most emphatic

   - concepts that the next several sentences will develop

3. If you do not see that information there, revise: put those words last in the sentence.