

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

The two capital secrets in the art of prose composition are these: first, the philosophy of transition and connection; or the art by which one step in an evolution of thought is made to arise out of another: 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 written eloquence arise out of this reverberation, as it were, from each other in a rapid succession of sentences.

—THOMAS DE QUINCEY

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 individually clear sentences before they think a whole passage seems *coherent*. These two passages, for example, say much the same thing but feel very 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.

I'll discuss cohesion and one kind of coherence in this lesson, then say more about coherence in Lesson 11.

COHESION: A SENSE OF FLOW

In Lesson 4, we devoted a few pages (62–63) 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** active a black hole.

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

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

¹Some astonishing questions about the nature of the universe have been raised by scientists studying black holes in space. ^{2a/b}[_____].

³So much matter compressed into so little volume changes the fabric of space around it in puzzling ways.

Here's the active sentence there:

1a. ¹Some 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. ³So much matter compressed into so little volume changes the fabric of space around it in puzzling ways.

And here's the passive:

1b. ¹Some 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. ³So 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*:

¹Some 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 come out of nowhere:

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's what gives us our experience of flow. And in fact, that's the biggest reason the passive is in the language: to let us arrange sentences so that they flow from one to the next easily. 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	_____

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Diagnosis and Revision

That principle of reading suggests two principles of writing. 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 subject. We would not have been 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.
⁴Astronomers have reported that ...

The word *Astronomers* did not appear in the preceding sentence, but since we are reading about space and black holes, 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 that readers cannot anticipate.

Readers always prefer to read what's easy before what's hard, and what's familiar and simple is easier to understand than what's new and complex.

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 writing, 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.

QUICK TIP: Writers often refer to something in a previous sentence with words such as *this, these, that, those, another, such, second, or more* (in comparison to something in the prior sentence). When you use any of those signals, try to put them at or close to the beginning of the sentence that you use them in:

How to calculate credits for classes taken in a community colleges is **another** issue that we must consider.

✓ **Another** issue that we must consider is how to calculate credits for classes taken in a community college.

Exercise 5.1

Revise these two passages to improve their old-new flow. In 1, I boldface the words that seem to me to be old information. Revise the sentences so that old information appears first.

- Two aims—the recovery of the American economy and the modernization of America into a military power—were **in the president's mind when he assumed his office**. The drop in unemployment figures and inflation, and the increase in the GNP testifies to **his success in the first**. But our increased involvement in international conflict without any clear set of political goals indicates **less success with the second**. Nevertheless, increases in the military budget and a good deal of saber rattling **pleased the American voter**.

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2. The components of Abco's profitability, particularly growth in Asian markets, will be highlighted in our report to demonstrate its advantages versus competitors. Revenue returns along several dimensions—product type, end-use, distribution channels, etc.—will provide a basis for this analysis. Likely growth prospects of Abco's newest product lines will depend most on its ability in regard to the development of distribution channels in China, according to our projections. A range of innovative strategies will be needed to support the introduction of new products.

COHERENCE: A SENSE OF THE WHOLE

When you create cohesive flow, you take the first step toward helping readers think 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 two 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 tank-like 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 we move from sentence to sentence easily, 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.

I will discuss that second point in the next lesson and the third one in Lesson 11. The rest of this lesson focuses on the first point, shared subjects.

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 names their topics.

- The main subject of this sentence (italicized) is *it*, but the topic of the sentence 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.

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- 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 it too well. You must analyze it in a more objective way. 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

- Underline the first seven or eight words of every sentence in a passage.
- 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

- Do the underlined words constitute 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.
- Do those words name the most important characters, real or abstract? Again, the answer is no.

3. Rewrite

- In most (not necessarily all) of your sentences, use subjects to name their topics.
- Put those subjects close to the beginning of the sentences.

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.

QUICK TIP: When you start to draft each new section of your paper, jot down the names of the characters you intend to write about. They should include the flesh-and-blood characters, the real doers, but they should also include important concepts that you will discuss. As you draft, try to put those characters into the subjects of most of your sentences. If you write several sentences without mentioning those characters, you may have gotten off track.

THE DIFFICULT CRAFT OF BEGINNING A SENTENCE WELL

It is 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 METADISOURSE that connects

a sentence to the previous one, with 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 their cumulative focus that makes a whole passage coherent. 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: When you begin sentences, choose your topics carefully. Make most of them subjects of your sentences. They should also be short, concrete, familiar information, and more often than not, they should be the main characters in the story you are telling, the sources of the actions in your verbs. Most important, keep them consistent: do not vary the subjects of your sentences for the sake of variety. Your topics should tell your readers what a passage is globally "about."

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		
Fixed	Subject	Verb	_____
Variable	Character	Action	_____

Exercise 5.2

Revise these passages to give them consistent topic strings. First determine the characters, then their actions. Then start each sentence with a character, and let the sentence take you where it wants to go. In (1), words that could be consistent subject/topics are boldfaced.

1. **Vegetation** covers the earth, except for those areas continuously covered with ice or utterly scorched by continual heat. Richly fertilized plains and river valleys are places where **plants** grow most richly, but also at the edge of perpetual snow in high mountains. The ocean and its edges as well as in and around lakes and swamps are **densely vegetated**. The cracks of busy city sidewalks have **plants** in them as well as in seemingly barren cliffs. Before humans existed, the earth was covered with **vegetation**, and the earth will have **vegetation** long after evolutionary history swallows us up.
2. The power to create and communicate a new message to fit a new experience is not a competence animals have in their natural states. Their genetic code limits the number and kind of messages that they can communicate. Information about distance, direction, source, and richness of pollen in flowers constitutes the only information that can be communicated by bees, for example. A limited repertoire of messages delivered in the same way, for generation after generation, is characteristic of animals of the same species, in all significant respects.
3. The importance of language skills in children's problem-solving ability was stressed by Jones (1985) in his paper on children's

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thinking. Improvement in nonverbal problem solving was reported to have occurred as a result of improvements in language skills. The use of previously acquired language habits for problem articulation and activation of knowledge previously learned through language are thought to be the cause of better performance. Therefore, systematic practice in the verbal formulation of nonlinguistic problems prior to attempts at their solution might be an avenue for exploration in the enhancement of problem solving in general.

TWO QUALIFICATIONS

Alleged Monotony

At this point, you may be conflicted by that common advice *Vary how you begin your sentences*. That's a bad idea, especially when you change subjects just to make them different. You may think a passage is monotonous if you see the same topic in several of its sentences *in your own prose*. But your readers are less likely to notice, because they will be focusing on your ideas.

On the other hand, you might revise if you find you have used exactly the same words for the same topics in exactly the same positions. This passage goes over the top in that kind of consistency:

"**Moral climate**" is created when an objectivized moral standard for treating people is accepted by others. **Moral climate** results from norms of behavior that are accepted by society whereby if people conform they are socially approved of, or if they don't they are shunned. In this light, **moral climate** acts as a reason to refrain from saying or doing things that the community does not support. **A moral climate** encourages individuals to conform to a moral standard and apply that standard to their own circumstances.

Be cautious, though: most writers change topics too often.

Faked Cohesion

Some writers try to fake coherence by lacing their prose with conjunctions like *thus, therefore, however*, and so on, regardless of whether they signal real logical connections. An example:

Because the press is the major medium of interaction between the president and the people, how it portrays him influences his popularity.

Therefore, it should report on the president objectively. Both reporters and the president are human, **however**, subject to error and favoritism. **Also**, people act differently in public than they do in private. **Hence**, to understand a person, it is important to know the whole person, his environment, upbringing, and education. **Indeed**, from the correspondence with his family, we can learn much about Harry S. Truman, our thirty-third president.

Experienced writers use these connecting devices, but they depend more on the logical flow of their ideas. They are especially careful not to overuse words like *and, also, moreover, another*, and so on, words that say simply *Here's one more thing*. You need a *but* or *however* when you contradict or qualify what you just said, and you can use a *therefore* or *consequently* to wind up a line of reasoning. But avoid using words like these more than a few times a page. Your readers don't need them when your sentences are cohesive and the passage they constitute is coherent.

Exercise 5.3

Revise these passages to give them more consistent topic strings. First, decide who the main characters should be, then make them the subjects of verbs expressing important actions. In the first passage, I boldface topics so that you can see how inconsistent they are.

1. **Some potential threats** exist in the modern mass communications media, though there are many significant advantages. If a **powerful minority** should happen to control it, **public opinion** could be manipulated through biased reporting. And while a **wide knowledge of public affairs** is a great advantage that results from national coverage, **divisiveness and factionalism** can be accentuated by connecting otherwise isolated, local conflicts into a single larger conflict as a result of showing that **conflicts about the same issues** are occurring in different places. It will always be true, of course, that **human nature** produces differences of opinion, but **the threat of faction and division** may be reinforced when **national coverage** publicizes uninformed opinions. According to some, **education** can suppress faction when **the true nature of conflicts** reaches the public through the media, but **history** has shown that as **much coverage** is given to people who encourage conflict as to people who try to remove conflict.

2. Some sort of palace revolt or popular revolution plagued seven of eight reigns of the Romanov line after Peter the Great. In 1722, achievement by merit was made the basis of succession when the principle of heredity was terminated by Peter. This resulted in many tsars' not appointing a successor before dying, including Peter. Ivan VI was less than two months old when appointed by Czarina Anna, but Elizabeth, daughter of Peter the Great, defeated Anna and ascended to the throne in 1741. Succession not dependent upon authority resulted in the boyars' regularly disputing who was to become sovereign. Male primogeniture became the law in 1797 when Paul I codified the law of succession. But conspirators strangled him (one of whom was probably his son, Alexander I).
3. Many issues other than science, domestic politics in particular, faced Truman when he was considering the Oppenheimer committee's recommendation to stop the hydrogen bomb project. A Sino-Soviet bloc had been proclaimed by Russia and China, so the Cold War was becoming an issue. Support for Truman's foreign policy was shrinking among Republican leaders in Congress. And the first Russian atom bomb test made the public demand a strong response from him. Truman's conclusion that he could not afford letting the public think that Russia had been allowed to be first in developing the most powerful weapon yet was an inevitable one. The risk in the Oppenheimer recommendation was worth taking according to some historians, but the political issues that Truman had to face were too powerful to ignore.

Exercise 5.4

The point of this exercise is to see that simply by changing subjects, you change the feel of a passage. In his essay, "Stranger in the Village," the African-American writer James Baldwin reflects on his relationship to European Christianity. In the first sentence of his essay, he makes the cathedral at Chartres the topic and a metaphorical character:

The cathedral at Chartres, I have said, says something to the people of this village which it cannot say to me, but it is important to understand that **this cathedral** says something to me which it cannot say to them.

But in the second sentence, he switches the topic/subjects to the villagers, then to himself:

Perhaps **they** are struck by the power of the spires, the glory of the windows; but **they** have known God, after all, longer than I have known him, and in a different way, and I am terrified . . .

Nothing forced him to choose those topics. He could have written this:

I have said that I hear something from the cathedral at Chartres that **the people** of this village do not hear, but it is important to understand that . . .

Experiment with Baldwin's passage by changing its topics. First, focus on Baldwin (as above). Then revise a second time, focusing on the people of Chartres, then a third time focusing on the architecture. How does the feel of the passage change? Why did Baldwin make the choices he did, do you think? (No one can know the right answer.) Here is his passage. I boldface topics; you will not be able to change them all.

The cathedral at Chartres, I have said, says something to the people of this village which it cannot say to me, but it is important to understand that **this cathedral** says something to me which it cannot say to them. Perhaps **they** are struck by the power of the spires, the glory of the windows; but **they** have known God, after all, longer than I have known him, and in a different way, and I am terrified by the slippery bottomless well to be found in the crypt, down which **heretics** were hurled to death, and by the obscene, inescapable gargoyles jutting out of the stone and seeming to say that **God and the devil** can never be divorced. I doubt that **the villagers** think of the devil when **they** face a cathedral because **they** have never been identified with the devil. But I must accept the status which **myth**, if nothing else, gives me in the West before I can hope to change the myth.

What does this exercise suggest about "natural" connections between characters and subjects? What does it imply about how we understand who's responsible for what actions? How much can a writer control how we decide who's responsible for the real action in the world? Which is more accurate, *I am teaching you* or *you are learning from me*? Does it matter? We return to these questions in Lesson 12.

SUMMING UP

We can sum up this lesson in this model:

Fixed	Topic		
Variable	Familiar		
Fixed	Subject	Verb	_____
Variable	Character	Action	_____

It represents two principles:

1. Begin sentences with subjects that communicate old information, information that your readers are familiar with:

The number of dead in the Civil War exceeded all other wars in American history combined. A reason for the lingering animosity between North and South today is **the memory of this terrible carnage**.

- ✓ Of all the wars in American history, none has exceeded the Civil War in the number of dead. **The memory of this terrible carnage** is one reason for the lingering animosity between North and South today.

2. Through a series of sentences, keep your topics short and reasonably consistent:

Competition by Asian companies with American companies in the Pacific is the first phase of this study. **Labor costs and the ability to introduce new products quickly in particular** are examined. **A plan that will show American industry how to restructure its facilities** will be developed from this study.

- ✓ In the first phase of this study, **we** examine how **Asian companies** compete with American companies in the Pacific region. **We** examine in particular their labor costs and ability to introduce new products quickly. **We** develop from this study a **plan** that will show **American industry** how to restructure its facilities.

Lesson

6

Emphasis

"Begin at the beginning," the King said, gravely, "and go on till you come to the end; then stop."

—LEWIS CARROLL

Beginning and end shake hands with each other.

—GERMAN PROVERB

In the end is my beginning.

—T. S. ELIOT

All's well that ends well.

—WILLIAM SHAKESPEARE

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