grammar of its expression. It is the long compound noun phrase:

> Early *childhood thought disorder misdiagnosis* often results from unfamiliarity with recent *research literature* describing such conditions. This paper reviews seven recent studies in which are findings of particular relevance to *pre-adolescent hyperactivity diagnosis* and to *treatment modalities* involving *medication maintenance level evaluation procedures.*

Some grammarians claim we should never modify one noun with another, but that would rule out common phrases such as *stone wall, student center, space shuttle,* and many other useful terms.

But strings of nouns feel lumpy, so avoid them, especially ones you invent. When you find a compound noun of your own invention, revise, especially when it includes nominalizations. Just reverse the order of words and find prepositions to connect them:

1	2	3	4	5
early	childhood	thought	disorder	misdiagnosis
misdiagnose	disordered	thought	in early	childhood
5	4	3	1	2

Re-assembled:

> Physicians misdiagnose[5] disordered[4] thought[3] in young[1] children[2] because they are unfamiliar with recent literature on the subject.

At this point, you may be feeling overwhelmed by all these principles, maybe even wondering whether learning them is worth the effort. Samuel Taylor Coleridge would have thought so, because for him, clarity was a moral issue:

> Whatever is translatable in other and simpler words of the same language, without loss of sense or dignity, is bad.

Lesson

5

Cohesion and Coherence

If he would inform, he must advance regularly from Things known to things unknown, distinctly without Confusion, and the lower he begins the better. It is a common Fault in Writers, to allow their Readers too much knowledge: They begin with that which should be the Middle, and skipping backwards and forwards, 'tis impossible for any one but he who is perfect in the Subject before, to understand their Work, and such an one has no Occasion to read it.

—BENJAMIN FRANKLIN

UNDERSTANDING COHERENCE

So far, I've discussed clarity as if we could achieve it just by mapping characters and actions onto subjects and verbs. But readers need more than clear sentences before they think a passage seems *coherent*. These two passages, for example, say much the same thing but feel different:

1a. The basis of our American democracy—equal opportunity for all—is being threatened by college costs that have been rising fast for the last several years. Increases in family income have been significantly outpaced by increases in tuition at our colleges and universities during that period. Only the children of the wealthiest families in our society will be able to afford a college education if this trend continues. Knowledge and intellectual skills, in addition to wealth, will divide us as a people, when that happens. Equal opportunity and the egalitarian basis of our democratic society could be eroded by such a divide.

✓ 1b. In the last several years, college costs have been rising so fast that they are now threatening the basis of our American democracy—equal opportunity for all. During that period, tuition has significantly outpaced increases in family income. If this trend continues, a college education will soon be affordable only by the children of the wealthiest families in our society. When that happens, we will be divided as a people not only by wealth, but by knowledge and intellectual skills. Such a divide will erode equal opportunity and the egalitarian basis of our democratic society.

The first seems choppy, even disorganized; the second seems to "hang together" better.

But like the word *clarity,* the words *choppy* and *disorganized* refer not to anything on the page, but to how the words on the page make us *feel.* What is it about the *arrangement* of words in (1a) that makes us feel we are moving through it in fits and starts? Why does (1b) seem to flow more easily? We base those judgments on two aspects of word order:

- We judge sequences of sentences to be *cohesive* depending on how each sentence ends and the next begins.
- We judge a whole passage to be *coherent* depending on how all the sentences in a passage cumulatively begin. (In Lesson 6, we discuss two more principles of coherence.)

Cohesion

The Sense of Flow

In Lesson 4, we devoted a few pages (48–50) to that familiar advice, *Avoid passives*. If we always did, we would choose the active verb in sentence (2a) below over the passive in (2b):

2a. The collapse of a dead star into a point perhaps no larger than a marble **CREATES**$_{\text{active}}$ a black hole.

2b. A black hole **IS CREATED**$_{\text{passive}}$ by the collapse of a dead star into a point perhaps no larger than a marble.

But we might choose otherwise if we put those sentences between these two:

> [1]Some astonishing questions about the nature of the universe have been raised by scientists studying black holes in space. [2a/b][———]. [3]So much matter compressed into so little volume changes the fabric of space around it in puzzling ways.

Here's the active sentence there:

> 1a. [1]Some astonishing questions about the nature of the universe have been raised by scientists studying black holes in space. [2a]The collapse of a dead star into a point perhaps no larger than a marble creates a black hole. [3]So much matter compressed into so little volume changes the fabric of space around it in puzzling ways.

And here's the passive:

> 1b. [1]Some astonishing questions about the nature of the universe have been raised by scientists studying black holes in space. [2b]A black hole is created by the collapse of a dead star into a point perhaps no larger than a marble. [3]So much matter compressed into so little volume changes the fabric of space around it in puzzling ways.

Our sense of "flow" calls not for (2a), the sentence with the active verb, but for (2b), the one with the passive.

The reason is clear: the last four words of the first sentence introduce an important character—*black holes in space:*

> [1]Some astonishing questions about the nature of the universe have been raised by scientists studying **black holes in space.**

If we follow it with sentence (2a), the first concepts we hit are collapsed stars and marbles, information that seems to fall from the sky:

> [1]. . . universe have been raised by scientists studying black holes in space. **[2a]The collapse of a dead star into a point perhaps no larger than a marble** creates . . .

But if we follow sentence (1) with (2b), the sentence with the passive verb, we connect those sentences more smoothly, because now the first words in (2b) repeat what we just read at the end of (1):

> [1]. . . studying **black holes in space.** [2b]**A black hole** is created by the collapse of . . .

Note too that the passive also lets us put at the *end* of sentence (2b) words that connect it to the *beginning* of sentence (3):

> [1]. . . black holes in space. [2b]A black hole is created by the collapse of a dead star into **a point perhaps no larger than a marble.** [3]**So much matter compressed into so little volume** changes the fabric of space around it in puzzling ways.

Here's the point: Sentences are cohesive when the last few words of one set up information that appears in the first few words of the next. That gives us our experience of flow. And in fact, that's the biggest reason the passive is in the language: it lets us arrange sentences so that they flow easily from one to the next. We can integrate that insight with our principles about subject and characters, and verbs and actions.

Fixed			
Variable	Familiar		
Fixed	Subject	Verb	______
Variable	Character	Action	______

Diagnosis and Revision

That principle of reading leads us to two principles of revising. They are mirror images of each other. The first is this:

1. **Begin sentences with information familiar to your readers.** Readers get that familiar information from two sources: first, they remember words from the sentence they just read. That's why the beginning of sentence (2b) about black holes coheres with the end of (1) and why the beginning of (3) coheres with the end of (2b):

> [1]. . . questions about the nature of the universe have been raised by scientists studying **[black holes in space.** [2b]**A black hole]** is created by the collapse of a dead star into **[a point perhaps no larger than a marble. So much matter compressed into so little volume]** changes the fabric of space . . .

Second, readers bring to a sentence a general knowledge of its content. We would not be surprised, for example, if a sentence (4) in that paragraph about black holes had begun like this:

> . . . changes the fabric of space around it in puzzling ways. [4]**Astronomers have reported** that . . .

The word *Astronomers* did not appear in the preceding sentence, but since we are reading about space, we wouldn't be surprised by a reference to them.

The second principle is the flip side of the first.

2. **End sentences with information readers cannot predict.** Readers always prefer to read what's hard *after* they read what's easy.

You can more easily see when others fail to observe those principles in their writing than you can in your own, because after you've worked on your own for a while, it all seems familiar—to you. But hard as it is to distinguish old from new in your own mind, you have to try, because readers want to begin sentences

with information that is familiar to *them,* and only then move on to information that is new.

> ***Here's the point:*** In every *sequence* of sentences you write, you have to balance principles that make individual sentences clear and principles that make a passage cohesive. *But in that tradeoff, give priority to helping readers create a sense of cohesive flow.* That means starting sentences with information that readers are familiar with. Fortunately, this principle about old and new information cooperates with the principle of characters as subjects. Once you mention your main characters, readers take them as familiar information. So when you regularly get characters up front, you also get up front familiar information.

COHERENCE

The Sense of the Whole

When you create cohesive flow, you take the first step toward helping readers feel that your prose hangs together. But they will judge you to be a competent writer only when they feel that your writing is not just cohesive but *coherent,* a quality different from cohesion. It's easy to confuse the words *cohesion* and *coherence* because they sound alike.

- Think of *cohesion* as pairs of sentences fitting together the way pieces of a jigsaw puzzle do (recall the black hole sentences).
- Think of *coherence* as seeing what all the sentences in a piece of writing add up to, the way all the pieces in a puzzle add up to the picture on the box.

This next passage has good cohesive flow because we move from the end of each sentence to the next without a hitch:

> Sayner, Wisconsin, is the snowmobile capital of the world. The buzzing of snowmobile engines fills the air, and their tanklike tracks crisscross the snow. The snow reminds me of Mom's mashed potatoes, covered with furrows I would draw with my fork. Her mashed potatoes usually make me sick—that's why I play with them. I like to make a hole in the middle of the potatoes and fill it with melted butter. This behavior has been the subject of long chats between me and my analyst.

Though its individual sentences are cohesive, that passage as a whole is incoherent. (It was created by six different writers, one of whom wrote the first sentence, with the other five sequentially adding one sentence, knowing only the immediately preceding one.) It is incoherent for three reasons:

1. The subjects of the sentences are entirely unrelated.
2. The sentences share no common "themes" or ideas.
3. The paragraph has no one sentence that states what the whole passage supports or explains.

Subjects, Topics, Grammar, and Coherence

For five hundred years, English teachers have defined *subject* in two ways:

1. the "doer" of the action
2. what a sentence is "about," its main topic

In Lessons 3 and 4, we saw why that first definition doesn't work: the subjects of many sentences are actions: *The **explosion** was loud.*

But also flawed is that second definition: *A subject is what a sentence is about.* It is flawed because, often, the subject of a sentence doesn't state its main topic, the idea that the rest of

the sentence "comments" on. That "topicalizing" function can be performed by other parts of a sentence. For example, none of the main subjects in these sentences name their topics:

- The main subject of this sentence (italicized) is *it,* but the topic of the sentence (boldfaced) is *your claim,* the object of the preposition *for:*

  It is impossible for **your claim** to be proved.

- The subject of this sentence is *I,* but its topic is *this question,* the object of *to:*

  In regard to **this question,** *I* believe more research is needed.

- The subject of this sentence is *it,* but its topic is *our proposal,* the subject of a verb in a subordinate clause:

  It is likely that **our proposal** will be accepted.

- The subject of this sentence is *no one,* but its topic is *such results,* a direct object shifted to the front for emphasis:

  Such results *no one* could have predicted.

> ***Here's the point:*** We use the term *topic* to mean what a sentence is about, but that topic is not always its grammatical subject. *But readers expect it to be.* They judge writing to be clear and direct when they quickly see topics and subject/characters in the same words.

Diagnosing and Revising Topics

As with other issues of clarity, you can't predict how readers will judge your writing just by reading it, because you know what it means too well. You must analyze it more objectively. This passage feels choppy, out of focus, even disorganized:

> Consistent ideas toward the beginnings of sentences help readers understand what a passage is generally about. A sense of coherence

arises when a sequence of topics comprises a narrow set of related ideas. But the context of each sentence is lost by seemingly random shifts of topics. Unfocused paragraphs result when that happens.

Here's how to diagnose its problems and revise it. You can diagnose and revise your own writing in the same way.

1. **Diagnose**
   a. Underline the first seven or eight words of every sentence in a passage.
   b. If you can, underline the first five or six words of every clause in those sentences, both subordinate and main.

   Consistent ideas toward the beginnings of sentences, especially in their subjects, help readers understand what a passage is generally about. A sense of coherence arises when a sequence of topics comprises a narrow set of related ideas. But the context of each sentence is lost by seemingly random shifts of topics. Unfocused, even disorganized paragraphs result when that happens.

2. **Analyze**
   a. Are the underlined words a relatively small set of related ideas? Even if *you* see how they are related, will your readers? For that passage, the answer is no.
   b. Do those words name the most important characters, real or abstract? Again, the answer is no.

3. **Rewrite**
   a. In most (not necessarily all) of your sentences, use subjects to name their topics.
   b. Be sure that those topics are, in context, familiar information to your readers.

Here is that passage revised, with the new topics boldfaced.

> **Readers** understand what a passage is generally about when **they** see consistent ideas toward the beginnings of sentences, especially in their subjects. **They** feel a passage is coherent when **they** read a sequence of topics that focuses on a narrow set of related ideas.

> But when topics seem to shift randomly, **readers** lose the context of each sentence. When **that** happens, **they** feel they are reading paragraphs that are unfocused and even disorganized.

The Difficult Craft of Beginning a Sentence Well

It's hard to begin a sentence well. Readers want to get to topic/subjects quickly, but too often, we begin sentences in ways that keep readers from getting there. It's called *throat-clearing*. Throat-clearing typically begins with metadiscourse (review pp. 51–53) that connects a sentence to the previous one. These include common transitions such as *and, but, therefore:*

> And therefore . . .

We then add a second kind of metadiscourse that expresses our attitude toward what is coming, words such as *fortunately, perhaps, allegedly, it is important to note, for the most part,* or *politically speaking:*

> And therefore, it is important to note . . .

Then we indicate time, place, or manner:

> And therefore, it is important to note that, in eastern states since 1980 . . .

Only then do we get to the topic/subject:

> And, therefore, it is important to note that, in eastern states since 1980, **acid rain** has become a serious problem.

When you open several sentences like that, your readers have a hard time seeing not just what each sentence is about, but the focus of a whole passage. When you find a sentence with lots of words before its subject/topic, revise:

✓ Since 1980, therefore, **acid rain** has become a political problem in the eastern states.

Here's the point: In most of your sentences (not necessarily all), start with the subject and make that subject the topic of the sentence.

Integrating the Principles

We can bring together these principles about old and new and strings of consistent topics with the principles about characters as subjects and actions as verbs (I'll fill in the empty boxes in Lesson 6):

Fixed	Topic		
Variable	Familiar, short		
Fixed	Subject	Verb	______
Variable	Character	Action	______

Learning to write clear sentences is hard enough. Even more demanding is assembling those sentences into a passage that is both cohesive and coherent. The nineteenth century essayist Thomas De Quincey understood its importance:

> The two capital secrets in the art of prose composition are these: first the philosophy of translation and connection; . . . all fluent and effective composition depends on the connections; secondly, the way in which sentences are made to modify each other; for the most powerful effects in which eloquence arise out of this reverberation, as it were, from each other in a rapid succession of sentences.